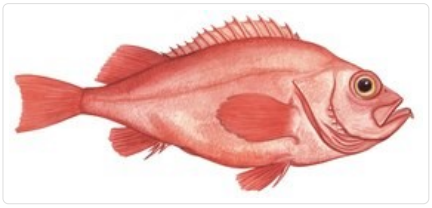
Integrated Fisheries Management Plan: Groundfish, Newfoundland and Labrador Region - NAFO Sub-Division 3Ps

Foreword

Atlantic cod



Redfish

Greenland halibut

American plaice

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for the Newfoundland and Labrador Region groundfish fishery in Northwest Atlantic Fisheries Organization (NAFO) Sub-Division 3Ps, as well as the management measures that will be used to achieve these objectives. This document also serves to communicate basic information on the fishery and its management to Fisheries and Oceans Canada (DFO) staff, legislated co-management boards and committees, 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 discretionary powers of the Minister of Fisheries, Oceans and the Canadian Coast Guard (the "Minister") 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 claim agreements, the provisions of land claims agreements will

prevail to the extent of the inconsistency.

As with any policy, the Minister retains the discretion to make exceptions to, or to change, this policy at any time. It is, however, DFO's expectation and intention to follow the management process set out in this IFMP, with a view to contributing to increased certainty and direction for the groundfish fishery in Newfoundland and Labrador.

This IFMP will be in effect until it is replaced. While the elements of this plan will remain in effect indefinitely, quotas are subject to annual review and may be adjusted based on updated Science information. This could include changes to the Total Allowable Catch (TAC), as well as adjustments to annexes and website listings.

William McGillivray

Regional Director General

Newfoundland and Labrador Region

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1.0 Overview of the fishery

1.1 History of the fishery

The groundfish fishery, and particularly the Atlantic cod fishery, has for centuries been a significant part of the history, economy, and culture of Newfoundland and Labrador (NL). Prior to the 1950s, the fishery was primarily conducted inshore with small vessels, using a variety of gear types such as gillnets, handlines and traps. In the post-World War II era, a larger-scale commercial fishery began for several groundfish species including Atlantic cod, Atlantic halibut, Greenland halibut, Pollock and Redfish in NL, including in NAFO Sub-Division 3Ps. This post-war period saw technological and geographic expansion of the fishery, with large oFffshore trawling vessels and the otter trawl fleet beginning to fish in NL and Nova Scotia waters. This resulted in a dramatic increase in groundfish landings by 1968.

As fishing capacity increased throughout the 1960s and 1970s, the intensified fishing pressure began to have an impact on fish stocks and groundfish habitat in Atlantic Canada. In 1977, Canada signed on to the United Nations Convention on the Law of the Sea (UNCLOS) and extended its marine jurisdiction from 12 nautical miles from the coastline, to 200 nautical miles. Initially, some NAFO Contracting Parties were permitted to fish in Canadian fisheries waters with authorization from Canada; however, in recent decades all foreign fishing activity has been restricted to the NAFO Regulatory Area outside the 200-mile exclusive economic zone (EEZ). In respect of the French Islands Saint Pierre and Miquelon, this French maritime zone sits entirely inside the Canadian EEZ. There are four groundfish stocks in 3Ps that are jointly managed between Canada and France and can be fished in the maritime zone of the other if licensed to do so under the *Procès-verbal Applying the March 27, 1972 Agreement between Canada and France on Their Mutual Fishing Relations.* Refer to Section 1.6 for further information.

By the 1980s, the commercial fishery in NL was highly dependent on cod, which supported significant employment in the harvesting and processing sectors. In 3Ps the average annual Canadian landings of cod totaled approximately 30,000 tonnes, with a landed value of approximately $12 million. By 1986, there were about 200 registered processing plants active in the province, providing employment to approximately 186 communities. About 20 of these plants were in communities on the south coast and they were producing groundfish, largely cod, supplied primarily by vessels less than 65 feet. Some plants were also supplied by larger offshore vessels and

several of these plants were located on the south coast.

A commercial moratorium was imposed on the 3Ps cod stock in August 1993, due to substantial declines in catches and stock biomass. As most inshore fleets in NL were primarily dependent on the cod fishery, the closure resulted in severe declines in revenue for those enterprises and significant economic impact within the province. The 3Ps cod moratorium was followed by reductions and closures of other 3Ps groundfish stocks, including American plaice, Haddock, Grenadier and Pollock.

The 3Ps cod fishery reopened in May 1997. In the late 1990s, there were about 1,100 active fishing enterprises based in 3Ps with groundfish landings. In 1998 and 1999, these enterprises had groundfish landings of approximately 15,000 and 22,000 tonnes. Cod accounted for over 90% of total groundfish landed value and accounted for approximately 42% of total fishing revenue.

Since that time, other species, such as Snow crab and lobster, have increased in significance and become large contributors to the average total fishing revenue for enterprises active in 3Ps. Refer to Section 3.1 for a socio-economic profile of the 3Ps groundfish fishery for the recent-time period.

Currently, the majority of 3Ps groundfish fishing activity is conducted in the Fortune Bay and Placentia Bay (Unit Areas 3Psb and 3Psc, respectively) for the inshore fleets and St Pierre Bank (Unit Area 3Psh) for the offshore fleet (refer to Section 1.4, Figure 2).

1.2 Type of fishery

The groundfish fishery in 3Ps is primarily commercial, with recreational and Indigenous (Food, Social and Ceremonial) components.

Commercial

The following species are currently taken in directed groundfish fisheries or as bycatch in 3Ps:

- American plaice
- Atlantic cod
- Atlantic halibut
- Greenland halibut (Turbot)
- Grenadier
- Haddock
- Lumpfish
- Monkfish
- Pollock
- Redfish
- Skate

- White hake
- Winter flounder (Blackback)
- Witch flounder (Greysole)
- Yellowtail flounder
- Silver hake

There are seven distinct domestic fleet sectors involved in the commercial groundfish fishery in 3Ps, which include commercial and communal-commercial licences:

- Inshore small vessel fleet, Max 49’ 11” (15.2m)[1], fixed gear
- Nearshore large vessel fleet, Max 64’ 11” (19.8m), fixed gear
- Nearshore large vessel fleet, Max 64’ 11” (19.8m), and extra large vessel fleet, Max 89’ 11” (27.4m), mobile gear
- Midshore (65-100’), fixed gear
- Midshore (65-100’), mobile gear
- Offshore (vessels greater than 100’ in length overall)
- Scandinavian longliners (greater than 100’), fixed gear

Note: [1] January 1, 2023, the <40’ fleet was officially changed to the small vessel fleet, Max 49’ 11”, as Independent core harvesters with a former vessel eligibility of 39’ 11” are now permitted to register a vessel up to maximum 49’ 11”, a change that was approved by the Minister of DFO.

The management of these sector groups is integrated, with all groups subject to at-sea observer coverage and dockside monitoring program (DMP). Most fleets and fisheries are subject to Enterprise Allocation (EA) or Individual Quota (IQ) management regimes; however, where these management regimes are not in place, similar management tools are often used, such as:

- harvesting caps;
- trip limits; and
- weekly limits.

Recreational

Since 2006, a recreational groundfish fishery has taken in place in all areas across NL Region, including in 3Ps. The recreational groundfish fishery predominately targets cod. Current measures used to manage the recreational groundfish fishery include season dates, gear restriction (angling gear and hand lines only), and retention limits (up to 5 groundfish per person per day to a maximum of 15 fish per boat). In 2023, the recreational groundfish fishery was open for a total of 39 days between July 1 and October 1. Refer to the Fisheries Management Decision for further details.

Indigenous

Indigenous access to fisheries is authorized via a communal licence issued by DFO under the authority of the *Aboriginal Communal Fishing Licences Regulations*. There are two types of communal licences:

1. communal commercial and
2. food, social and ceremonial (FSC) licences.

They are issued communally to the respective Indigenous group, and not to individual group members.

Communal commercial licences are fished in a manner that is comparable to the commercial fishery with the same management measures.

The 1990 Supreme Court of Canada, Sparrow decision ruled that where an Indigenous group has a right to fish for FSC purposes, it takes priority, after conservation, over other uses of the resource.

DFO negotiates FSC licenses with eligible Indigenous groups annually. FSC licences contain conditions respecting a variety of fisheries management measures such as, but not limited to, species, harvest limits, fishing areas and seasons. The agreements may also provide for fisheries related economic opportunities.

Aquaculture

DFO continues to support the research and development of the aquaculture sector. Under the Access to Wild Resources as it Applies to Aquaculture Policy, the Department will provide the aquaculture industry with reasonable access to the wild groundfish resource by scientific licence to assist with industry development (growth and diversification). Requests to access the wild resource will be contingent upon stakeholders providing detailed project proposals to DFO for review and approval.

1.3 Participants

Commercial

In 2022, there were a total of 592 NL inshore <65’ enterprises with groundfish licenses in 3Ps. Of this total, approximately 53% (or 312) were active with groundfish landings, operating from 333 vessels. For vessels >65’, approximately 5 vessels had 3Ps groundfish landings in the NL Region in 2022. Additionally, 13 active enterprises were operating from 25 vessels, landing 3Ps groundfish in the Maritimes region.

Recreational

A licence is currently not required for the recreational harvest of groundfish. The fishery is open to both residents and non-residents and the level of participation varies annually. Retention of Atlantic halibut, Spotted and

Northern wolffish, and any species of shark is prohibited. Sculpins and cunners may be released. All other groundfish caught must be retained and are part of the daily bag limit.

Indigenous

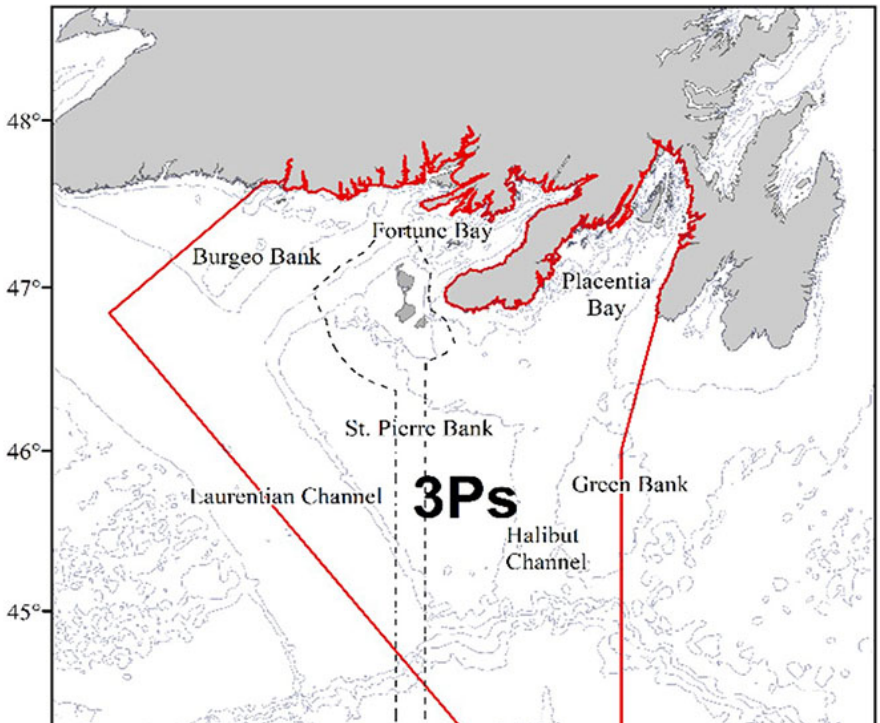
As of September 2023, there has been one Food, Social, and Ceremonial Fishery (FSC) licence issued with access to 3Ps groundfish, specifically Atlantic cod and Redfish, as well as a total of 22 3Ps communal commercial groundfish licences authorized in the NL Region to the following Indigenous groups:

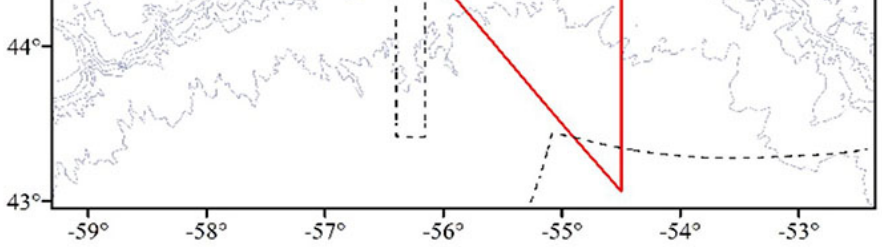
- Miawpukek First Nation (MFN)
- Innu Nation
- Nunatsiavut Government (NG)
- Mi'kmaq Alsumk Mowimsikik Kogoey Association (MAMKA) (An Aboriginal Aquatic Resource and Oceans Management Department (AAROM) comprised of MFN and QFN representatives).

1.4 Location of the fishery

3Ps is an area adjacent to the south coast of Newfoundland and extends from Cape St. Mary's to just west of Burgeo, extending over St. Pierre Bank and most of Green Bank (Figure 1). It is sub-divided into unit areas 3Psa to 3Psh (Figure 2) and includes the majority of the zone around the French Islands of St. Pierre et Miquelon.

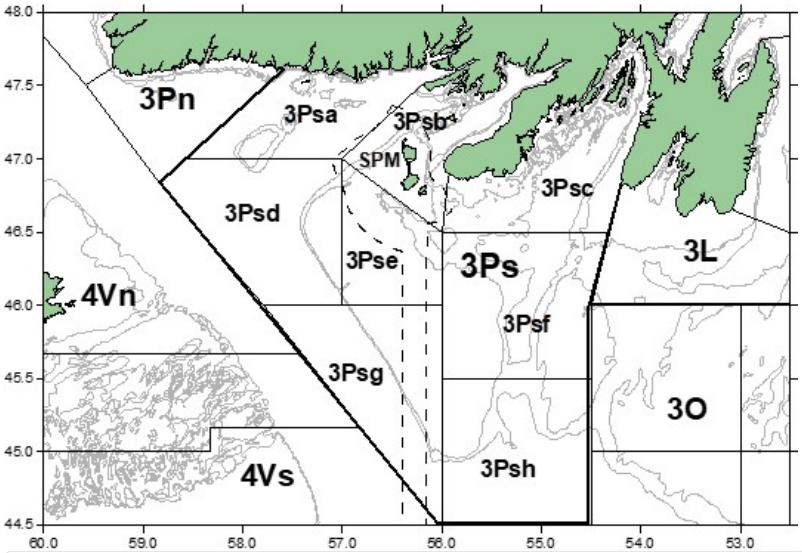
Figure 1: NAFO Sub-Division 3Ps management area and economic zone around the French islands of St. Pierre et Miquelon (SPM, dashed line) (DFO 2022/022).





▸ Figure 1 - Text version

Figure 2: Map of NAFO Sub-Division 3Ps that is subdivided into unit areas. Dashed lines indicate the economic zone around the French islands of St. Pierre et Miquelon (SPM).



▸ Figure 2 - Text version

1.5 Fishery characteristics

Groundfish in 3Ps is harvested using both fixed and mobile gear to target a number of species. Some stocks in this area are currently under moratorium. From 2018 to 2022, fixed gear accounted for approximately 56% of the landings (Table 1). The fixed gear fishery uses primarily gillnets, as well as handlines, longlines, and to a lesser extent cod pots. The mobile gear fishery uses primarily bottom otter trawl. The specific authorized gear used varies by fishery and is specified in licence conditions issued to fish harvesters. Fleet sectors are categorized based on vessel size and gear type, as described in Section 1.2. The inshore fleet sector predominately uses fixed gear, while the offshore fleet sector predominately uses mobile gear.

Directed 3Ps groundfish fisheries and species currently under moratorium

Directed fishery

- Atlantic Cod: 3Ps
- Atlantic Halibut[a]: 3NOPs, 4VWX, 5Zc
- Greenland Halibut (Turbot): 3Ps

- Lumpfish: 3Ps
- Monkfish: 3Ps
- Redfish: Unit 2 (3Ps, 4Vs, a portion of 4W, and 3Pn + 4Vn (June 1-December 31))
- Skate[b]: 3Ps
- White Hake[c]: 3Ps

Moratorium

- American Plaice: 3Ps
- Grenadier: 3Ps
- Haddock: 3Ps
- Pollock: 3Ps

Notes:

[a]Atlantic halibut in Divisions 3NOPs4VWX5Zc is considered to constitute a single biological stock.

[b]Skate in Divisions 3NOPs is considered to constitute a single biological stock.

[c]White hake in Divisions 3NOPs is considered to constitute a single biological stock.

Table 1: 3Ps Landings by gear type (all fleet sectors combined)

Gear type	2018	2019	2020	2021	2022
Fixed gear	5,415	3,764	2,136	1,138	1,053
Mobile gear	2,505	3,240	2,660	1,073	1,054

Guided by the IFMP as well as rebuilding plans where established, annual management measures for the 3Ps groundfish fisheries are identified in Conservation Harvesting Plans (CHPs). CHPs describe fleet and fishery-specific information such as permitted gear types, season dates, and other management measures. There are several management measures that apply across fisheries, including:

- specified season dates
- area closures
- small fish protocols
- incidental catch protocols
- dockside monitoring

As well, there are requirements to use gear tags, vessel monitoring systems (VMS), logbooks, hailing, and at-sea observers in some fisheries (refer to Section 7 for further details on management measures). Additional stock-specific measures from CHPs are outlined in Appendix A, Table 5.

