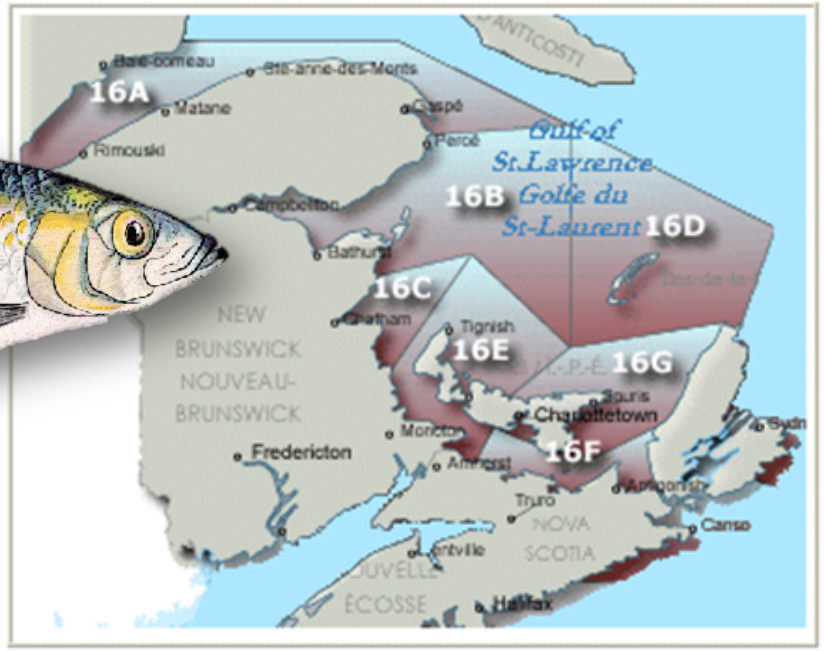
REBUILDING PLAN

Canadian Atlantic Herring (*Clupea harengus*) Spring spawner component



NAFO Division 4T

Spring spawner component has been near or in the critical zone since 2004.

Canada

Context (Legal)

On June 21, 2019 the new Fisheries Act received royal assent and became law.

The new provisions and stronger protections will better support the sustainability of Canada's marine resources for future generations.

BEFORE	Protection for **commercial, recreational** or **Aboriginal fisheries**	**Uncertainty** around requirements for development projects	**No provisions** referencing the independence of inshore fishers	**No provisions** specifically designed to protect marine biodiversity	**No provisions** to include Indigenous participation in decision making	**No provisions** to restore degraded habitat and rebuild fish stocks
AFTER	Protection for **all** fish and fish habitat	**Clearer permitting** for development projects	**New ability** to enshrine inshore fishing policies **into regulations**	Better ability to **protect biodiversity** for the long-term	Indigenous traditional knowledge provided **must inform** habitat decisions	Increased focus on **habitat restoration** and **rebuilding fish stocks**

Context (Legal)

On June 21, 2019 the new Fisheries Act received royal assent and became law.

The modernized Act (Bill C-68) also includes new, modern safeguards, making it stronger than ever.

Before Bill C-68

No legal requirements related to rebuilding fish stocks

First Session, Forty-second Parliament,
64-65-66-67-68 Elizabeth II, 2015-2016-2017-2018-2019

STATUTES OF CANADA 2019

CHAPTER 14

An Act to amend the Fisheries Act and other Acts in consequence

ASSENTED TO

JUNE 21, 2019

BILL C-68

Première session, quarante-deuxième législature,
64-65-66-67-68 Elizabeth II, 2015-2016-2017-2018-2019

LOIS DU CANADA (2019)

CHAPITRE 14

Loi modifiant la Loi sur les pêches et d'autres lois en conséquence

SANCTIONNÉE

LE 21 JUIN 2019

PROJET DE LOI C-68

New *Fisheries Act*

Minister must implement measures to maintain major fish stocks listed in regulation at levels needed to promote sustainability, and **must develop and implement rebuilding plans for major stocks listed in regulation that are depleted**