1.6 Governance

Most groundfish stocks in 3Ps are managed exclusively by Canada with TACs and other management measures established by DFO. Groundfish species in 3Ps are found both inside the EEZ and the French maritime zone, which is entirely inside Canada's EEZ. Since 1994, annual consultations have been held between Canada and France in respect of the French Islands of St. Pierre et Miquelon, to establish the TAC and other management measures for 4 jointly managed groundfish stocks in 3Ps. These include:

- Cod
- Unit 2 Redfish
- American plaice
- Witch flounder

The current management cycle for groundfish in 3Ps runs from April 1 to March 31. Canadian groundfish fisheries are governed by the *Fisheries Act*, regulations made pursuant to the Act, and DFO policies. The Fisheries Licencing Policy of Newfoundland and Labrador Region provides details on the various licensing policies that govern the commercial and communal commercial fishing industry in the NL Region (please note that DFO should be consulted for all purposes of interpreting this document). Other key regulations and policies that apply include, but are not limited to:

- *Aboriginal Communal Fishing Licences Regulations*
- *Atlantic Fishery Regulations 1985*
- *Fishery (General) Regulations*
- Commercial Fisheries Licencing Policy for Eastern Canada, 1996

DFO has established a Groundfish Advisory Committee as a forum to discuss issues with stakeholders and Indigenous groups related to the management of the groundfish fishery in 3Ps. The committee meets annually and its purpose is to seek input and advice from members to inform the sustainable use of groundfish resources in 3Ps. The terms of reference for the committee are found in Appendix B.

1.7 Approval process

This IFMP document is approved by the DFO Regional Director General of the NL Region. Opening and closing dates for specific areas and gear types and other issues that arise through the fishery are addressed by DFO staff in consultation with industry. Any significant changes to management measures are generally tabled by DFO officials at the Groundfish Advisory Committee meeting. Stakeholders seeking new management measures should table their requests through their representative as part of the Groundfish Advisory Committee process.

The intent is to manage the fishery based on the measures outlined in this

IFMP unless there are conservation issues. When a stock has a rebuilding plan in place, then it will take precedence over the IFMP or other management measures. When a stock has reached its rebuilding target, it will no longer be managed under a rebuilding plan but will then be subject to an IFMP or other fishery management process.

2.0 Stock assessment, science and traditional knowledge

To inform sound management decisions for groundfish resources in 3Ps, DFO Science provides peer-reviewed information (under the Canadian Science Advisory Process, with co-ordination from France, in respect of Saint Pierre and Miquelon) and advice on the status of the resource and anticipated results of management options. Two stocks span from 3Ps into the Grand Banks and international waters, and are assessed biennially by the Scientific Council of NAFO:

- Thorny skate
- White hake

DFO Science conducts routine data collection, analysis, and specialized research on the general biology of groundfish in support of stock assessments which feeds into the Canadian Science Advisory Secretariat (CSAS) and other processes described above, including:

- collection and archiving of catch data from fish harvester logs, at-sea observers, electronic logs, and landings from fish plant purchase slips;
- collection of biological and demographic data from dockside, at-sea and research vessel surveys;
- information on migration and movement from tagging experiments and,
- archiving of biological data collected by DFO and contract sources.

The annual research vessel survey includes the collection of biological and physical oceanographic data (e.g. water temperature, salinity), and provides critical fishery-independent data for undertaking stock assessments. DFO Science has carried out stratified random research vessel surveys in 3Ps since 1972, but surveys from then until 1982 had relatively poor coverage. For most stocks, survey indices are used from 1983 onward. The surveyed area was increased in 1994 and 1997 with the addition of strata inshore. The survey was not completed in 2006, 2020 and 2023. Note that due to different bottom trawls and/or vessels being deployed during the spring survey, survey data are not directly comparable across the whole timeseries for some species, which is considered within each stock’s assessment.

During each set, fish collected by the survey trawl are weighed and counted

and these data are used to develop species specific indices of stock size and distribution. For some species (e.g. Atlantic cod, American plaice, Atlantic halibut, White hake), otoliths are collected for age estimation. Data from otoliths form the basis of age based-population models used in the assessment of some of these stocks. Data and biological samples are also collected to assess:

- stock length composition
- sex ratio
- maturity stages
- fish community composition
- trends in fish diet over time

2.1 Biological characteristics

As a group, groundfish live and feed in association with the ocean floor, but individual species exhibit a wide range of biological characteristics. Generally, groundfish have relatively long life spans with many species living for 2 to 3 decades, while Redfish are known to live up to 75 years. Reproductive patterns differ between species. Some species such as Atlantic cod release pelagic eggs and have planktonic larvae that float independently in the water column, while female Monkfish deposit eggs in mucous sheets that float near the ocean's surface, and Lumpfish and Wolffish females deposit egg masses directly on rocky bottoms that are defended by respective adult males. Redfish have an entirely different reproductive pattern as they are live bearers, extruding larvae that may be transported large distances by ocean currents before settling near the ocean floor.

Juvenile groundfish may settle to bottom habitats and remain relatively stationary throughout their lives or migrate large distances annually for feeding, spawning or overwintering. The diet of juvenile groundfish typically consists of invertebrates such as copepods and euphausiids. As they grow, some groundfish species will consume small fish but continue to feed on invertebrates either in the water column (e.g., Redfish) or near/on the ocean floor (e.g. American plaice), while other species switch to a mostly fish-based diet.

Information on the biological characteristics of some of the common groundfish species in subdivision 3Ps are included here:

Atlantic cod

Atlantic cod (*Gadus morhua*) is a gadoid fish that inhabits water on both sides of the North Atlantic. Stock structure and migration patterns of Atlantic cod in 3Ps are complex. Cod mix with adjacent stocks at the margins of the stock boundary, some offshore components migrate seasonally to inshore areas while some remain offshore throughout the year. Additionally, there

are inshore components of this stock. Spawning is spatially widespread in 3Ps, occurring close to shore as well as on Burgeo Bank, St. Pierre Bank, and in the Halibut Channel. Timing of spawning is variable and extremely protracted, with spawning cod present from March until August in Placentia Bay. Detailed examination of fish collected from Halibut Channel (in the southern portion of 3Ps) in March and April of 2015 and 2016 suggested that spawning in this area began in April. There was a shift to earlier maturation in the mid-1980s, and there has been a general decrease in size-at-age since the early 1980s. The reasons for this change toward earlier age at maturity are not fully understood but may have a genetic component that is partly a response to high levels of mortality including fishing. Condition (or condition factor), which is a measure of fish weight relative to length and is considered a proxy for fish health and energy reserves, varies seasonally and tends to decline during winter and early spring. Poor condition has been identified for this stock as a contributing factor to increased natural mortality; natural mortality increased from the early 2000s and has varied without trend at a relatively high level since 2008.

Atlantic halibut

The Atlantic halibut (*Hippoglossus hippoglossus*) is the largest of the flatfishes and ranges widely over Canada's East Coast. The management unit definition (3NOPs4VWX5Zc) is based largely on tagging results which indicate that Atlantic halibut move extensively throughout the Canadian North Atlantic with smaller fish moving further than larger fish. Atlantic halibut are demersal, living on or near the bottom, with a temperature preference of between 3 and 5°C. They have a compressed, oval-shaped body and usually have both eyes on the right side of their bodies with the left side being totally blind. They are greenish brown to almost black on their eyed side. Juveniles might be slightly spotted or flecked and have white undersides, which become mottled with grey or reddish spots as they mature. Their mouths are very large and have numerous sharp curved teeth. Atlantic halibut may grow to a length of more than two metres though they typically weigh less than 100 kg. Atlantic halibut can be distinguished from most other species of flatfish by its concave tail.

The maximum size for females (200 cm) is much greater than males (140 cm). Age at maturity is uncertain, but length at maturity has been estimated to be about 115 cm for females and about 75 cm for males. Spawning location and times are unknown. As the size of halibut increases, prey selection shifts from invertebrates to fish. Small halibut (<30 cm) feed on hermit crabs, prawns, small crabs, and mysids, while those larger than 70 cm consume flatfish, redfish, and pollock.

American plaice

American plaice (*Hippoglossoides platessoides*) is a benthic marine flatfish. The eyed side is typically red to grayish brown and uniform in colour, whereas the blind side is white. The head is generally small but with a relatively large mouth. American plaice are usually considered a cold-water species with reported catches in temperatures from -1.5 to 13°C, but they are most numerous at the lower end of this temperature range. Once settled, adults and juveniles frequently inhabit the same areas over depths ranging from 20 to 700 m with a preference for depths in the range of 100 to 300 m. American plaice are generally a slow growing and moderately long-lived species with a maximum age of about 30 years. The species exhibits sexual dimorphism in that the females grow faster and are larger than the males for any given age. Spawning in 3Ps is widespread. American plaice are highly opportunistic feeders throughout their life cycle, feeding on whatever prey items are available in appropriate sizes for ingestion and varying with fish size, locality and seasonally (e.g polychaetes, echinoderms, molluscs, crustaceans and fish.)

Witch flounder

Witch flounder (*Glyptocephalus cynoglossus*) is a long lived, right-eye flounder that is distributed in the western Atlantic from Labrador to North Carolina. This species was known to live to 22 years in 3Ps in the mid-1970s, but the maximum age observed declined to 14 years old by 1980s. Age data has been unavailable since 1994 in this area. Witch flounder in 3Ps are most commonly associated with shelf slope waters along the eastern edge of the Laurentian Channel and the southeastern slope of St. Pierre Bank, occupying depths primarily between 100-500 m, but to as deep as 900 m, and occurring predominantly in water temperatures ranging from 4-7°C. An inshore component of the stock occupies the deep-water areas (to >250 m) around Fortune Bay and Hermitage Bay. Spawning of Witch flounder occurs from January through May, with the highest intensity of spawning from January-March. This species forms dense aggregations in the spawning season, with offshore fisheries historically targeting these concentrations.

Haddock

Haddock (*Melanogrammus aeglefinus*) occur on both sides of the North Atlantic; on the North American coast, they range from the Strait of Belle Isle south to Cape Hatteras, being more abundant in the southern portion of their range. Haddock are primarily bottom feeders, feeding on benthic invertebrates including ophiuroids (brittle stars) and polychaete worms. Food varies with size, with fish, including Capelin and Sandlance, playing a greater role in the diet of larger individuals. Spawning occurs on St. Pierre Bank in spring. Males and females attain sexual maturity at ages 3-5 years; males usually at a slightly younger age than females. Haddock larvae are

pelagic, settling on the bottom at around 50 mm. Growth rates vary and are generally slower in northern stocks.

Common lumpfish

Common lumpfish (*Cyclopterus lumpus*), a benthopelagic marine fish, is widely distributed in the Northwest Atlantic (NWA) from Chesapeake Bay (USA), along the NL coasts and adjacent Arctic, to southwestern Greenland, and inhabits 3-11^{o} C waters from nearshore to 868 m depths. Tagging studies of adults demonstrated strong homing behaviour: returning annually in spring to the same inshore spawning grounds. Lumpfish larvae and small juveniles live in the top meter of the ocean; often attached to floating pieces of seaweed, marine buoys, or other human-sourced objects (e.g., macroplastics; garbage). Female Lumpfish grow larger (up to 61 cm long) than males (50 cm in length) and are known to reach 13 years old. Undergoing changes in diet with increasing body size, they are opportunistic feeders, eating a wide variety of pelagic and benthic prey, including zooplankton (as newly hatched larvae), fish eggs/larvae, ctenophores ("sea gooseberries") and jellyfish (as juveniles), then small fish, jellyfish, marine worms, and molluscs (as adults).

Monkfish

Monkfish (*Lophius americanus*), a bottom-dwelling marine fish that is widely distributed in the NWA from Florida (USA) to Cape Chidley (Labrador), and typically occupies 4-10^{o} C waters in 70-700 m depths. Female Monkfish deposit eggs in large mucous veils that float in local currents near the ocean's surface. After hatching, larvae will float to the surface, spend several months in a pelagic phase, and then settle to the ocean floor as post-larvae. Female Monkfish grow larger (more than 138 cm long) and live longer (at least 13 years) than males, which can reach 91 cm in length and about 7 years old. Undergoing changes in diet with increasing body size, they are opportunistic feeders, eating zooplankton (as newly hatched larvae), shrimp and small fish (as juveniles), then mainly larger fish, squid, molluscs, crabs, and seabirds (as adults).

Redfish

Redfish in 3Ps is part of Unit 2, and includes 2 redfish species, the Deepwater Redfish (*Sebastes mentella*) and Acadian Redfish (*Sebastes fasciatus*), each considered a single stock. Redfish inhabit cold waters along the slopes of banks and deep channels. They are often semipelagic (i.e., moving between the water column and near the sea floor) and patchily distributed. They inhabit cool waters (3–8 °C) along the continental slope margins and deeper channels at depths of 100–1000 m. *S. mentella* is generally distributed deeper compared to *S. fasciatus.* Redfish conduct daily vertical migrations, leaving

the sea floor at night to follow their prey migrating higher in the water column. Small Redfish mainly feed on zooplankton, and when Redfish reach the size of 20 cm, they begin feeding on various species of crustaceans, including several species of shrimp. Redfish larger than 25 cm diet has greater diversity and includes fish.

Redfish have a short body with a large head and wide, gaping mouth. They have a row of short dorsal spines followed by a flat dorsal fin, and a small tail with a shallow indent. Given their similarities, Redfish species are difficult to identify visually; however, *S. fasciatus* has fewer anal fin rays (mostly 6 to 8) compared to *S. marinus* (mostly 7 to 10), and *S. marinus* is larger and has a smaller beak on the chin.

Redfish are long-lived, slow-growing, and late-maturing. Maximum age is between 30 and 50 years for *S. fasciatus* and between 60 and 75 years for *S. mentella* , at this point Redfish could reach 30 to 40 cm. Redfish tend to produce large year classes very occasionally ("episodic recruitment") but these can give rise to fisheries , and significant year classes have only been observed irregularly at intervals between 5 to 30 years. Redfish are ovoviviparous, meaning that they conduct internal fertilization. Their reproductive period lasts for about half of the year since females carry sperm or embryos for the entire winter. Larvae are mostly released in the spring in deeper waters. Larvae and smaller individuals are pelagic (i.e., living near the surface of the water), but at lengths between 15 and 20 cm they gradually move into deeper waters.

Thorny skate

Thorny skate (*Amblyraja radiata*) is found in the NWA from South Carolina (USA), along the NL coasts and adjacent Arctic, to Greenland, and inhabits -1^{o} C to 14o C waters from nearshore to 1,540 m depths. A breeding male deposits a sperm-packet through his "clasper" in her cloaca, which the female will use to fertilize her internally developing eggs before each is encased in a rectangular hardening shell ("Mermaid's purse) and extruded onto the ocean floor. Thorny skates can grow to 110 cm long and to at least 28 years old. Undergoing changes in diet with increasing body size, they are opportunistic feeders that can detect weak electric fields generated by prey (even buried in sandy/muddy bottoms). This species eats a wide variety of benthic prey, including euphausiids and amphipods (as newly hatched "pups"), shrimp, marine worms and small fish (as juveniles), then mainly larger fish, squid, crabs, marine worms, and molluscs (as adults). This species is also known as a scavenger that feeds on dead animals.

White hake

White hake (*Urophycis tenuis*) is a bottom-dwelling gadoid fish reported in

deep waters off of Florida (USA), to as far north as Greenland and Iceland, and can tolerate near 0o C to 21^{o} C waters from nearshore to 1,400 m depths. They spawn in spring, and their eggs and larvae remain in the upper water layer, where they are dispersed by ocean currents for 2-3 months before settling to the ocean floor in autumn (often associated with Eelgrass beds/corals to hide from predators). White hake are relatively “fast-growing”, can reach 135 cm in length, and at least 23 years old. Undergoing changes in diet with increasing body size, they are opportunistic feeders, eating a wide variety of pelagic and benthic prey, including zooplankton (as newly hatched larvae), euphausiids, amphipods, marine worms and small fish (as juveniles), then mainly larger fish, shrimp, squid, and marine worms (as adults).

2.2 Ecosystem interactions

Oceanographic conditions in 3Ps are influenced by the Labrador Current from the east, the warmer and saltier Gulf Stream waters from the south, as well as the complex bottom topography in the region and local atmospheric climate conditions. Surface and near-bottom temperatures, while showing significant variability from one year to the next, have experienced a general warming trend in some areas since 1990. Satellite remote sensing data indicated that the timing of onset and duration of the spring phytoplankton bloom in 3Ps were normal in 2020. Surface production was also normal during 2020, following three consecutive years of above normal production. No zooplankton data were available for 2019 and 2020.

Southern Newfoundland (3Ps) is one of the 4 ecosystem production units commonly used to describe the functioning of the NL bioregion (NAFO 2014; Pepin et al., 2014; NAFO, 2015; Koen-Alonso et al., 2019), the other being the Labrador Shelf (2GH), the Newfoundland Shelf (2J3K), and the Grand Bank (3LNO). Trends in the fish community in these ecosystem units are typically summarized from DFO RV surveys data in terms of fish functional groups defined by general fish size and feeding habits: small, medium, and large benthivores, piscivores, plank-piscivores, planktivores, and shellfish (only commercial species, recorded since 1995)(NAFO, 2010; DFO, 2012; Dempsey et al., 2017; Koen-Alonso and Cuff, 2018; NAFO, 2021).

Commercial groundfish species encompass several of these functional groups. For example, Atlantic cod, Greenland halibut, and Atlantic halibut are included in the piscivores functional group; American plaice, Haddock, and Thorny skate are large benthivores; Yellowtail flounder and Witch flounder are among the medium benthivores; and Redfishes are considered plank-piscivores. This broad distribution among functional groups reflects the ecological heterogeneity of the suite of species commonly referred to as commercial groundfishes. However, some commonalities among these

species include adult stages that can be deemed as medium to large in size (maximum sizes >50cm), and medium to high trophic positions in the food web (trophic levels 3-5).

Groundfishes experience ontogenetic changes that typically involved pelagic juvenile stages with a higher incidence of zooplankton in the diet, changing to more demersal habits as they grow when their diet becomes more reliant on forage fishes (e.g. capelin, sandlance, herring) and/or larger invertebrates (e.g. shrimp, crabs). While a diet signature can be coarsely described for each groundfish species for general characterizations (i.e. a "typical/average" diet composition), actual diets vary in space and time. Crab, sand lance, and flatfishes have been dominant prey species for cod in 3Ps in recent years, but in the mid-1990s Redfish was important to their diet. Since the mid-2010s, snow crab have shown clear reductions in their contributions to the diets of groundfish species like Atlantic cod and Thorny skate (NAFO, 2021).

Food sources both in terms of quality (e.g. energy rich prey like sand lance versus energy poor prey like snow crab), and quantity (availability of prey, which can influence how much and/or how often a fish eats) can impact individual condition, fitness and/or survival, and consequently, productivity at the stock level.

The fish functional groups for which commercial groundfish species are dominant components are also important predators in these ecosystem units. The food consumption by these functional groups coarsely represents around 60-70% of the total food consumption estimated for the entire fish community and can exert important predation pressure (NAFO, 2021). Note: this estimation includes all finfishes and commercial shellfish but does not include other invertebrates and underestimates consumption by forage fishes; it is considered a first approximation to total consumption.

In terms of trends, the ecosystem units in the NL bioregion were historically dominated by groundfishes, most typically Atlantic cod, which were also the main target of their fisheries. Fishing pressure on these ecosystems was very high during the 1960s and early 1970s, with overall fishing catches above the capacity that these ecosystems can sustain (Koen-Alonso et al., 2013; Koen-Alonso et al., 2022). Even though catches were lower in the 1980s, many stocks had not recovered from the previous decade of exploitation, and some continued to be overfished at a time when environmental conditions were becoming less favourable for demersal fish production (Koen-Alonso et al., 2010; Koen-Alonso et al., 2013; Dempsey et al., 2017; Pedersen et al., 2017; Koen-Alonso and Cuff, 2018; Koen-Alonso et al., 2022).

In the late 1980s and early 1990s, the entire bioregion underwent an abrupt

shift in community structure. Changes were observed earlier and were more dramatic in the north than in the south, but were evident all around (Koen-Alonso et al., 2010; Dempsey et al., 2017; Pedersen et al., 2017; Koen-Alonso and Cuff, 2018). These changes involved major declines in groundfish and pelagic fishes and involved both commercial and non-commercial species alike. Capelin, a key forage species, especially in the north, collapsed in 1991, and has yet to rebuild to its pre-1991 levels (Buren et al., 2014; Buren et al., 2019; Lewis et al., 2019). During this period, the cold environmental conditions together with the reduced predation pressure from groundfishes, allowed the build-up of shellfish species, like northern shrimp in more northern areas and snow crab in more southern areas, including 3Ps. Even though changing environmental conditions were important drivers of this abrupt ecosystem change, the overfishing experienced by many important fish stocks is believed to have weakened the ability of these ecosystems to tolerate environmental perturbations (Buren et al., 2014; Koen-Alonso et al., 2022).

Data on the biomass or abundance of the fish community in 3Ps was last available for 2021. The overall biomass of the fish community declined in the late-1980s and early-1990s, and involved changes in the structure of the fish community. This was a period of wide-spread and large scale changes across the entire bioregion and is widely considered a regime shift, and has never returned to a similar biomass or structure (NAFO, 2015; Koen-Alonso and Cuff, 2018; NAFO, 2021). In the last decade, the fish community showed a rebuilding in biomass until 2014 when declines were observed again, before the most recent improvements in 2019 – 2021. The overall abundance increased due mainly to an increase in small planktivorous (plankton-eating) fishes (e.g., Sandlance Ammodytes sp.) during that period. With these fluctuations in biomass, there has been changes in the community structure with increased dominance of warm-water species such as Silver Hake (*Merluccius bilinearis*) amongst the piscivorous fish. Changes in species composition indicate that the structure of the 3Ps ecosystem may be changing and at least some aspects of this ecosystem likely remains in a reduced productivity state (Koen-Alonso and Cuff, 2018; NAFO, 2021).

Only a very small proportion of the Grey Seal (*Halichoerus grypus*) population in Atlantic Canada utilizes 3Ps for any part of the year, and as such they likely have minimal impacts on groundfish abundance. Preliminary data from satellite tracking studies indicate that of those seals that do summer in 3Ps, the majority spend a few months in the area while staying most of the year on the Scotian Shelf or in the Gulf of St. Lawrence. The available data indicate that Atlantic cod are rarely seen in the diets of Grey or Harbour Seals (*Phoca vitulina*) in 3Ps.

Although fishing has undoubtedly been an important driver of abundance of

commercial groundfish species in the NL bioregion, bottom-up processes and species interactions have been major driving forces in these ecosystems over the last three decades.

2.3 Indigenous traditional knowledge

Indigenous traditional knowledge and traditional ecological knowledge from Indigenous groups are considered in science processes and management decisions. Indigenous organizations in NL have participated formally in the following DFO processes related to 3Ps groundfish:

- 3Ps Groundfish Advisory Committee to discuss and provide input on management measures for groundfish
- 3Ps Cod Rebuilding Plan Working Group
- Science advisory processes for groundfish stock assessments
- Canada France Advisory Committee

2.4 Stock assessments

For groundfish stocks in 3Ps that are managed by Canada and those that are co-managed with France, CSAS oversees the provision of scientific advice required by DFO. Scientific assessments and advice with respect to groundfish resources are regularly conducted through regional CSAS peer-review meetings to address a number of scientific questions related to the management of Canadian oceans and the conservation of marine and freshwater resources. Individuals with knowledge and technical expertise may be invited to these meetings to contribute to the peer review and development of advice. During the science advisory process, the health of marine ecosystems, the conservation of species at risk, and the status and trends of different stocks of fish, invertebrates and marine mammals in Canada are considered.

Thorny Skate in 3Ps and 3LNO are considered to constitute a single stock, and White Hake in 3Ps and 3NO are also considered to constitute a single stock. The NAFO Scientific Council conducts assessments for Thorny skate in 3LNOPs and White hake in 3NOPs, and CSAS has also provided advice for the 3Ps portion of both stocks, which are managed by Canada.

Following the provision of new science advice on groundfish stocks, advisory committee meetings are held with stakeholders and Indigenous groups to discuss the scientific results and obtain input on appropriate fisheries management measures. For further information on stock assessments refer to Appendix C, Table 6.

2.5 Precautionary approach

Canada has national and international commitments to establish decision-

making frameworks for groundfish stocks that are compliant with the Precautionary Approach (PA), to ensure sustainable fisheries management. The PA can be defined as being cautious when scientific knowledge is uncertain, and to not postpone or fail to take action to avoid serious harm to fish stocks or their ecosystems by using the absence of adequate scientific information as a reason for such inaction. This approach is widely accepted as an essential part of sustainable fisheries management. Applying the PA to fisheries management decisions entails establishing a harvest strategy that:

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

For some groundfish stocks, reference points exist and in other cases work continues on identifying reference points. For more information, visit the Sustainable Fisheries Framework website.

In 2019, the *Fisheries Act* was amended to include the Fish Stocks Provisions (FSP) which introduced new legally binding obligations on the department to manage prescribed major fish stocks at or above levels necessary to promote sustainability, and to develop and implement rebuilding plans for prescribed major stocks that have declined to or below their LRP to grow the stock above that point. On April 4, 2022, the FSP came into effect for the first 30 stocks nationally (Batch 1), including 3Ps cod. As this stock is below its LRP, a rebuilding plan was established and published online in September 2024. This rebuilding plan will be reviewed every 5 years or earlier if there is a major change in the understanding of the stock and/or a sustained decline (3 or more years). For further information on PA framework reference points for 3Ps groundfish stocks please refer to Appendix D, Table 7.

2.6 Research

A goal of DFO Science 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. In addition to ongoing research vessel surveys to inform stock assessments for both Canadian managed stocks and those co-managed with France, DFO Science carries out scientific research in 3Ps related to fish ecology and nearshore fisheries.

Several avenues of research are being carried out in 3Ps. This area is known to be a mixing area for several stocks of Atlantic cod and genetic analysis to

inform stock structure of 3Ps cod is being performed based on scales of cod collected during the spring multispecies surveys. The goal is to investigate fine-scale patterns of genetic structure of 3Ps cod to fill a critical gap in population genomic studies of this species.

The inshore acoustic telemetry array maintained by DFO Science in 3Ps was significantly expanded in 2021 and an offshore gate was added in 2022. This infrastructure allows detection of acoustically tagged fish throughout the year. This program aims to inform on seasonal migration, movement across stock boundaries, and year over year survival. Fin clips are also collected from all acoustically tagged fish to facilitate ongoing research on the relationship between genetic structure and migration phenotype, and genetic connectivity with neighbouring stocks.

Other research in 3Ps is focused on stock discrimination between Silver Hake which occur in 3Ps and Silver Hake stocks in the Gulf of St. Lawrence and on the Scotian shelf, through the collection of fin clips and genetic analysis. Further studies on Silver Hake diet are also ongoing in this area. There is ongoing research on Black Dogfish in 3Ps in relation to the Laurentian channel Marine Protected Area (MPA) which has been identified as a nursery area for this species. Research is also ongoing on Smooth skate, Northern and Spotted Wolffish and Porbeagle Shark in relation to the Laurentian channel MPA. Work is also currently being carried out to develop an assessment model for the Thorny skate stock in 3LNOPs.

The Sentinel Survey of Atlantic cod has been conducted in 3Ps since 1995. Sentinel Survey data are collected by trained fish harvesters at various inshore sites along the south coast of Newfoundland. The main goals of the Sentinel Survey Program include:

- to develop indices of relative abundance (i.e. catch rates) for resource assessments;
- to incorporate knowledge of inshore fish harvesters in the resource assessment process;
- to evaluate inter-annual variability in resource distribution over inshore areas; and
- to collect information on key biological parameters used in assessments (i.e. fish length, sex, maturity stage, and otoliths to determine fish age), as well as biological samples used for genetic, physiological, and toxicological analyses, along with stomach contents for food and feeding studies.

The NL Ecosystem Research Program is engaged in a range of research activities aimed at understanding the functioning and dynamics of the marine community in the 3Ps ecosystem, including how it responds to environmental pressures. This work involves characterizing the status and

trends of the fish community, and targeted research on the changes in composition of this fish community as ocean temperatures increase and the consequences of these changes for ecosystem functioning. As part of this research program, there are targeted studies of the diet of key fish species in this ecosystem. These types of studies enhance our understanding of the functioning of the food web and help characterize predation mortality for some commercial species in this ecosystem.

Ongoing research is also looking at the productivity of the 3Ps ecosystem from a range of perspectives. Ecosystem models are being constructed to develop indicators that can inform on the risk of ecosystem overfishing by relating ecosystem-level productivity with overall fisheries removals. Finally, comparative analyses of ecosystem structure and productivity between 3Ps and neighboring ecosystems are being conducted to better understand how the ecosystem changed historically and the role of large-scale factors (e.g. ocean climate) in driving changes across ecosystems, in order to better understand future changes, including those driven by climate change.

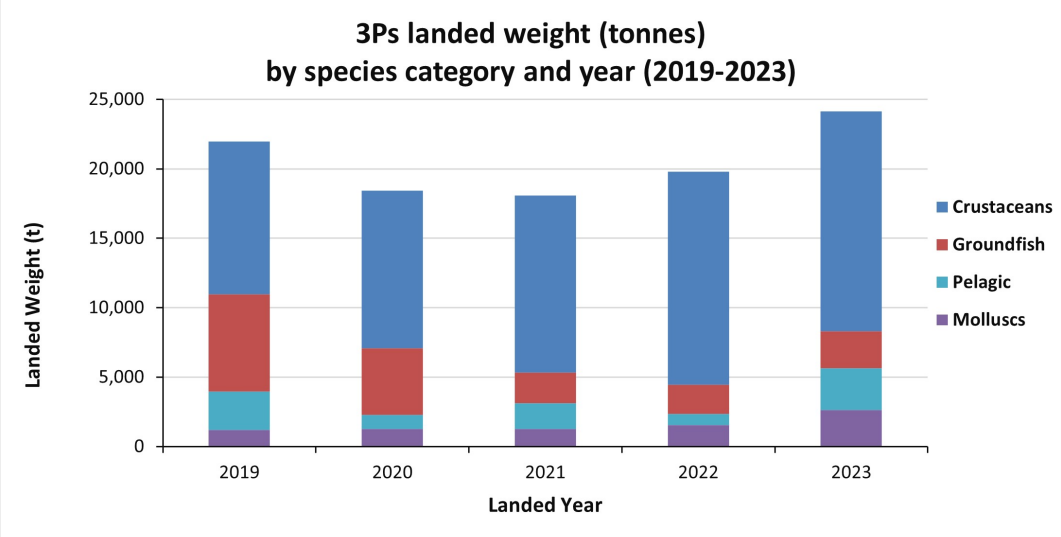
3.0 Economic, social and cultural importance of the fishery

3.1 Socio-economic profile

Landed weight

Over the 2019-2023 period, total 3Ps landed weight for all species categories, that is, groundfish, crustaceans, pelagics, molluscs, and miscellaneous, peaked in 2023 at approximately 24,000 tonnes. From 2019 to 2023, groundfish landed weight declined from 7,000 tonnes to approximately 2,700 tonnes. For all years in the period, crustaceans accounted for the largest proportion of total landed weight (Figure 3).

Figure 3: 3Ps Landed weight (tonnes) by species category (2019-2023). All data is preliminary.



► Figure 3 - Text version

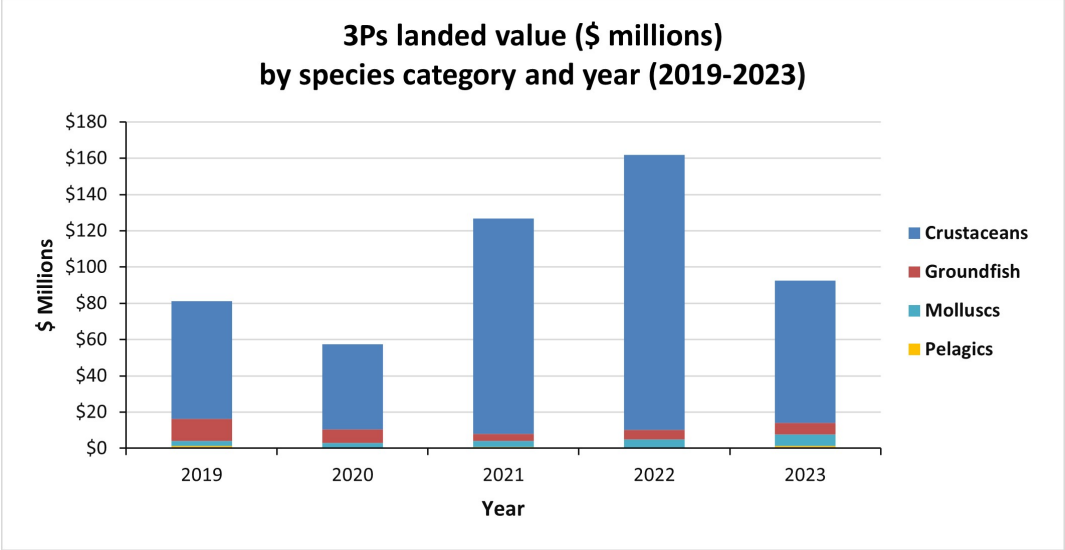
In the groundfish category, cod accounted for the largest share by landed weight of total groundfish landings over the 2019-2023 period. For those five years, cod comprised 41% of the total 3Ps groundfish landed weight, followed by redfish (30%), skate (11%), Atlantic halibut (6%), and other groundfish (12%).

In 2023, redfish comprised 54% of total 3Ps groundfish landed weight, followed by cod (28%), Atlantic halibut (6%), white hake (4%), and other groundfish (8%).

Landed value

The average annual landed value of 3Ps groundfish over the 2019-2023 period was approximately $6.9 million (Figure 4). In 2023, groundfish accounted for 7% of 3Ps total landed value for all species ($92.6 million), whereas crustaceans accounted for 85%.

Figure 4: 3Ps landed value ($ millions), by species category (2019-2023). All data is preliminary.