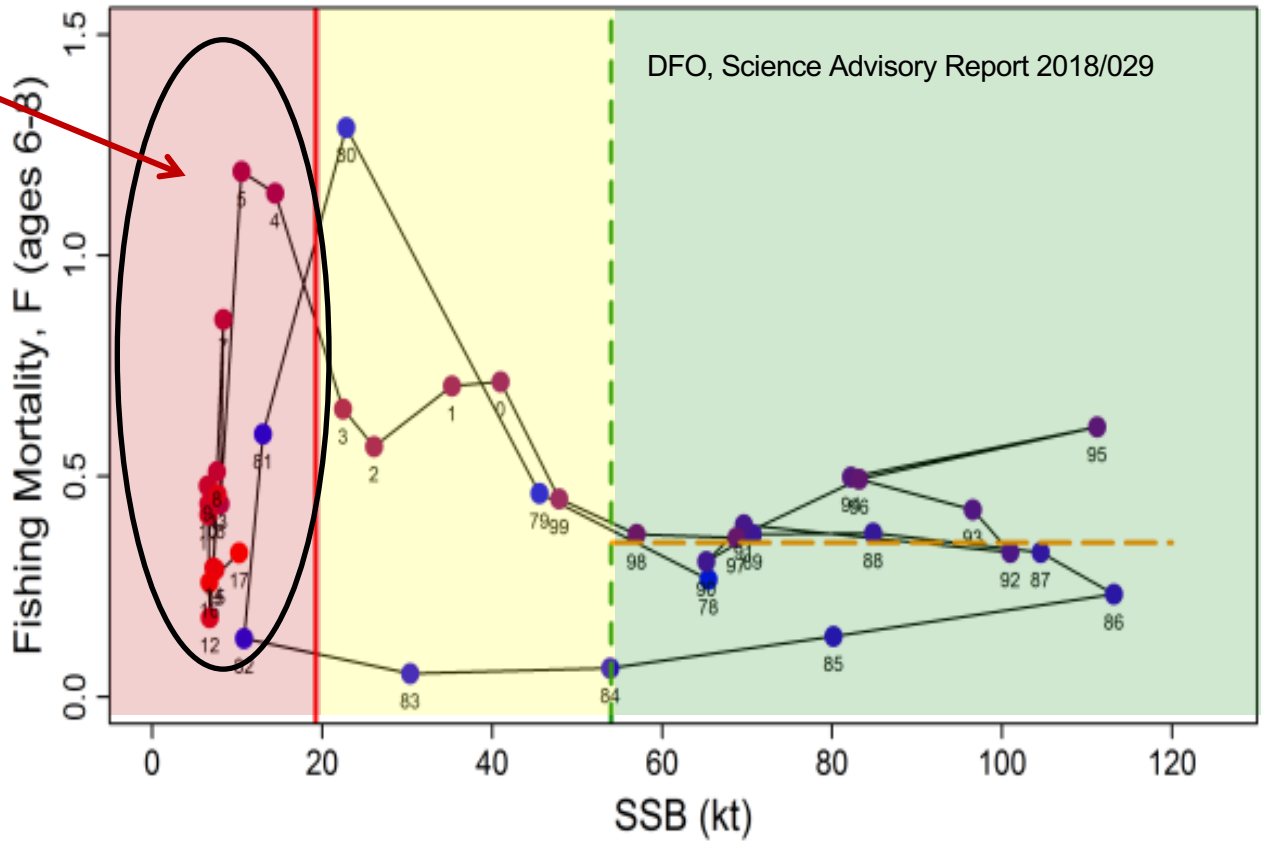
[Minister has the] Authority to develop regulations respecting the rebuilding of fish stocks

Context (Stock Status)

Herring spring spawner component has been near or in the critical zone since 2004, and is considered a candidate for listing in the regulation.

Weight-at-age of herring has declined and remains at near record low levels

Herring catches from the bait fisheries are presently not accounted for in the assessments



SSB = Spawning Stock Biomass, LPR = Limit Reference Point

Canada

What is a rebuilding plan?

The purpose of a rebuilding plan is to identify:

- the main objectives and requirements for rebuilding the spring component of the Atlantic herring in NAFO Division 4T,
- management measures that will have to be used to achieve these objectives.