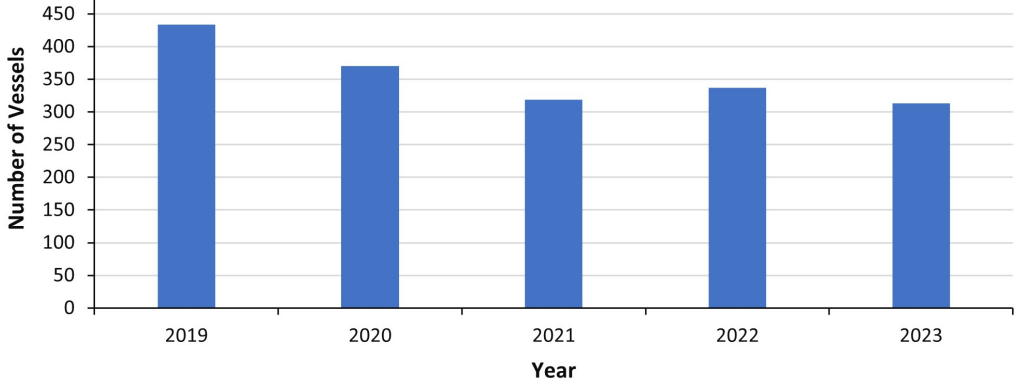


► Figure 4 - Text version

Vessels

From 2019 to 2023, the number of active vessels has declined, with the exception of a slight increase from 2021 to 2022 (see Figure 5). In 2023, there were 313 active vessels.

Figure 5: Number of active vessels in 3Ps groundfish fishery (2019-2023). All data is preliminary.



▸ Figure 5 - Text version

3.2 Dependence on groundfish

In the following analysis, dependence is based on active fishing enterprises homeported in 3Ps with groundfish landings. Dependence is defined as the percentage contribution of groundfish to the total landed value of all species harvested by these enterprises. A fishing enterprise is the fishing unit comprised of all licenses, vessels, and gear held by the licence holder.

In 2023, there were 270 active enterprises operating vessels <40’ with groundfish landings. On average, their groundfish landed value was approximately $9,600 per enterprise and accounted for 11% of average total fishing revenue (all species) for these enterprises. Snow crab comprised about 45% of their average total fishing revenue, followed by lobster (37%), sea cucumber (6%), Atlantic halibut (6%), cod (4%), and other species (2%).

There were also 19 active enterprises operating vessels 40-65’ with groundfish landings. On average, their groundfish landed value was approximately $9,600 per enterprise and accounted for 2% of average total fishing revenue (all species). Snow crab comprised about 52% of their average total fishing revenue, followed by sea cucumber (20%), whelks (14%), lobster (8%), herring (3%), and other species (3%).

4.0 Management issues

4.1 Bycatch and incidental catch

In general, fishing methods, techniques, and gear types are not perfect in the selection of one species while fishing. In many fisheries it is not possible to direct for one species without incidentally capturing others, and/or to avoid the capture of juveniles or other undesired individuals of the target species. Bycatch is catch retained onboard of any species other than a directed species, and incidental catch is considered catch that is immediately returned to the water. Bycatch of groundfish in 3Ps is required to be landed and recorded through DMP, except where release is authorized. Recognizing

that bycatch and incidental catch is often unavoidable and with growing concerns about long-term sustainability of fisheries and ocean health, Canada signed on to the United Nations *Code of Conduct for Responsible Fisheries* in 1995, which called on signatories to adopt measures to minimize bycatch, and 'to the extent practicable, the development and use of selective, environmentally safe and cost effective fishing gear and techniques'.

Fishing gear and harvesting practices have evolved to improve the selectivity of fishing, and efforts have been made to maximize the potential for survival of catch that is returned to the water. Nevertheless, some amount of incidental fishing mortality remains. For this reason, bycatch in Canadian waters needs to be systematically addressed in all fisheries management plans. At the same time, increasing demand from markets for evidence that seafood comes from sustainable fisheries is bringing more attention to the management of bycatch in major fisheries.

Under the Sustainable Fisheries Framework, DFO has created the Policy for Managing Bycatch. This policy is national and applies to commercial, recreational, and Indigenous fisheries managed or licensed by DFO under the *Fisheries Act*. This policy has 2 objectives. First, to ensure that Canadian fisheries are managed in a manner that supports the sustainable harvesting of aquatic species and that minimizes the risk of fisheries causing serious or irreversible harm to bycatch species. Second, to account for total catch, including retained bycatch and non-retained incidental catch. This policy will be implemented over time through Integrated Management Plans.

This policy does not apply to any catch that harvesters are licensed to direct for and that is retained. This includes any species that harvesters are licensed to direct for on a given trip regardless of whether or not they did so. This policy also does not apply to any catch that licence holders are authorized to direct for in catch-and-release fisheries. Also not covered by this policy is bycatch of corals, sponges, marine plants and other benthic organisms. These are considered to be better protected under habitat-related policies, which, in Canada, is the Policy for Managing the Impact of Fishing on Sensitive Benthic Areas. The management of the retained, targeted catch is guided by A Fishery Decision-Making Framework Incorporating the Precautionary Approach.

For each fishery, CHPs set out measures to reduce the bycatch and incidental catch of non-target species, including those listed under the *Species at Risk Act*. In many of the 3Ps groundfish fisheries, there is a bycatch daily limit or trip limit, which if exceeded, may result in a temporary closure of the fishery. In addition, there are ongoing efforts to improve selectivity of fishing gear, to reduce the environmental impact of gear, and to maximize

post-release rates of survival for released individuals. In addition to bycatch and incidental catch limits, there is a small fish protocol for some groundfish species, refer to Section 7.10 for more information.

Bycatch is monitored by DFO through DMP (by independent third-party), daily hails, logbooks, and at-sea observers (Section 7). Target levels of observer coverage are outlined in fleet-specific CHPs and currently have targeted rates of:

- Inshore fleet, 5-30%,
- Midshore fleet, 10-20%[2],
- Offshore fleet, 10%2.

Note: [2] Unless otherwise specified in the CHP.

4.2 Marine mammal interactions

Preventive, mitigation and response measures have been put in place to reduce marine mammal incidents. NL region has a contract with a marine mammal response group to respond to strandings, entanglements, and entrapments. As of 2018, it is mandatory for all harvesters to report marine mammal incidents. Mandatory reporting of lost gear, sequential numbering of buoys and measures reducing the amount rope on the water surface, were also implemented in 2018. Gear marking for fixed gear was implemented in 2020. In February 2020, new gear modification measures to reduce harm to whales from entanglement were announced.

Whalesafe gear is intended to reduce the risk of entanglement to large whales, while supporting sustainable fisheries. Whalesafe gear includes “on-demand” gear systems (sometimes called ropeless gear, pop-up gear or rope/buoy on demand), and low breaking-strength (LBS) devices. On-demand gear trials began in 2018 in the southern Gulf of St. Lawrence and since then, trials for all types of whalesafe gear have expanded to lobster and snow crab fisheries in Atlantic Canada and Quebec. DFO is preparing a 5-year Whalesafe Gear Strategy that will be developed in collaboration with the fishing industry, Indigenous groups, and other experts.

The United States (US) is implementing the import provisions of the *Marine Mammal Protection Act* following court ruling. The import rule requires countries exporting fish and fish products to the US to demonstrate that they have regulatory measures in place that are comparable in effectiveness to those of the US for prohibiting intentional marine mammal mortality and reducing incidental marine mammal mortality and serious injury in commercial fisheries. Fisheries that fail to demonstrate such comparability measures to the US by December 31, 2025, will be prohibited from entering the US market after that date. Canada is currently working towards

demonstrating appropriate measures are in place in all Canadian fisheries.

4.3 Species at risk

Several marine species are considered to be at risk within Canadian waters as a result of human activity. To prevent extinction and promote recovery of species considered to be extirpated, endangered, threatened or of special concern, the *Species at Risk Act* (SARA) and associated measures were adopted in 2002. This legislation includes prohibitions that protect endangered, threatened, and extirpated species, their residences, and their critical habitats. There are requirements to develop and implement a recovery strategy, action plan, or management plan for any species listed under SARA. Fishing and other activities that may impact species protected under SARA can proceed through the use of permits or agreements under Section 73 and 74 or through exemptions under Section 83(4).

The following SARA-listed species occur in NL waters:

- Northern Wolffish (*Anarhichas denticulatus*) – Threatened
- Spotted Wolffish (*Anarhichas minor*) – Threatened
- Atlantic Wolffish (*Anarhichas lupus*) – Special Concern
- White Shark (*Carcharodon carcharias*) – Endangered
- Leatherback Sea Turtle (*Dermochelys coriacea*) – Endangered
- Loggerhead Sea Turtle (*Caretta caretta*) – Endangered
- Beluga whale (*Delphinapterus leucas*) - Endangered
- Blue whale (*Balaenoptera musculus*) - Endangered
- Fin whale (*Balaenoptera physalus*) – Special Concern
- North Atlantic Right Whale (*Eubalaena glacialis*) – Endangered.
- Sowerby's Beaked Whale (*Mesoplodon bidens*) – Special Concern
- Northern Bottlenose Whale (*Hyperoodon ampullatus*) – Endangered

In accordance with the recovery strategies for the Northern wolffish (*Anarchichas denticulatus*), Spotted wolffish (*Anarchichas minor*), Leatherback sea turtle (*Dermochelys coriacea*), the licence holder is permitted to carry out commercial fishing activities authorized under the *Fisheries Act* that may incidentally kill, harm, harass, capture or take the Northern wolffish and/or Spotted wolffish as per subsection 83(4) of the *Species at Risk Act*, and the license holder is permitted to carry out commercial fishing activities authorized under the *Fisheries Act* that are known to incidentally capture Leatherback sea turtles.

Having met the conditions of sections 73(2) to (6.1) of SARA for White shark, licence holders are permitted to carry out commercial fishing activities authorized under the Fisheries Act that may incidentally kill, harm, harass, or capture this species.

Licence holders are required to return Northern wolffish, Spotted wolffish,

Leatherback sea turtle or White shark to the place from which it was taken, and where it is alive, in a manner that causes the least harm. Licence holders are also required to report in their logbook any interaction with these species.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is in an independent advisory body to the Minister of Environment and Climate Change that meet twice annually to assess the status of species at risk of extinction. There are several marine species which occur in 3Ps waters that have been assessed as endangered, threatened or of special concern by COSEWIC, but which are not yet listed under SARA. Should additional species be listed under SARA, there will be a need to address potential impacts to these new species. Industry will be consulted as required to develop any necessary strategies to mitigate these impacts.

4.4 Marine conservation initiatives

As of January 2023, the Government of Canada has formally protected 14.66% of Canada's marine and coastal areas. The Government of Canada has further committed domestically to protecting 25% by 2025 and working towards 30% by 2030.

To meet marine conservation targets, DFO is establishing MPAs and Marine Refuges (other effective area-based conservation measures (OECMs)), in consultation with industry, non-governmental organizations, and other interested parties. An overview of these tools, including a description of the role of fisheries management measures that qualify as other measures is available on the DFO website.

A number of the marine conservation measures established to date around the NL Region (Figure 8) were designed to benefit cod and other groundfish. The Laurentian Channel MPA, designated under the *Oceans Act* in 2019, is located in 3P and spans 11,570 km² (Figure 9). The overarching goal of the MPA is to conserve biodiversity through protection of key species and habitats, ecosystem structure and function. Supporting this goal, and recognizing the important ecological features of the Laurentian Channel, the conservation species of focus for the MPA are:

- corals (specifically sea pens)
- Black dogfish
- Smooth skate
- Porbeagle shark
- Northern wolffish
- Leatherback sea turtle

The MPA Regulations prohibit all commercial and recreational fishing throughout the MPA, with the exception of fishing that is authorized under

the Aboriginal Communal Fishing Regulations for Food, Social, and Ceremonial licences. The prohibitions in place for the Laurentian Channel MPA minimize the risk of human harm on species and habitats within the area. More information on these conservation measures can be found on the DFO website. Other protected areas may be established in the future.

Figure 6: Map of Marine Conservation Areas in NAFO Division 3P.

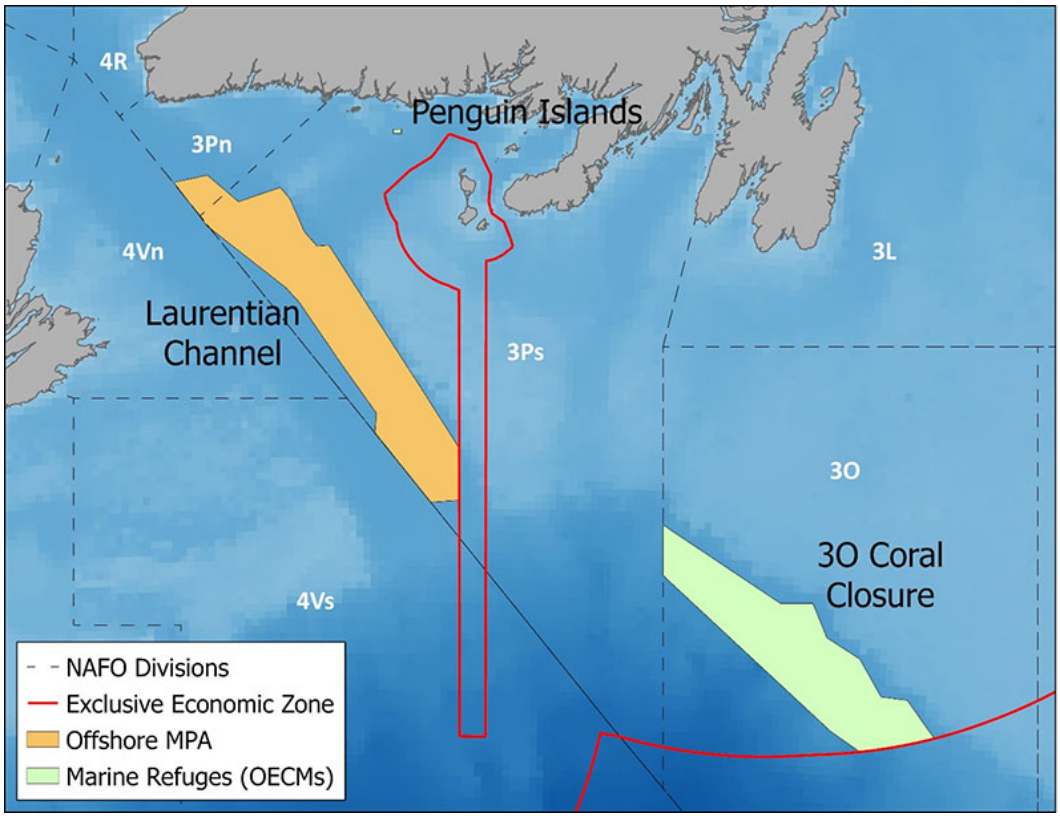


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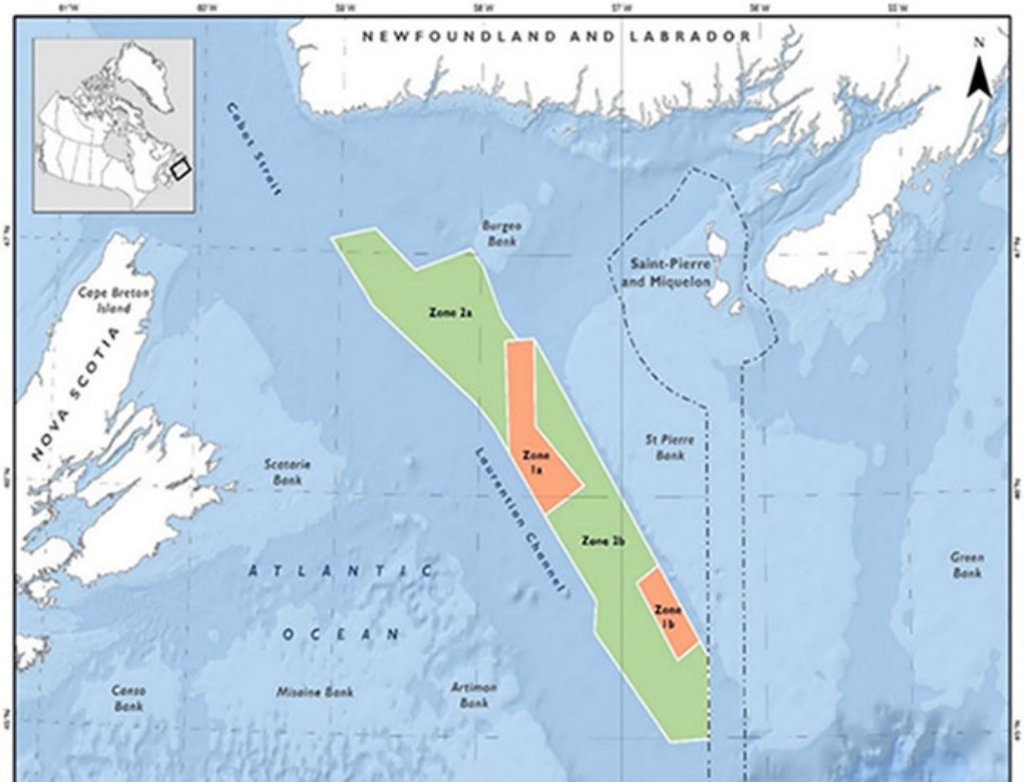
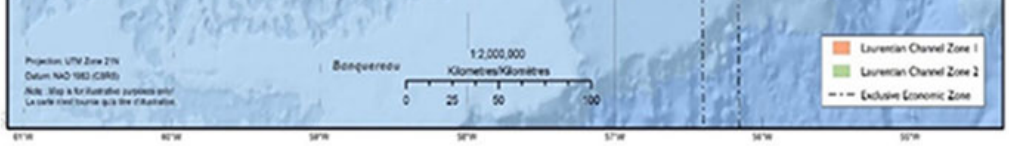
Figure 7: Map of Laurentian Channel MPA in NAFO Division 3P.





► Figure 7 - Text version

4.5 Habitat considerations

DFO seeks to conserve and protect fish and fish habitat through application of the *Fisheries Act* and the *Species at Risk Act*. The fish and fish habitat protection provisions of the *Fisheries Act* provide a holistic approach to conserving and protecting fish and fish habitat, supported by policies and programs that provide for the long-term sustainability of freshwater and marine resources. A key fish and fish habitat provision of the *Fisheries Act* is subsection 34.4(2), which prohibits the carrying on of any work, undertaking or activity, other than fishing, that results in the death of fish, without an authorization from the minister. Another key fish and fish habitat provision of the *Fisheries Act* is subsection 35(1), which prohibits the carrying on of any work, undertaking or activity that results in harmful alteration, disruption or destruction of fish habitat, without an authorization from the minister.

The Fish and Fish Habitat Protection Program provides advice to proponents to enable them to proactively avoid and mitigate the impacts of projects on fish and fish habitat, undertakes the review of proposed works, undertakings and activities that may affect fish and fish habitat, and ensures compliance with the *Fisheries Act* and the *Species at Risk Act* by issuing authorizations and letters of advice. Measures to avoid, mitigate and offset, as well as requirements for monitoring and reporting, may be included as conditions of authorization. Information related to how and when DFO reviews projects near the water is available on the Projects Near Water webpage.

4.6 Aquatic Invasive Species (AIS)

Seven AIS have been identified as present in various parts of NL coastal waters. These include European green crab, three species of tunicates (vase, goldenstar, and violet), coffin box bryozoan, Japanese skeleton shrimp, and oyster thief. In 3Ps specifically, all species are present in parts of the coastal regions but are not present all throughout. Several of these species can be detrimental to commercial fish habitat as they can displace kelp beds and seagrasses, among other effects. Because the species are not distributed all throughout NL coastal areas, it is extremely important to prevent their spread and movement to new locations within 3Ps and other NAFO divisions.

Best practices to prevent the introduction and spread of AIS include:

- being aware of which AIS are present or absent in the waters frequented/fished. Take precautions, such as cleaning, draining and drying, with respect to vessel traffic and gear movement between areas to prevent introductions and spread.
- routine vessel maintenance (i.e. cleaning the hull and using antifouling paint to prevent biofouling)
- cleaning and air-drying gear and ropes to prevent movement between areas by gear
- avoiding transportation of water from one location to another
- recognizing and reporting any AIS to DFO for early detection

More information and maps of aquatic invasive species in Newfoundland and Labrador can be found in the Aquatic invasive species section. Presence/absence maps of all species found in Newfoundland and Labrador can be found on this website.

4.7 Catch monitoring

Robust fishery monitoring information is essential for stock assessment and to effectively implement management measures, including quotas, bycatch limits, and closed areas. Logbooks, DMP, daily hails, VMS, and at-sea observers are required in many 3Ps groundfish fisheries. Fishery monitoring information is also needed to support the long-term sustainable use of fish resources, and to support market access for Canadian fish products.

In 2019, the Fishery Monitoring Policy was introduced. The objectives of this policy are to have dependable, timely and accessible fishery information necessary to:

- help ensure that Canadian fisheries are managed to support the sustainable harvest of aquatic species;
- to carry out enforcement activities to ensure compliance with the *Fisheries Act*, the *Oceans Act*, the *Species at Risk Act* and their associated regulations; and
- to apply a common set of procedural steps to establish fishery monitoring requirements across fisheries, to ensure consistent application of the policy.

Prescribed stocks have been identified as a priority, and the department intends to fully implement this policy for 3Ps Atlantic cod by 2027-28.

Please refer to Section 7 for further information on the specific monitoring programs and tools.

4.8 Market access

There is a market demand for ensuring fisheries are compliant with the PA, as seafood retailers have become increasingly committed to selling only

seafood that has been certified as sustainable. Some NL industry participants are currently engaged in Fishery Improvement Projects (FIPs) for several groundfish fisheries in 3Ps, including cod and redfish. The intent is to guide these fisheries towards meeting or exceeding the Marine Stewardship Council (MSC) standard. These initiatives have resulted in an increased focus on the development of PA-compliant frameworks and stock rebuilding, resulting in an increased demand for management and scientific capacity and capabilities.

Other market access challenges include the need for comparability measures to meet export requirements as the United States (US) is implementing the import provisions of the *Marine Mammal Protection Act* following court ruling. Refer to Section 4.2 for more information on Marine Mammal Interactions.

5.0 Objectives

DFO strives to manage groundfish stocks based on the principles of stock conservation and sustainable harvest, as well as ecosystem health and sustainability. The following objectives are used to guide the development of management measures that are designed to maximize the benefit of this resource for all stakeholders.

5.1 Stock conservation and sustainable harvest

Sustainable fisheries mean harvesting and farming fish stocks in a way that meets Canada's present needs without compromising the ability to meet future needs. Conservation and the long-term sustainability of groundfish stocks are important objectives for DFO. DFO will work with all stakeholders to ensure these objectives are achieved and that groundfish stocks support an economically viable and self-reliant fishery.

A successful model for sustainable fisheries management relies on 5 components, including:

- planning;
- making science-based decisions;
- managing environmental impacts;
- enforcing the rules; and
- monitoring results.

More details on each of these components can be found here: Canada's sustainable fisheries.

5.2 Ecosystem health and sustainability

The consideration of ecosystem health and sustainability is an essential

component of groundfish fisheries management. The role of groundfish species in the food web, as well as the impact of fisheries on non-target species and habitat are examples of important considerations for the long-term health of the ecosystem. Ongoing ecosystem-based research and science advice helps to inform the sustainable management of groundfish stocks (refer to Section 2.2 for further information).

5.3 Stewardship

The shared stewardship management objective recognizes that industry participants, indigenous groups, and all stakeholders are an important component of fisheries management policy development and the decision-making process. It also recognizes that achievement of the conservation objectives requires that governments, resource users and other stakeholders share responsibility for the implementation of fisheries management decisions and for their outcomes. The mandate of the 3Ps Groundfish Advisory Committee recognizes this objective and meets annually to provide recommendations to the department in support of the development of management measures that address conservation and sustainable use of groundfish resources (refer to Appendix B for further details about the committee).

5.4 Stock-specific objectives

Stock-specific objectives have been identified for 3Ps cod as part of the rebuilding plan for this stock which is available online at the DFO website. These objectives are detailed in Appendix D of this IFMP: (DFO 2024/016).

6.0 Access and allocation

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

6.1 Quotas and allocations

Decisions on domestic stocks are taken in consultation with the Groundfish Advisory Committee and based on the latest available science advice provided through the CSAS process (Appendix C, Table 6). Information on the TAC for stocks managed by Canada are available online on the Fisheries management decisions section of the DFO website.

TACs for 2018 to 2023 for domestic groundfish stocks are found in Section 7.1 (Table 4).

The shares of the Canadian allocation per fleet are shown in Table 3, for all domestic and NAFO stocks that are currently subject to a directed fishery

and where a TAC has been set.

Table 2: 2023 Canadian fleet sector shares for groundfish stocks in 3Ps.

Species	Fixed gear fg/ef <35’	Fixed gear fg/ef 35-64’	Fixed gear fg/ef <65’	Fixed gear fg/ef >65’	Fixed gear fg/ef 65’-100’	Mobile gear mg/em <65’	Mobile gear mg/em 65’-100’	Vessels over 100’
Atlantic Cod	N/A	N/A	78.314%	N/A	2.005%	4.902%	N/A	14.779%
Atlantic Halibut (3NOPs4VW5Zc)	N/A	N/A	58.750%	N/A	18.980%	2.840%	0.330%	15.700%
Redfish (Unit 2)	N/A	N/A	3.840%	N/A	N/A	15.042%	0.229%	80.889%
Skate	23.809%	23.809%	N/A	9.524%	N/A	42.858%	42.858%	N/A
Witch Flounder	N/A	N/A	5.030%	N/A	N/A	22.000%	N/A	72.970%

Moratorium

- American Plaice
- Grenadier
- Haddock
- Pollock

No Total Allowable Catch

- Greenland Halibut (Turbot)
- Lumpfish
- Monkfish
- White Hake[a]
- Winter Flounder

Note: [a] Competitive fishery between all fleet sectors.

6.2 Sharing arrangements

Under the Canada-France Agreement there are 4 groundfish stocks in 3Ps that have sharing arrangements in place (Table 3).

Table 3: Sharing arrangements of 3Ps groundfish stocks co-managed between Canada and France[a].

Species	Canadian share	French share
American Plaice	Moratorium	
Atlantic Cod	84.4%[b]	15.600%
Redfish (Unit 2)	96.400%	3.600%
Witch Flounder	88.700%	11.300%

Notes:

[a] Sharing arrangements between Canada and France in respect of the French Islands of St. Pierre et Miquelon, under the Canada-France Procès-Verbal.

[b] 1.334% of TAC allocated for Sentinel fishery and deducted from the Canadian Quota, resulting in Canadian Quota of 83.066% of overall TAC.

6.3 Communal commercial fisheries

Indigenous fisheries policy in Canada is guided by a vision of supporting healthy and prosperous Indigenous communities through:

- building and supporting strong, stable relationships;
- working in a way that upholds the honour of the Crown; and
- facilitating Indigenous acquisition and participation in fisheries and aquaculture and associated economic opportunities.

As per the Principles respecting the Government of Canada's relationship with Indigenous peoples, the Government of Canada is committed to achieving reconciliation with Indigenous peoples through a renewed, nation-to-nation, government-to-government, and Inuit-Crown relationship based on recognition of rights, respect, co-operation, and partnership as the foundation for transformative change.

DFO supports the participation of adjacent Indigenous organizations in commercial fisheries. The Aboriginal Fisheries Strategy Program (AFS) is designed to encourage Indigenous involvement in FSC and communal commercial fisheries and related economic opportunities. The Allocation Transfer Program (ATP) component of the AFS was the primary instrument used to voluntarily retire licences from commercial harvesters and subsequently reissue them to Indigenous groups on as communal commercial licenses. This program was retired in 2018.

The Northern Integrated Commercial Fisheries Initiative (NICFI) provides funding and supports development of Indigenous-owned communal commercial fishing enterprises and aquaculture operations. Indigenous groups also self-fund the acquisition of communal commercial fishing licences.

A subsequent program, Aboriginal Aquatic Resource and Oceans Management (AAROM) Program, was designed for Indigenous groups to collaboratively develop capacity and expertise to facilitate their participation in aquatic resource and oceans management. The NL Region currently supports three AAROM departments.

All communal commercial fishing licences issued to Indigenous groups are done so under the authority of the *Aboriginal Communal Fishing Licences*

Regulations pursuant to the *Fisheries Act*.

7.0 Management measures

7.1 Groundfish Total Allowable Catches (TAC)

Most commercial stocks are managed under a TAC or bycatch limit; however, several stocks are currently under moratorium. The TACs or Canadian allocation are listed in Table 4 for 2018-2023.

Table 4: Canadian total allowable catch (tonnes) for 3Ps groundfish stocks (2018-2023).

Stock	2018 TAC (t)	2019 TAC (t)	2020 TAC (t)	2021 TAC (t)	2022 TAC (t)	2023 TAC (t)
Atlantic Cod	4,967	4,967	2,235	1,118	1,118	1,083[a]
Atlantic Halibut (3NOPs4VWX5Zc)	4,164	4,789	5,507	5,445	4,807	4,744
Redfish (Unit 2)	8,194	8,194	8,194	8,194	8,194	8,194
Skate	1,050	1,050	1,050	1,050	1,050	1,050
White Hake	500	500	500	500	500	500
Witch Flounder	576	576	576	576	576	576

Note: [a] In 2023 Canada set aside 100t, separate from the TAC, for unaccounted removals of 3Ps cod.

Moratorium

- American Plaice
- Grenadier
- Haddock
- Pollock

No Total Allowable Catch

- Greenland Halibut (Turbot)
- Lumpfish
- Monkfish
- Winter Flounder

7.2 Fishing seasons

There are a number of factors DFO considers when establishing the season for the groundfish fishery, including:

- fish harvester safety (Appendix E – Safety at Sea)

- conservation
- markets
- presence of small fish / bycatch
- provide for an orderly harvest

Season dates are regularly discussed in detail as part of the stakeholder consultation process. Season dates are generally established on a fleet-by-fleet basis, and input from stakeholders is a key consideration.

Fishery openings and closings are communicated through DFO's Notice to Fish Harvesters system. Fishery opening and closing dates/times may be adjusted due to weather conditions. To the extent practicable, these decisions are taken in consultation with industry. Openings will occur at 0600 hours whenever possible in the interest of safety at sea.

7.3 Licensing

The Fisheries Licensing Policy for Newfoundland and Labrador (NL Licensing Policy) provides details on the various licensing policies that govern the commercial fishing industry in NL Region. The policy was developed to provide fish harvesters, Indigenous organizations, and the Canadian public with a clear and consistent statement regarding the DFO policy respecting commercial fishing enterprises, the registration of vessels, and the issuance of recreational and commercial fishing licences in the NL Region. The policy is updated on an ongoing basis. It is further supplemented by various complementary policies:

- The Commercial Fisheries Licensing policy for Eastern Canada
- The Policy on Issuing Licences to Companies

On December 9, 2020, the Government of Canada published amendments to the *Atlantic Fishery Regulations, 1985* and the *Maritime Provinces Fishery Regulations* in Canada Gazette, Part II, all of which came into force by April 1, 2021. These amendments replaced the Preserving the Independence of the Inshore Fleet in Canada's Atlantic Fishery policy (PIIFCAF) and are now referred to as the Inshore Regulations.

The amended regulations prohibit licence holders from transferring the use and control of the rights and privileges conferred under the licence to any third party; restrict the issuance of inshore licences to licence holders who have not transferred use or control of the rights and privileges conferred under the licence; and, prohibit anyone other than the licence holder from using and controlling the rights and privileges associated with a licence.

The NL Regional Licensing policy sets out requirements and eligibility criteria established by the Minister of Fisheries, Oceans and the Canadian Coast Guard with respect to the licensing of commercial fishing and communal commercial fishing in the NL Region. Communal commercial

licences issued to Indigenous organizations are managed under the authority of the *Aboriginal Communal Fishing Licences Regulations (ACFLR).* The Minister retains complete discretion to make an exception to these provisions.

The NL Licensing Policy is built on the following principles, as outlined in the Commercial Fisheries Licensing Policy for Eastern Canada (CFLP EC or Eastern Canada Policy):

- Be consistent with DFO's core mandate;
- Achieve a balance between capacity and the resource;
- Encourage environmentally sustainable harvesting;
- Foster greater economic viability of the fishery sector;
- Facilitate industry self-reliance;
- Develop a greater degree of partnership with a professional group of harvesters; and
- Streamline administration of licensing.

DFO Resource Management and Indigenous Fisheries should be consulted for all purposes of interpreting and applying licensing policies. Participants in the NL Region commercial fisheries who are not satisfied with licensing decisions made by DFO have the opportunity to request a licensing appeal.

Reasons for requesting a licensing decision appeal must relate to:

- an incorrect application of licensing policies;
- extenuating circumstances; or
- a change in policy.

All licences are issued through the National Online Licensing System (NOLS). The licence outlines the specific licence conditions under which the harvester is permitted to fish, including fishing area, season dates, fishing restrictions, gear type specifications, and harvest limits. The NOLS system is also used for paying licence fees, renewing vessel registration, submitting licence requests such as vessel transfers, and printing licences and licence conditions.

7.4 Dockside monitoring program

The DMP provides independent third-party verification of fish landings. The program supports fisheries management by providing accurate and timely harvest data, including the weight and species landed. All groundfish landings in 3Ps are subject to DMP, with the exception of Lumpfish. However, all groundfish taken as bycatch in the Lumpfish fishery is subject to DMP.

It is the responsibility of licence holders to ensure their catch is monitored by a DFO certified dockside monitoring company. Specific procedures for the

monitoring of catch weights at dockside have been developed through consultation with industry and DMP companies. DFO's accepted method of verification of landings at dockside is a direct weight-out using certified weight scales. The cost for this monitoring is the responsibility of the fishing industry.

7.5 Logbooks

Completing a logbook is mandatory under Section 61 of the *Fisheries Act*. Fish harvesters are required to record information about fishing catch and effort, and submit this data as specified in the conditions of licence. Fish harvesters are responsible for obtaining their own logbook from an approved/qualified logbook supplier. Information that should be in the logbook includes:

- location
- date
- time
- sets
- gear type
- weight of fish caught
- bycatch
- interactions with Species at Risk
- interactions with marine mammals

Fish harvesters should refer to logbook instructions found on the cover of each fishing logbook for a complete list of required information and how to record it. Additional information can also be included which may be useful to fish harvesters or DFO. Note that marine mammal mitigation measures are now mandatory and fish harvesters must report all interactions. Failure to submit a logbook may result in enforcement action.

7.6 At-Sea Observer Program

The At-Sea Observer Program provides independent third-party verification of fish harvesting activities. Observers are assigned to fishing vessels operating in the offshore, inshore and near-shore areas. The program provides accurate and timely information on fish harvests. It also provides scientific catch and sampling data. The fishing industry and the department use this information for fisheries management and scientific research purposes.

Commercial groundfish harvesters who are required to use at-sea observers as a condition of licence, make agreements with service providers qualified by the Canadian General Standards Board and designated by DFO.