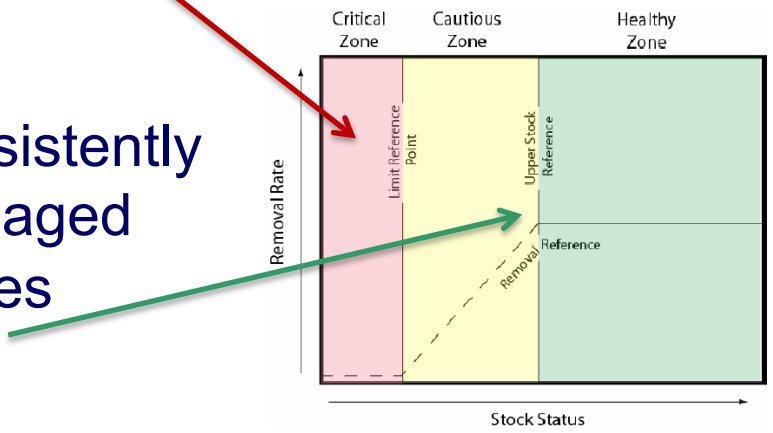
This document also serves to communicate the basic information on the stock status, its importance from a socio-economic context, and its management.

This plan provides a common understanding of the basic “rules” and expectations for rebuilding a fish stock.

What is a rebuilding plan?

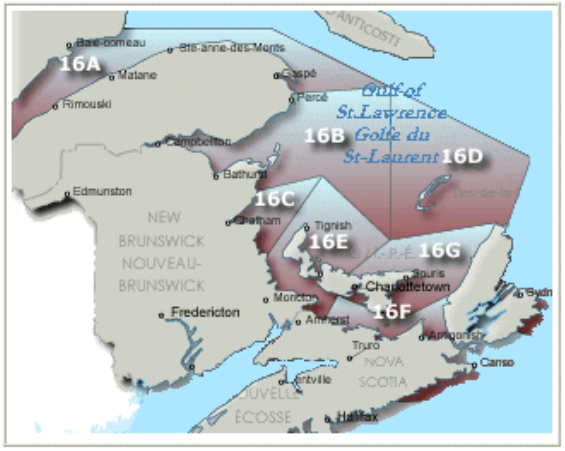
The objectives and management measures outlined in a rebuilding plan are applicable as long as the stock is below or at the LRP (near of in the critical zone).

Once the stock grows and remains consistently above the LRP, the stock(s) will be managed through the standard Integrated Fisheries Management Plan (IFMP) process.



Management measures outlined in a rebuilding plan are mandatory and may be modified to include additional catch restrictions if they fail to result in stock rebuilding.

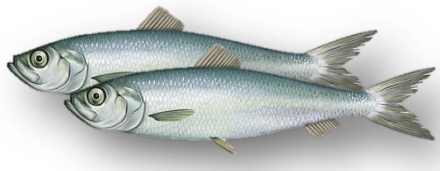
The fishery



- 7 herring fishing areas within NAFO Div. 4T
- Two (2) fishing seasons; spring (April to July), and fall (August to mid-October).
- 2 distinct stocks: spring and fall spawner components.

Spring and fall spawner components are assessed separately and their biomass estimates are used to set separate Total Allowable Catches (TAC) for the spring and fall season fisheries.

The spring spawner component is the candidate for a rebuilding plan, not the fall component.



The fishery

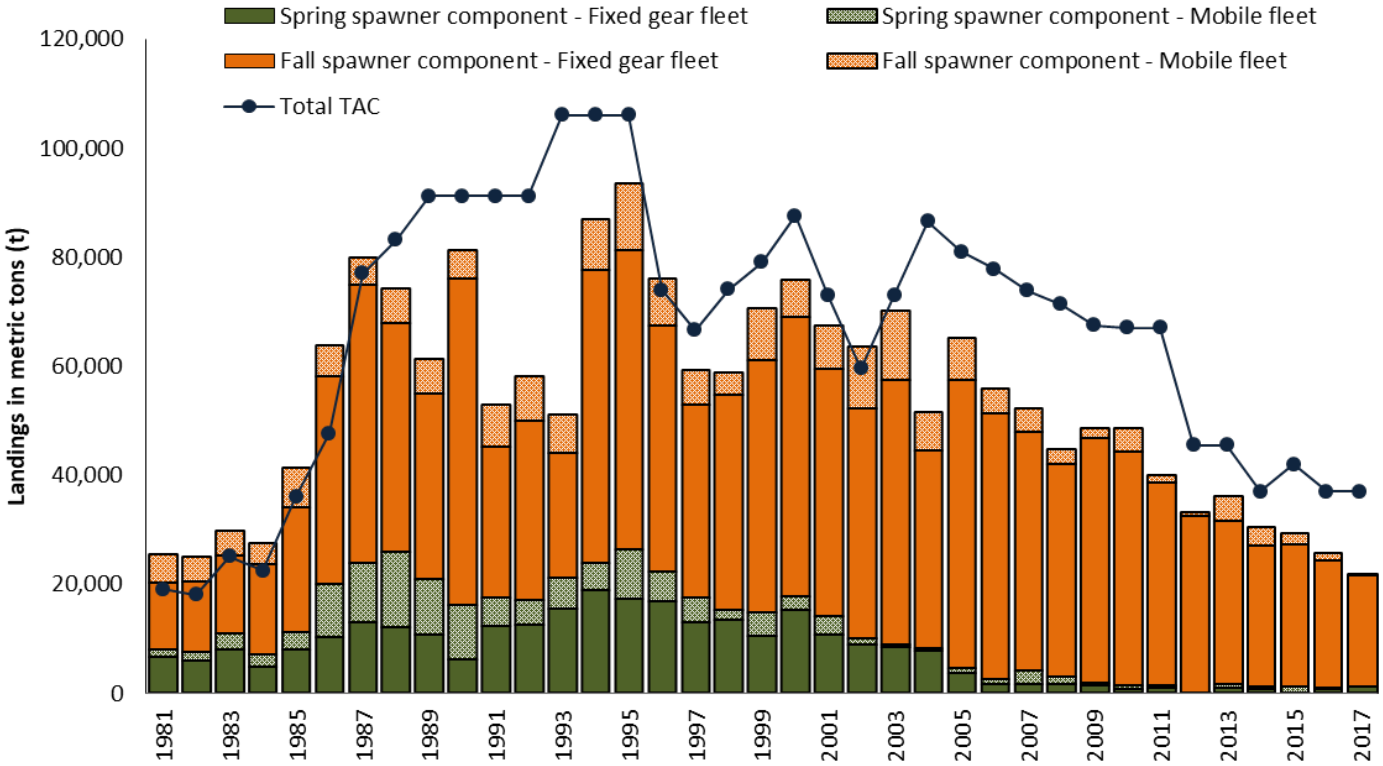
Herring are harvested by a gillnet fleet (referred to as “fixed” gear fleet) and a purse seine fleet (“mobile” gear fleet).

Type of herring fishing licences (average for 2017 and 2018)	Number of licences[1]	Estimated annual number of active licences[1]
Fixed gear (gillnets)	2,348	710
Mobile gear (small seiners; < 19.8 m)	6	1
Mobile gear (large seiners; > 19.8 m)	5	1
Personal bait fishery	2,340 [2]	unknown

1 - Spring and fall fisheries combined.
2 - Of that number, 55% (1,292 licences) are issued to harvesters which already have a commercial herring fishing licence.

The latent capacity and the 2,340 bait licenses for personal use pose a significant risk to the sustainability of the spring spawner stock and long term viability of the fishery.

The fishery (spring and fall seasons combined)



Fall spawners represented 59% to 98% of the total landings in the sGSL.