7.7 Vessel Monitoring System

The National Vessel Monitoring System (VMS) is a satellite-based, positional tracking system used to monitor the location of vessels and their movement. The data is received in near real-time and contributes to improved compliance with fisheries regulations (Section 9.2), safety at sea, science, and marine security. Licence conditions specify requirements for carrying a DFO approved VMS unit on fishing vessels. The VMS monitoring requirement applies to all vessels fishing groundfish in Canadian waters of 3Ps, except vessels that are in the less than 10.668m (35ft) in length overall category.

7.8 Hails

Fish harvesters fishing groundfish within the inshore area in 3Ps who are at sea in excess of 24 hours duration, and/or are landing in ports outside the NL Region, are required to hail on a daily basis and to report the round weight of all species caught as specified in licence conditions. The hail report is required regardless of whether or not there has been fishing activity.

Fish harvesters fishing groundfish in the midshore and offshore areas of 3Ps also have hail requirements that may differ depending on fleet sector. Reporting requirements for hailing out and daily hails of fishing activity is specified in licence conditions.

7.9 Area closures

Areas restricted to fishing are specified in licence conditions. There are a number of areas in 3Ps where fishing is prohibited or restricted. Please refer to Section 4.4 for specific information on marine conservation closures.

7.10 Protocols for small fish and incidental catch/bycatch

There are protocols in place to minimize the incidence of capturing undersized fish, and the incidental catch and bycatch of non-targeted species. Protocols for small fish are based on a percentage limit for the capture of fish smaller than the given minimum legal size, specified in licence conditions and CHPs. For each fishery, CHPs set out measures to reduce incidental catch and bycatch of small fish and non-target species, which if exceeded may result in a temporary closure of a fishery. Refer to Section 4.1 for further information on management measures and efforts to reduce incidential catch and bycatch.

7.11 Gear restrictions

There are several measures in place that specify the required configuration of gear (for example mesh size or hook size) and the amount of gear permitted (number of nets, hooks). These measures are identified in the corresponding CHP for each directed fishery and/or the licence conditions.

Below are a few examples of general gear restrictions:

- For all fixed gear fisheries, each gillnet must have a valid tag, issued under the authority of the Minister, securely attached to the head-rope of the net within 1.85 meters from the end of the net. Gillnets shall not exceed 50 fathoms *(91.44m)* in length.
- Occurrences of lost gillnets must be recorded in the fishing logbook and reported to nearest DFO office. Every reasonable effort should be made to retrieve any lost nets.

7.12 Quota reconciliation

In fisheries where it is applied, quota reconciliation is a process of automatically deducting inadvertent quota overruns on a one-for-one basis from one year to the next. The accounting will result in a quantity of fish equal to the quantity of the overrun being taken off the allocation (i.e., not allocated) of the respective licence holder and/or fleet before the next fishing season begins.

Quota reconciliation is not a penalty or sanction for over-fishing. Rather, it is simply an accounting of overruns to support conservation of the resource and ensure that removals respect established quotas over time.

8.0 Shared stewardship arrangements

DFO officials work closely with the harvesting and processing sectors in all aspects of fisheries management, science, and conservation and protection.

8.1 Oceans management initiatives promoting shared stewardship

DFO is leading initiatives in integrated oceans management, including Marine Spatial Planning (MSP) within the NL Shelves and Estuary, and Gulf of St. Lawrence Bioregions. This includes a collaborative governance model with federal and provincial departments, and Indigenous partners. It also promotes stewardship by providing a forum for engagement with stakeholders who want to be included in the process.

Aligning integrated oceans management with fisheries management plans will support evidence-based resource use and fisheries management decisions. These decisions will be made with input from multiple interests, including commercial fisheries and other stakeholder groups.

9.0 Compliance plan

9.1 Conservation and protection program description

The deployment of conservation and protection (C and P) resources in the

fishery is conducted in accordance with management plan objectives, as well as in response to emerging issues. The mix of enforcement options available and over-riding conservation objectives determine the level and type of enforcement activity.

Work plans at the regional, area and detachment levels are 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 occurrences of non-compliance emerge.

9.2 Compliance performance

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

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

- promotion of compliance through education and shared stewardship;
- monitoring, control and surveillance activities;
- management of major cases and special investigations in relation to complex compliance issues; and
- use of intelligence data supplied through the National Fisheries Intelligence Service.

Pillar 1: Education and shared stewardship

Fishery officers who work within C and P actively participate in consultation processes with the fishing industry and Indigenous groups to address compliance issues. Informal meetings with stakeholders also occur on an ad-hoc basis to resolve in-season matters, in addition to regular interaction with fish harvesters. The consultative process may include C and P membership on area integrated management planning committees, which are comprised of fish harvesters, representatives from the provincial and federal governments, and other community groups with an interest in fishery conservation issues.

Fishery officers also visit local schools and educational institutions to present and discuss fisheries conservation issues and use this information as part of the C and P planning process.

Pillar 2: Monitoring, control and surveillance

Compliance monitoring

C and P promotes compliance with management measures governing the

fishery through:

- routine patrols
- dockside inspections
- at-sea inspections
- aerial surveillance
- VMS review
- at-sea observer deployments
- National Fisheries Intelligence Service (NFIS)
- Major Case Management

Patrols by vehicle, vessel and fixed-wing aircraft are conducted in accordance with operational plans which are developed based on available intelligence.

Each C and P detachment ensures that monitoring and inspections of fish landing activity are carried out on a routine basis. Where a vessel is selected for comprehensive inspection, C and P ensures that catch composition, weight verification and size variation sampling is conducted. C and P also ensures that surveillance flights are conducted on a routine basis. (Refer to Appendix F for analysis of Fishery Officer patrol hours and number of vessel checks from 2018-2022).

VMS is a requirement for certain fleets and provides real-time data on the location of vessels. C and P uses this resource to help determine where the enterprise is fishing, the port of destination and the estimated time of arrival to port. VMS data will also be relied upon for future analysis and comparisons of fishing activity.

At-sea observers are randomly deployed to observe, record and report aspects of the fishing activity. The resulting data is used to compare catch composition of vessels on observed trips vs. non-observed trips. C and P also reviews quota monitoring reports to ensure individual quotas are not exceeded.

C and P supplies best-known available local information to the National Fisheries Intelligence service for processing and uses this intelligence to combat all types of illegal fishing activity.

Compliance performance

C and P conducts post-season analysis sessions to review issues encountered during the previous season and to make recommendations on improving management measures. The initial sessions are conducted at the area level, followed by a regional session with other DFO sectors.

Pillar 3: Major case

C and P recognizes the need to focus attention on high-risk illegal activities

that pose significant threat to the achievement of conservation objectives, which usually cannot be addressed through education or routine monitoring. Some individuals, usually motivated by financial gain, persist through various complex and well-coordinated means in hiding illegal activities which put Canada's aquatic resources at risk.

C and P will focus on high-risk illegal activities that pose significant conservation threats. Detailed analysis of licence holders and possibly companies will be completed using:

- fishery profiling
- targeting of high-risk violators
- conducting forensic investigations
- accessing the resources of the National Fisheries Intelligence Service

Targeting of high-risk violators and/or processing facilities will also be a primary focus should intelligence gathered warrant such action. Any resulting operations will be conducted in conjunction with NFIS staff, additional field staff and area resources as required.

9.3 Compliance priorities

Compliance considerations in groundfish fisheries include:

- fishing gear requirements;
- quota overruns;
- high grading;
- unmonitored landings;
- fishing during closure; and
- monitoring of activity in the newly established Marine Refuge areas.

Verifying accurate reporting of all groundfish fishing activities will be a primary focus of C and P efforts for the duration of this IFMP.

C and P will focus enforcement effort on the detection of unmonitored landings.

9.4 Compliance strategy

C and P has developed an operational plan that outlines monitoring and compliance activities that will be carried out by C and P personnel adjacent to the 3Ps management areas. The plan provides guidance for C and P, promotes effective monitoring of the fishery, and enables C and P personnel to effectively maintain compliance with management measures governing this fishery. The objective of the plan is to collect information for ensuring compliance and conducting investigations.

The objective is to collect information for ensuring compliance and conducting investigations. Sources of information used by C and P include:

- NFIS
- vessel positioning data
- officer inspection data
- fishing logs
- DMP records
- at-sea observer records
- purchase transactions

10.0 Performance review

A review of the short-term and long-term objectives is an integral part of assessing the performance of groundfish fisheries. During the regional assessment process on the status of the stock, DFO Science may consider the applicable objectives in providing its advice. For fisheries management, the advisory meeting with stakeholders is a formal setting to review both short and long-term objectives. In addition to these formal reviews, DFO officials and industry representatives have an on-going dialogue on the fishery on a year-round basis. These informal discussions provide opportunities to review objectives and identify issues for discussion at the advisory meetings.

DFO NL region completes an annual internal post-season review with participation from Resource Management, C and P, and science staff. Regional headquarters and area-based staff participate in this process to identify local, area and regional fishery performance issues.

The performance review outlines the activities and controls that are used in achieving

fisheries management objectives. The specific strategies that are used to

achieve fisheries management objectives are identified below.

Measurable objectives/activities and fisheries management strategies

Conservation and sustainable harvest

- To conserve the groundfish resource to provide commercial sustainability to fish harvesters
    - Fishing season
    - Total Allowable Catch
    - Quota monitoring
    - Gear limits/restrictions
- To mitigate the impacts on other species, habitat and the ecosystem where groundfish fishing occurs, protecting biodiversity and ecosystem structure and function
    - Mandatory reporting of lost gear

    - Bycatch limits
    - Gear limits/restrictions
    - *Species at Risk Act*
    - Area closures
- To promote the development of sustainable fishing practices
    - Small fish and incidental catch protocols
- To employ effective monitoring and surveillance tools and mechanisms that ensure compliance with conservation measures, and provide resource management and scientists with appropriate information and basic data required to manage the groundfish fishery
    - Accurate completion of logbooks
    - Reliable DMP
    - Adequate level of at-sea observer coverage, both spatial and temporal
    - Adherence to electronic VMS requirements

Benefits to stakeholders

- To promote the continued development of a commercially viable and self-sustaining fishery
    - Access and allocation formulas are identified in the IFMP
    - Opportunities for additional access are addressed through the Allocation Transfer Program
- To provide fish harvesters with increased opportunity to develop long-term business stability
    - Multi-year decisions
    - Evergreen management plans
- To promote a co-management approach, providing stakeholders with an effective sharing of responsibility, accountability and decision making, within the constraints of the Fisheries Act
    - Establish an effective consultative process for stakeholders to participate in the decision-making process
    - Organize and participate in annual advisory meetings

DFO measures the performance of the fisheries that it manages through the Sustainability Survey for Fisheries. The survey is published every year and currently includes 192 fish stocks. The fish stocks were selected because of their economic or cultural importance; they represent the majority of total catch of fisheries managed by DFO.

The survey reports on the status of each fish stock and DFO's progress to implement its SFF policies, a set of national policies to guide the sustainable management of Canada's fisheries.

11.0 Glossary of terms

Abundance: Number of individuals in a stock or a population.

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

Division/Sub-division: An area defined by the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries by NAFO, and as described in the *Atlantic Fishery Regulations,1985*.

Biomass: Total weight of all individuals in a stock or a population.

Bioregion: A biogeographic division of Canada's marine waters out to the edge of the Exclusive Economic Zone, and including the Great Lakes, based on attributes such as bathymetry, influence of freshwater inflows, distribution of multi-year ice, and species distribution. Canada's marine protected areas network is being advanced in five priority marine bioregions: the Gulf of St. Lawrence, the Scotian Shelf, the Newfoundland-Labrador Shelves, the Western Arctic, and the Northern Shelf.

Bycatch: The catch retained onboard of any species other than a directed species.

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

Conservation Harvesting Plan (CHP): An annual plan submitted by each fleet and approved by the department that includes management measures to ensure fleet's do not exceed their quotas, minimize bycatch, encourage economic prosperity and enhance scientific information.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC): Committee of experts who assess and designate which wild species are in some danger of disappearing from Canada.

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

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

Directed species: The authorized species, or combination of species, retained onboard and taken by the fisher at a time, in an area and by a means that is authorized in species specific licence conditions.

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

Ecosystem-Based Management: Taking into account species interactions

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

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. This includes traps, weirs, gillnets, longlines, handlines, bar/beach seines and modified bar seines (known as tuck seines).

Food, Social and Ceremonial (FSC): A fishery conducted by Indigenous 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".

Incidental Catch: The catch of any species, other than a directed species that is immediately returned to the water, and where it is alive, in a manner that causes it the least harm.

Indigenous Traditional Knowledge: knowledge that is held by and unique to Indigenous 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 Indigenous knowledge holders. It often includes knowledge about the land and its resources, spiritual beliefs, language, mythology, culture, laws, customs and medicines.

Landings: Quantity of a species caught and landed.

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

Maximum Sustainable Yield: Largest average catch that can continuously be taken from a stock.

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

Mobile Gear: Any type of fishing gear that is drawn through the water by a vessel to entrap fish, including purse seines.

Natural Mortality: Mortality due to natural causes, represented by the mathematical symbol M.

Observer Coverage: Carrying a certified at-sea observer onboard a fishing 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 examined to determine the age of fish as annual rings can be observed and counted. Daily increments are also visible on larval otoliths.

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.

Quota: Portion of the Total Allowable Catch that a fleet, vessel class, association, country, etc. is permitted to take from a stock in a given period of time.

Recruitment: The number of individuals growing large enough to become part of the exploitable stock 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 (e.g., bottom trawl survey, plankton survey, hydroacoustic survey, etc.).

Species at Risk Act (SARA): A federal law enabling the Government to take action 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 Stock: Sexually mature individuals in a stock.

Stock: A population of individuals of one species found in a particular area, and used as a unit for fisheries management, e.g., NAFO area 4R Herring.

Stock Assessment: Scientific evaluation of the status of a fish stock within a particular area in a given time period.

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

Traditional Ecological Knowledge: 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, 1000kg or 2204.6 lbs.

Trawl: Fishing gear; a 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, while mid-water trawls are towed through 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 stock born in a particular year, also called "cohort".

Appendix A: Conservation harvesting plans

Conservation Harvesting Plans (CHP) for 3Ps groundfish outline fleet and fishery specific management measures such as season dates, authorized gear, gear restrictions, minimum size, incidental catch limitations, and area closures (refer to Section 7.0 for further information), and are considered relatively stable. The following CHPs are available from DFO upon request (Appendix G – Departmental Contacts) and include detailed and specific measures for groundfish covered by this IFMP.

- 3Ps Groundfish, Mobile Gear for vessels less than 27.4 meters
- 3Ps Groundfish, Fixed Gear for vessels less than 27.4 meters
- 2J3KLP4R Newfoundland and Labrador Lumpfish
- Atlantic-wide groundfish licence holders for fixed gear vessels 65-100’ (available from DFO upon request)
- Atlantic-wide groundfish licence holders for mobile gear vessels 65-100’ (available from DFO upon request)
- Atlantic-wide groundfish licence holders for vessels greater than 100’ (available from DFO upon request)
- Scandinavian longline vessels using fixed gear (available from DFO upon request)

An overview of stock-specific measures for 3Ps groundfish are outlined below in Table 5. Please note that the table does not include any stocks currently under moratorium, and that measures are subject to change.

Table 5: General fishery characteristics/key management measures for various 3Ps groundfish fisheries as outlined in Conservation Harvesting Plans (refer to the CHPs for fleet specific management measures).

Species	Fleet/gear type	Season	Key management measures
Atlantic Cod [a]	Fixed gear vessels less than 65 feet Authorized gear: • Gillnet • Longline • Cod Pots • Traps	3Ps (a)(b)(c)(f)(g)(h): Mid-May to February 28 3Ps (d)(e): Mid-May to November 15	• Individual Quota (IQ) • Gear restrictions • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required • Cod spawning and mixing closures • CHP available online
	Mobile gear vessels less than 65 feet Authorized gear: • Otter trawl	3Ps (f)(g)(h): Mid-May to February 28 3Ps (d)(e): Mid-May to November 15	• IQ or Harvesting Cap • Gear restrictions • Bycatch provisions • Fishing is not authorized in 3Ps(a)(b)(c) • Minimum fish size (length of fish) • 100% DMP required • Cod spawning and mixing closures • CHP available online
	Fixed gear vessels 65 - 100 feet Authorized gear: • Longline • Gillnets	3Ps (b)(c): Mid-May to February 28 3Ps (f)(g)(h): Mid-May to February 28 3Ps (a)(d)(e): Mid-May to November 15	• Enterprise Allocations (EAs) • Gear restrictions • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required • Cod spawning and mixing closures

Species	Fleet/gear type	Season	Key management measures
	>100 feet Authorized gear: • Otter Trawl	3Ps (f)(g)(h): Mid-May to February 28 3Ps (d)(e): Mid-April to November 15	• EAs • Gear restrictions • Bycatch provisions • Fishing is not authorized in 3Ps(a)(b)(c) • Minimum fish size (length of fish) • 100% DMP required • Cod spawning and mixing closures
Atlantic Halibut	Fixed gear vessels less than 65 feet Authorized gear: • Longline	Mid-May to March 31 Specific opening date determined annually in consultation with industry	• Weekly catch limits • Gear restrictions • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required • CHP available online
	Fixed gear vessels 65 - 100 feet Authorized gear: • Longline	April 1 to March 31	• EAs • Gear restrictions • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required
	Vessels greater than 100 feet and Scandinavian Longliners Authorized gear: • Longline	April 1 to March 31	• EAs • Gear restrictions • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required

Species	Fleet/gear type	Season	Key management measures
Greenland Halibut	Fixed gear vessels less than 65 feet Authorized gear: • Gillnets • Longlines	Mid-May to March 31 Specific opening date determined annually in consultation with industry	• Competitive fishery • Gear restrictions • Fishing not authorized in water depths less than 183 m (100 fathoms) • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required • Water depth restrictions • CHP available online

Species	Fleet/gear type	Season	Key management measures
Lumpfish	Fixed gear vessels less than 65 feet Authorized gear: • Gillnets	Season dates vary annually and by fishing area, and are determined annually in consultation with industry.	• Management by the control of the fishing effort (i.e., number of authorized nets, season length) • Gear restrictions • Fishing is only authorized in water depths less than 46 meters (25 fathoms) • Bycatch provisions • Harvesters are restricted to the Lumpfish area of their homeport. Harvesters who elect to fish an alternate area, must contact DFO prior to the season opening and submit a completed Schedule 14 • Lumpfish landings are not subject to dockside monitoring, but 100% of groundfish bycatch landed in the Lumpfish directed fishery are subject to DMP • CHP available online

Species	Fleet/gear type	Season	Key management measures
Monkfish	Fixed gear vessels less than 65 feet Authorized gear: • Gillnets	April 1 – March 31 Specific opening date determined annually in consultation with industry	• Gear restrictions • Bycatch provisions • 100% DMP required • Fishing is only authorized in water inside of 19 km of land when registered vessel eligibility is less than 12.2 m (40 feet) in length • CHP available online
Redfish [a]	Fixed gear vessels less than 65 feet Authorized Gear: • Gillnet	3Ps(a)(b): July 1 to March 31	• Competitive fishery • Fishing is only authorized in 3Ps units (a) and (b) • Fishing is authorized in water depths greater than 183 m (100 fathoms) • Gear restrictions • Bycatch provisions • Minimum size fish (length of fish) • 100% DMP required • Redfish spawning and mixing closures • CHP available online
	Mobile gear vessels less than 65 feet Authorized Gear: • Otter trawl	3Ps(a)(b)(c)(e)(f)(g)(h) portion of Unit 2: July 1 to March 31 3Ps(d): July 1 to November 15 (reviewed annually and implemented as necessary) 3Pn portion of Unit 2: July 15 to October 15	• Harvesting caps • Fishing area restrictions • Gear restrictions • Bycatch provisions • Minimum size fish (length of fish) • 100% DMP required • Redfish spawning and mixing closures • CHP available online

Species	Fleet/gear type	Season	Key management measures
	Mobile gear vessels 65 - 100 feet Authorized Gear: • Otter trawl	3Ps portion of Unit 2: July 1 – March 31 3Pn and 4Vn portion of Unit 2: July 15 – October 15	• EAs • Gear restrictions • Bycatch provisions • Minimum size fish (length of fish) • 100% DMP required • Redfish spawning and mixing closures
	Vessels greater than 100 feet Authorized Gear: • Otter trawl	3Ps portion of Unit 2: July 1 – March 31 3Pn and 4Vn portion of Unit 2: July 15 – October 15	• EAs • Gear restrictions • Bycatch provisions • Minimum size fish (length of fish) • 100% DMP required • Redfish spawning and mixing closures
Skate	Fixed gear vessels less than 65 feet Authorized gear: • Gillnet	April 1 – March 31 Specific opening date determined annually in consultation with industry	• Competitive fishery • Gear restrictions • Bycatch provisions • 100% DMP required • Fishing is only authorized in water inside of 19 km of land when registered vessel eligibility is less than 12.2 m (40 feet) in length • CHP available online
	Mobile gear vessels Authorized gear: • Otter trawl	April 1 – March 31	• Competitive fishery • Gear restrictions • Bycatch provisions • 100% DMP required • CHP available online

Species	Fleet/gear type	Season	Key management measures
	Fixed gear vessels greater than 65 feet Authorized gear: • Gillnet • Longline	April 1 – March 31	• Competitive fishery • Gear restrictions • Bycatch provisions • 100% DMP required • CHP available online
White Hake	Fixed gear vessels less than 65 feet Authorized gear: • Gillnet • Longline	Mid-May – March 31 Specific opening date determined annually in consultation with industry	• Competitive fishery • Fishing not authorized in 3Ps unit (c). • Fishing only authorized in water depths greater than 137 m (75 fathoms) • Gear restrictions • Bycatch provisions • 100% DMP required • CHP available online
	Fixed gear vessels greater than 65 feet Authorized gear: • Gillnet • Longline	Mid-May – March 31	• Competitive fishery • Gear restrictions • Bycatch provisions • 100% DMP required
Winter Flounder (Blackback)	Fixed gear vessels less than 65 feet Authorized gear: • Gillnet	Mid-May – March 31 Specific opening date determined annually in consultation with industry	• Fishing only authorized in 3Ps units (a), (b) and (c) • Fishing only authorized in water depths less than 55 m (30 fathoms) • Gear restrictions • Bycatch provisions • 100% DMP required • CHP available online

Species	Fleet/gear type	Season	Key management measures
Witch Flounder (Greysole)[a]	Mobile gear vessels less than 65 feet Authorized gear: Danish seine	April 1 – March 31	• Competitive fishery • Gear restrictions • Bycatch provisions • 100% DMP required • CHP available online
	Vessels greater than 100 feet Authorized gear: Otter trawl	April 1 – March 31	• EAs and competitive fishery • Fishing area restrictions • Gear restrictions • Bycatch provisions • Minimum fish size (length of fish) • 100% DMP required

Note:

[a] Fishing for American plaice; Atlantic cod; Redfish; or Witch flounder, is not permitted in the French zone unless licence has been issued by both Canada and France. Fishing of any other Groundfish species in the French zone is not permitted.

Appendix B: 3Ps groundfish advisory committee terms of reference

Mandate

The 3Ps Groundfish Advisory Committee (GAC) serves as a forum for the discussion of issues related to the management of the groundfish fishery in NAFO Sub-Division 3Ps. The committee's purpose is to provide advice and recommendations to the department in support of the development of management measures that address conservation and the sustainable use of groundfish resources. The committee will work to foster local and industry stewardship and partnerships. Science review and advice to support management measures is sought through the annual Science Regional Advisory Process (RAP). The advisory committee shall inform Canadian positions for decisions taken by the Canada-France advisory committee for the co-managed groundfish stocks listed in Annex 1 of the Procès-verbal Applying the March 27, 1972 Agreement between Canada and France on their Mutual Fishing Relations.

Guiding principles

The following principles will be used to guide decisions on the structure and operations of the 3Ps GAC:

- Transparent
  - The advisory process is transparent with open lines of communication and the provision of timely, accurate, accessible, clear and objective information. This information will be available to all participants in the process on an equal basis. DFO organizers will provide access to agendas and necessary information in advance of meetings.
- Accountable
  - Participants who represent a constituency are expected to bring forward the general views, knowledge and experience of those they represent, and report back about deliberations of the consultation activity and reasons for decisions taken. All participants share accountability for the success of the process.
- Inclusive representation
  - Participation in the advisory process should be balanced and reflect the broad range of interest of the membership. Observer status will be available at 3Ps GAC meetings, at the discretion of the chair(s), if requested by non-member stakeholders. Observers may be provided an opportunity participate in discussions following input from members.
- Effective
  - All participants should be satisfied that the process can achieve the goals of the mandate. This does not mean that participants will always agree with the final advice, outcome or recommendation.
- Efficient
  - The size of the advisory committee will reflect a balance between the diversity of fleet sector interests and participant numbers that will facilitate productive discussion.

Membership

The GAC will be comprised of representatives from DFO, the harvesting and processing sectors, Province of Newfoundland and Labrador, Aboriginal Organizations, and ENGO’s.

The GAC can be expanded to accommodate an organization, or group, that has an interest in management of groundfish resources. Requests for nomination to the GAC will be reviewed at the annual meeting. Changes to the membership will be at the discretion of the Chair. Further, the chair reserves the right to limit membership to maintain the committee’s efficiency.

Ad hoc working groups may be established by the GAC to review specific issues and report their findings to GAC as a whole.

All members are expected to review minutes and be aware of the discussion and outcome of the previous meeting in preparation for subsequent meetings. Further discussion of issues dealt with at previous meetings will generally be limited to correction or clarification of issues discussed.

Administration

- Meetings will be chaired by DFO.
- The GAC will meet at least once a year. The meeting schedule is at the call of the chair, with the schedule to be adjusted as the need requires. Any designated representative or alternate can request additional meetings.
- Meetings may occur either in person or by teleconference.
- The agenda will generally include only those issues for which the meeting was convened.
- DFO will be responsible for the preparation of the meeting agenda and minutes, in consultation with the GAC members.
- Expenses by designated representatives and alternates to attend GAC meetings are the responsibility of the organization, department, or company that they represent.

Operating principles

- The minister of DFO is responsible for the management of fisheries in Newfoundland and Labrador Region; DFO will maintain legislative authority towards the conservation of the groundfish resource and its habitat.
- GAC will strive to reach consensus. When consensus is not possible, the views of all members will be reflected in the record of the meeting, and GAC's views will be conveyed in a manner that communicates the points of view expressed by all of its members.
- Participants agree to share all relevant information where possible, and to accept the concerns and goals of others as legitimate.
- Participants agree to act in "good faith" in all respects of the process, including respecting confidentiality in relaying information to others.
- Participants will maintain a professional manner and refrain from discussions of a personal nature.
- Participants will be asked to provide any proposals to DFO in advance of the meeting for distribution to GAC members.
- The chair shall be responsible for notifying all participants of any meeting.
- Summary minutes of each meeting will be distributed by DFO after they

are reviewed and accepted by the chair.

Appendix C: 3Ps groundfish stock assessments

Table 6 : Status of 3Ps groundfish stocks based on most recently available CSAS/NAFO assessments[a]

Stock	Assessment type	Status of stock
3Ps American Plaice (Moratorium)	Surplus Production Model	At the time of the last assessment in 2019, Stock Biomass is in the critical zone at 35% of the Limit Reference Point (LRP). Little or no growth since 2008 and there is no level of catch which gives a high (95%) probability of stock growth. CSAS Science Advisory Report 2020/017
3Ps Atlantic Cod	State Space Model	At the time of the last assessment in 2023[b], Spawning Stock Biomass (SSB) is in the critical zone at 54% of the LRP. Increased natural mortality and low recruitment are limiting the growth of this stock. Fishing mortality is currently low, however given the low status and productivity of the stock, continued fishery removals delay recovery prospects. CSAS Science Advisory Report 2022/022
3Ps Haddock (Moratorium)	Research vessel survey indices	At the time of the last assessment in 2018, SSB is in the critical zone at 34% of the LRP. The LRP will be re-evaluated when the next large recruitment event is observed. This stock is characterized by sporadic large recruitment events, with the last significant recruitment index observed in 2007. CSAS Science Advisory Report 2019/007

Stock	Assessment type	Status of stock
3Ps Pollock (Moratorium)		Pollock do not generally occur in Newfoundland waters in sufficient numbers to support a commercial fishery. Pollock are semi-pelagic in nature, therefore surveys in this area using bottom otter trawls catch very few Pollock and may not give a reliable index of abundance or biomass. Until a reliable index is available it is not possible to provide advice on population status. Pollock was last assessed in 2018. CSAS Science Advisory Report 2019/039
3Ps Lumpfish	Research vessel survey indices	Lumpfish in 3Ps and 3LNO are considered to constitute a single biological stock. 3Ps stock biomass index over 2009-2018 was at its lowest levels. Lumpfish was assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as Threatened in 2017. The Pre-COSEWIC assessment (Research Document 2016/068) was conducted in November 2015 (Research Document – 2016/068) A DFO Recovery Potential Assessment (RPA) for Lumpfish (2021/019) occurred in March 2019 CSAS Science Advisory Report 2021/019 There is no schedule for this assessment.

Stock	Assessment type	Status of stock
3Ps Monkfish	Research vessel survey indices	Monkfish in 3Ps and 3LNO are considered to constitute a single biological stock. At the time of the last assessment in 2017, recruitment of Age 3 Monkfish in Divisions 3LNOPs over 2014-17 was less than 50% of the time-series' average, and the lowest in the 2001-2017 time-series. The relative fishing mortality index peaked during 2002-03, and then remained below the 1996-2016 average since 2007. A proxy LRP of 2,000 t was accepted and the biomass index (5,010 t) was estimated to be 2.5 times larger than the accepted LRP. CSAS Science Advisory Report 2018/010 There is no schedule for this assessment.
Unit 2 Redfish	RV survey indices	At the time of the last assessment in 2022, large numbers of regulatory-sized fish (22 – 26 cm in length) have entered the fishery in Unit 2 since 2019. The Unit 2 (2018 – most recent calibrated survey) total estimated biomass for S. mentella (805 kt) was the highest value recorded in the time series beginning in 2000, while S. fasciatus (101 kt) was below the series mean. In 2021, the SSB of *S. Mentella* would be in the Healthy Zone based on the proposed upper stock reference (USR). The magnitude of the increase in spawning stock biomass of *S. Fasciatus* is uncertain, but evidence indicates the stock is at least above the LRP. Short-term prospects for Redfish stocks in Unit 2 are generally positive. CSAS Science Advisory Report 2022/039

Stock	Assessment type	Status of stock
3Ps Witch Flounder	RV survey indices	At the time of the last assessment in 2017, Spring research vessel (RV) survey biomass and abundance indices in 2016 and 2017 are at or among the highest in the time series. Pre-recruit abundance (16-30 cm) from the RV survey has varied without trend since 1996. The stock is currently above the LRP, and has been in most years of the time series (1983-2017). This stability indicates the stock was able to sustain the range of harvest rates over this time period. CSAS Science Advisory Report 2018/011
3Ps White Hake	RV survey indices	White hake in 3Ps and 3NO are considered to constitute a single biological stock. At the time of the last assessment in 2017 that focused on the 3Ps portion, White hake biomass increased in 2000-2003, generated by the very large recruitment in 1999. Subsequently, the Spring research survey biomass index declined. Recruitment remains very poor in the whole stock area (3NOPs). Stock Status is unknown. No information is available on recruitment and relative fishing mortality since 2019. CSAS Science Advisory Report 2018/005 For NAFO, the management unit is confined to NAFO Div. 3NO, which is a portion of the stock that is distributed in NAFO Div. 3NO and Sub-division 3Ps. 3NOPs White hake is assessed every 2 years by NAFO Scientific Council. (NAFO SCR DOC.23/036)

Stock	Assessment type	Status of stock
3Ps Thorny Skate	RV survey indices	Thorny skate in 3Ps and 3LNO are considered to constitute a single biological stock. At the time of the last assessment in 2020 that focused on the 3Ps portion, 3LNOPs Thorny skate stock is currently above the LRP. Stock biomass has been generally increasing since the mid-1990s, and the Spring research survey biomass index indicated a gradually increasing trend. Recruitment remains unknown since 2020 in the whole stock area (3LNOPs). CSAS Science Advisory Report 2022/009 For NAFO, the management unit is confined to NAFO Div. 3LNO, which is a portion of the stock that is distributed in NAFO Div. 3LNO and Sub-division 3Ps. 3LNOPs Thorny skate is assessed every 2 years by NAFO Scientific Council (NAFO SCR DOC.22/026).
3Ps Atlantic Halibut	Spatially Integrated Statistical Catch-At-Length (SISCAL) model	Atlantic halibut Divisions 3NOPs4VWX5Zc is considered to constitute a single biological stock. At the time of the last assessment in 2022, the stock has increased from the depleted state observed in the early 1990s and SSB is now in the Healthy zone. CSAS Science Response 2023/020
3Ps Roundnose Grenadier (Moratorium)	RV survey indices	At the time of the last Recovery Potential assessment in 2019, available abundance indicators from RV surveys are limited and sample only a portion of the preferred depth range/distribution of this species. CSAS Science Advisory Report 2021/019 (dfo-mpo.gc.ca) Roundnose Grenadier was assessed by COSEWIC as Endangered in 2008. There is no schedule for this assessment.

Notes:

[a] Some stocks in this table are co-managed with France under the *Procès-verbal Applying the March 27, 1972 Agreement between Canada and France on Their Mutual Fishing Relations*. Refer to Table 3.

[b] Data based on assessment completed in 2023; FSAR report has now been published and posted online.

Appendix D: Precautionary approach framework reference points

Table 7 : Summary of the Precautionary Approach (PA) Framework reference points and Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and Species at Risk Act (SARA) status for various 3Ps Groundfish Stocks

Species	Limit Reference Point (LRP)	Upper Stock Reference (USR)	Stock Status	PA-compliant Harvest Control Rules (HCR)	COSEWIC status	SARA status
American Plaice 3Ps	40% BMSY	Not defined	Critical zone	Not defined (under moratorium since 1993)	Threatened (COSEWIC 2009)	No schedule, no status
Atlantic Cod 3Ps*	66 kt	Not defined	Critical zone	Available (Refer to 3Ps Cod Rebuilding Plan)	Endangered (COSEWIC 2010)	No schedule, no status
Atlantic Halibut 3NOPs4VWX5Z	0.4 SSBMSY (5.3 kt)	0.8 SSBMSY (10.6 kt)	Healthy zone	Available (refer to 2023 Science Response)	Not at Risk (COSEWIC 2011)	No schedule, no status
Greenland Halibut 3Ps	Not defined	Not defined	Not assessed	Not defined	Not assessed	No schedule, no status

Species	Limit Reference Point (LRP)	Upper Stock Reference (USR)	Stock Status	PA-compliant Harvest Control Rules (HCR)	COSEWIC status	SARA status
Grenadier 3Ps	Not defined	Not defined	Not assessed	Not defined (under moratorium since 1993)	Roundnose Grenadier: Endangered (COSEWIC 2008) Roughhead Grenadier: Not at risk (COSEWIC 2018)	No schedule, no status
Haddock 3Ps	SSB1998	Not defined	Critical zone	Not defined (under moratorium since 1993)	Not assessed	No schedule, no status
Lumpfish 3KLPs	40% BMSY (7,915 t)	80% BMSY (15,831 t)	Critical zone	Not defined	Threatened (COSEWIC 2017)	Currently in listing process (decision pending)
Monkfish 3LNOPs	2,000 t	Not defined	Uncertain, above LRP	Not defined	Not assessed	No schedule, no status
Pollock 3Ps	Not defined	Not defined	Uncertain	Not defined (under moratorium since 1993)	Not assessed	No schedule, no status
Redfish Unit 2 (*S. mentella* and *S. fasciatus*)	*S. mentella* is 44 kt *S. fasciatus* is 30 kt	*S. mentella* is 265 kt *S. fasciatus* is 168 kt	*S. mentella*: Healthy *S. faciatus*: Uncertain; stock is above the LRP.	Not defined	*S.mentella:* Not assessed *S. faciatus*: Threatened (COSEWIC 2010)	No schedule, no status

Species	Limit Reference Point (LRP)	Upper Stock Reference (USR)	Stock Status	PA-compliant Harvest Control Rules (HCR)	COSEWIC status	SARA status
Thorny Skate 3LNOPs	Not defined	Not defined	Uncertain; stock is above the LRP (Blim)	Not defined	Special Concern (COSEWIC 2012)	Currently in listing process (decision pending)
White hake 3NOPs	Not defined	Not defined	Uncertain	Not defined	Endangered (COSEWIC 2013)	Currently in listing process (decision pending)
Winter flounder 3Ps	Not defined	Not defined	Uncertain	Not defined	Not assessed	No schedule, no status
Witch flounder 3Ps	Interim LRP proxy of 40% BMSY, based on survey indices	Not defined	Uncertain as USR is not defined; stock is above the LRP.	Not defined	Not assessed	No schedule, no status

Appendix E: Safety at Sea

In the federal government, Safety at Sea is a shared responsibility. DFO and Transport Canada have established a framework for cooperation to address this through a Memorandum of Understanding (MOU) that develops safety goals, allows for the exchange of vessel information, and the promotion of a safety culture among commercial fish harvesters. Transport Canada has the responsibility for regulating shipping, navigation, and vessel and marine personnel safety. DFO has responsibility for the management of fisheries resources with the Canadian Coast Guard (CCG) responsible for emergency response. In Newfoundland and Labrador, the provincial Workplace Health, Safety, and Compensation Commission (WHSCC) has jurisdiction over health and safety issues in the workplace.

Vessel owners and operators have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, operators, 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 and other applicable agencies. Vessels subject to inspection should have a certificate of inspection valid for the area of intended operation.

1. **Registration**
    a. All vessels greater than 10hp are required to be registered with TC under the *Canada Shipping Act 2001*, as TC is responsible for regulations and enforcement related to the safety of all vessels and marine personnel.
    b. All vessels used for commercial fishing are required to be registered with DFO under the *Fisheries Act* and the *Atlantic Fishery Regulations, 1985*, as DFO is responsible for the proper management and control of fisheries and the conservation and protection of fish and fish habitat.
2. **Vessel condition**
    a. Vessel owners have an obligation under the *Canada Shipping Act 2001* to ensure compliance with all applicable requirements. This obligation is extended to vessel operators to ensure the requirements of the Fishing Vessel Safety Regulations are adhered to. Before leaving port, vessel owners are required to ensure the vessel is designed, constructed, and equipped to operate safely and be seaworthy in its area of operation. This would include such things as:
        - Any modifications made to the vessel need to be done in accordance with standards and verification available if requested. Vessel stability may also need to be verified to include any modifications made.
        - Hatches, doors, and windows watertightness (gaskets, dents, and damage),
        - Underwater penetrations are in good order (not degraded or rusted),
        - Required safety equipment is onboard and valid (not expired),
        - Navigation lights are fitted and in good working order (working bulbs and fixtures are not blocked)
    b. Owners and operators are also required to ensure all certificates required, are up to date and valid prior to sailing. These certificates include:
        - Vessel Inspection Safety Certificate (if vessel is over 15GT)
        - Crew Certificates (Marine Emergency Duties, Radio Certificate, Nautical Certificates, etc.)
3. **Fishing vessel stability**
    a. Stability is important and has been found to be a contributing factor to incidents in the past. Vessels built after July 13th, 2018, are

required to have a stability assessment completed and onboard. Vessels built prior to July 13th, 2108, are required to have adequate stability and owners may need to provide verification of adequate stability if requested.

b. Vessel crews should ensure weights are kept as low as possible and any water onboard is able to be shed overboard through pumps or freeing ports. Vessels with fluid catches should prevent excessive movement of the catch with subdivisions or totes, etc. Any deck equipment should be stacked and secured, keeping as low a center of gravity as possible in mind.
c. Fishing vessel owners are required to develop detailed instructions addressing the limits of stability for each of their vessels. The instructions must be based on a formal assessment of the vessel by a qualified naval architect and include detailed safe operation documentation. Instructions should be kept on board the vessel at all times.
d. Fishing vessel owners should also keep on-board detailed documentation on engine room procedures, maintenance schedules to ensure watertight integrity, and instructions for regular practice of emergency drills.
e. Fish harvesters should know the limitations of their vessels. If unsure, the vessel operator should contact a qualified naval architect, marine surveyor, or the local Transport Canada Marine Safety office.

4. **Emergency procedures and drills**
   a. The vessel operator 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.
   b. Since 2017, fishing vessels have been required to have written safety procedures onboard. This includes, for example:
      - Person Overboard
      - Fire onboard
      - Abandoned ship
      - Pollution
      - Any other procedures deemed necessary.
   c. These procedures are specific to the vessel, the operation, and the numbers of crew members onboard. As crew members change vessels, the owner and operator are required to ensure the crew is familiar with the vessel's layout and safety equipment placement and use so they are aware of their duties in an emergency. Drills should be conducted as often as necessary. Every time a new crew member comes onboard, a review of the safety procedures

followed by drills should take place. Existing crew members should conduct drills several times a year to remain proficient.

d. Should a vessel be found to not have written emergency procedures onboard, they will be detained and prevented from sailing until such time as the procedures are onboard and the crew can demonstrate proficiency.
e. Since July 30, 2003 all crew members with more than six 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:
    - hazards associated with the marine environment,
    - prevention of shipboard incidents (including fires),
    - raising and reacting to alarms,
    - fire and abandonment situations,
    - skills necessary for survival and rescue.

5. **Safety equipment**
    a. Vessel safety equipment from the Fishing Vessel Safety Regulations is based on hull length and the vessel's voyage (longer vessels going further offshore require more safety equipment).
    b. TC uses a vessel's hull length which is defined as the longest length from stem to transom, including parts that are permanently fixed to the vessel and extend beyond the stem or transom such as:
        - fixed spars
        - bowsprits
        - pulpits or
        - deck extensions
    c. DFO uses the vessel length overall which is defined as the maximum horizontal distance measured between perpendiculars erected at the extreme ends of the outside of the main hull of a vessel (includes the vessel‘s bottom, sides and deck). Transom platforms extending beyond the stern of a vessel, and any other extensions on the hull will be considered part of the main hull of a vessel.
6. **Personal flotation devices (PFDs)**
    a. PDFs are to be worn when there is a risk of drowning (jeopardizing safety). The Operator is to determine when there is a risk of drowning and inform the crew to wear a PFD.
    b. PFDs for fishing vessels must be Transport Canada Approved and be:
        - Of a highly visible color
        - Fitted with retro-reflective tape and
        - Fitted with a whistle.

c. Owners and operators are to be aware that requirements for the usage and wear of PFDs are regulated by both the Provincial OHS and federally by Transport Canada Marine Safety and Security. Please check these both to ensure all applicable requirements are followed.

7. **Cold water immersion**

   Vessel operators should know what to do to prevent themselves or their crew from falling into the water and what to do if that occurs. 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 Celsius. Newfoundland and Labrador waters are usually below 15 degrees.

   a. The effects of cold water on the body occur in four stages:
      - cold shock
      - swimming failure
      - hypothermia
      - post-rescue collapse

8. **Weather**

   Vessel owners and operators are reminded of the importance of paying close attention to current weather trends and forecasts during the voyage. Marine weather information and forecasts can be obtained from Environment Canada's website.

9. **Emergency radio procedures**
   a. Vessel owners and operators should ensure that all crew are able to activate the Search and Rescue (SAR) system by contacting the Canadian Coast Guard (CCG). It is strongly recommended that all fish harvesters carry a registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB), registered with Coast Guard's National Search and Rescue Secretariat.
   b. All crew members should know how to make a distress call and should obtain their restricted radio operator certificate from Innovation Science and Economic Development (ISED) Canada (formerly Industry Canada).
   c. 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, register their DSC radios with ISED Canada with a Marine Mobile Services Identity (MMSI) number. A registered DSC VHF radio has the capability to alert other DSC equipped vessels in the immediate area and advise Coast Guard MCTS that the vessel is in distress.

10. **Collision regulations**
    a. Fish harvesters should have a thorough knowledge of the Collision

Regulations and the responsibilities between vessels where the 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.

b. To help reduce the potential for collision or close-quarters situations that may also result in the loss of fishing gear, fish harvesters are encouraged to monitor the appropriate local Vessel Traffic Services (VTS) VHF channel when traveling or fishing near shipping lanes or other areas frequented by large commercial vessels.

11. **Sail plan**
    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 centre. After leaving port, the fish harvester should contact the holder of the sail plan daily or as per another schedule. The sail plan should ensure notification to JRCC when communication is not maintained, which might indicate your vessel is in distress. Be sure to cancel the sail plan upon completion of the voyage.

Links

- Canada Shipping Act 2001
- TC Fishing Vessel Safety – Regulations:
  - C.R.C., c. 1486.pdf (justice.gc.ca)
  - Collision Regulations
  - Small Fishing Vessel Safety Manual
- Transport Canada Centers
- Environment Canada weather information

Appendix F: DFO conservation and protection enforcement data

Table 8: Number of fishery officer hours dedicated to, and number of vessel checks for 3Ps groundfish species in domestica Canadian waters by conservation and protection, DFO-NL Region (2018).

Species	Fishery officer patrol hours	Total hours	# of vessel checks
Cod[b]	583	1491.5	53
Greenland Halibut	26	41.5	10

Species	Fishery officer patrol hours	Total hours	# of vessel checks
Redfish	79	185	8
Atlantic Halibut	66.5	519	7
Flounder[c]	0	8	0
Lumpfish	7.5	7.5	0
Skate	10.5	27	1
Hake[d]	0	0	0
Other Groundfish[e]	77.5	200.5	7

Table 9: Number of fishery officer hours dedicated to, and number of vessel checks for 3Ps groundfish species in domestica Canadian waters by conservation and protection, DFO-NL Region (2019).

Species	Fishery officer patrol hours	Total hours	# of vessel checks
Cod[b]	825	1831.5	85
Greenland Halibut	15	34.5	0
Redfish	58	109.5	10
Atlantic Halibut	113	820.5	15
Flounder[c]	12	22.5	2
Lumpfish	0	0	0
Skate	9.5	50	1
Hake[d]	0	0	0
Other Groundfish[e]	98	378.5	9

Table 10: Number of fishery officer hours dedicated to, and number of vessel checks for 3Ps groundfish species in domestic[a] Canadian waters by conservation and protection, DFO-NL Region (2020).

Species	Fishery officer patrol hours	Total hours	# of vessel checks
Cod[b]	625.5	2092.5	33
Greenland Halibut	0	47	0
Redfish	60	157	1
Atlantic Halibut	51	156	9
Flounder[c]	0	0	0
Lumpfish	7.5	7.5	0
Skate	0	2	0
Hake[d]	7.5	30	0
Other Groundfish[e]	2.5	52.5	2

Table 11: Number of fishery officer hours dedicated to, and number of vessel checks for 3Ps groundfish species in domestic[a] Canadian waters by conservation and protection, DFO-NL Region (2021).

Species	Fishery officer patrol hours	Total hours	# of vessel checks
Cod[b]	715	1223.5	47
Greenland Halibut	1	3	0
Redfish	36	88.5	2
Atlantic Halibut	242.5	323.5	23
Flounder[c]	0	0	0
Lumpfish	0	0	0
Skate	23.5	23.5	2
Hake[d]	13	24	1
Other Groundfish[e]	85.5	124.5	11

Table 12: Number of fishery officer hours dedicated to, and number of vessel checks for 3Ps groundfish species in domestic[a] Canadian waters by conservation and protection, DFO-NL Region (2022).

Species	Fishery officer patrol hours	Total hours	# of vessel checks
Cod[b]	993.2	1345	77
Greenland Halibut	1	3	3
Redfish	141.7	169.2	6
Atlantic Halibut	393	476.5	56
Flounder[c]	0	0	0
Lumpfish	7.5	7.5	0
Skate	1	1	2
Hake[d]	0	0	0
Other Groundfish[e]	61.5	61.5	0

Notes:

[a] Information on Canada's High Seas Monitoring, Control and Surveillance Activities, including those in the NAFO Regulatory Area

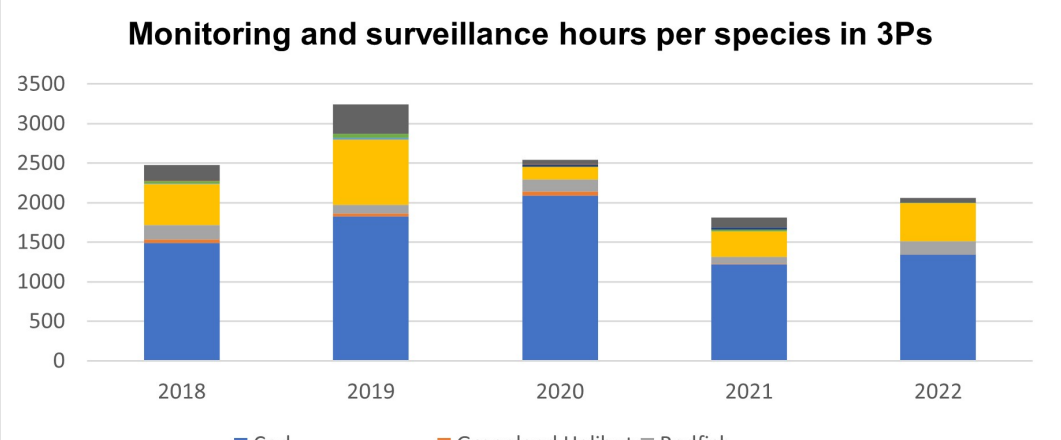
[b] Cod includes Atlantic cod and Rock cod.

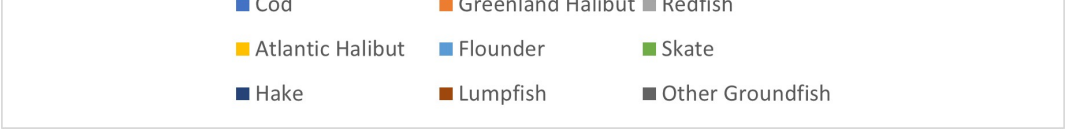
[c] Flounder includes American plaice, Winter flounder and Yellowtail flounder.

[d] Hake includes White hake and Silver hake.

[e] Other Groundfish includes data for Pollock, Haddock and Grenadier.

Figure 8: Total DFO monitoring and surveillance hours per species in Canadian 3Ps waters (2018-2022) (Conservation and protection, DFO-NL Region).





► Figure 8 - Text Version

Table 13 : Total violations per species in domestic[a] Canadian waters of 3Ps (2018-2022) (Conservation and protection, DFO-NL Region).

Species	2018	2019	2020	2021	2022	Average per year
Cod[b]	17	26	3	3	1	10
Greenland Halibut	0	2	1	0	0	0.6
Atlantic Halibut	1	6	2	1	0	2
Flounder[c]	0	1	0	0	0	0.2
Redfish	2	0	0	1	3	1.2
Skate	1	2	0	0	0	0.6
Hake (White/Silver)	0	0	1	0	0	0.2
Lumpfish	0	0	0	0	0	0
Other Groundfish[d]	3	5	0	0	1	1.8
Total	**24**	**42**	**7**	**5**	**5**	**16.6**

Notes:

[a] Information on Canada's High Seas Monitoring, Control and Surveillance Activities, including those in the NAFO Regulatory Area, is available online.

[b] Cod includes Atlantic cod and Rock cod.

[c] Flounder includes American plaice, Winter flounder and Yellowtail flounder.

[d] 'Other Groundfish' includes data for for Pollock, Haddock and Grenadier.

Appendix G: Departmental contacts

For additional information, please contact:

DFO Newfoundland and Labrador Region headquarters

80 East White Hills Road, P.O. Box 5667, St. John's, NL, A1C 5X1

- Regional Manager, Groundfish, International Fisheries & Species at Risk

709-689-2019

- Senior Resource Manager, 3Ps Groundfish

709-725-6912

- Resource Manager, 3Ps Groundfish

709-682-9915

DFO Newfoundland and Labrador Area Offices

Resource Management, Area Office

Corner Brook, NL

- 709-649-3549
- 709-279-7626

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