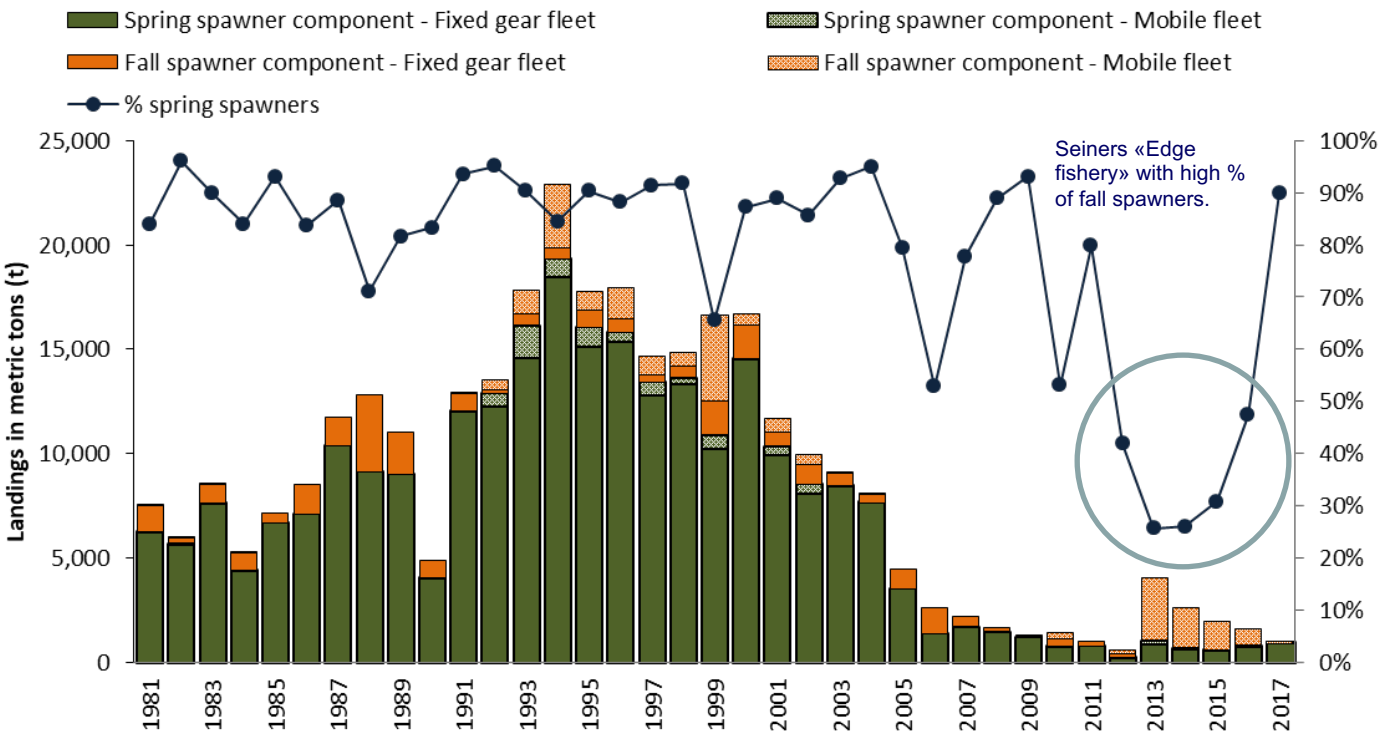
Total landings have generally been less than the TAC since 1988.

Total allowable catches (TAC) and landings of the spring and fall spawner components of Atlantic Herring in the southern Gulf of St. Lawrence (sGSL), from 1981 to 2017.

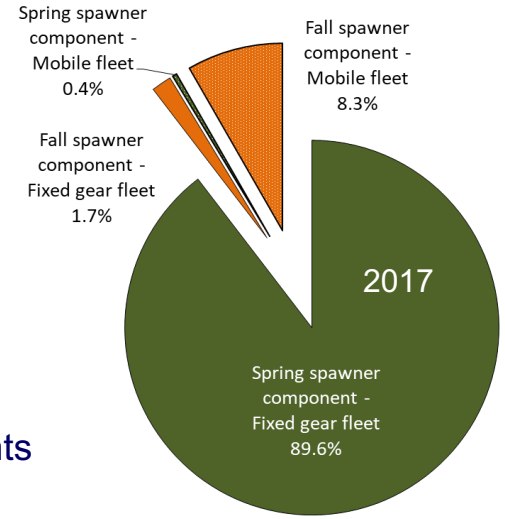
Both types of spawners are caught during the two fishing seasons.

The fishery (spring season only)

Spring fishing season



Percentage of spring spawners caught during the spring fishing season is highly variable from year to year (ranging 26% to 90%).

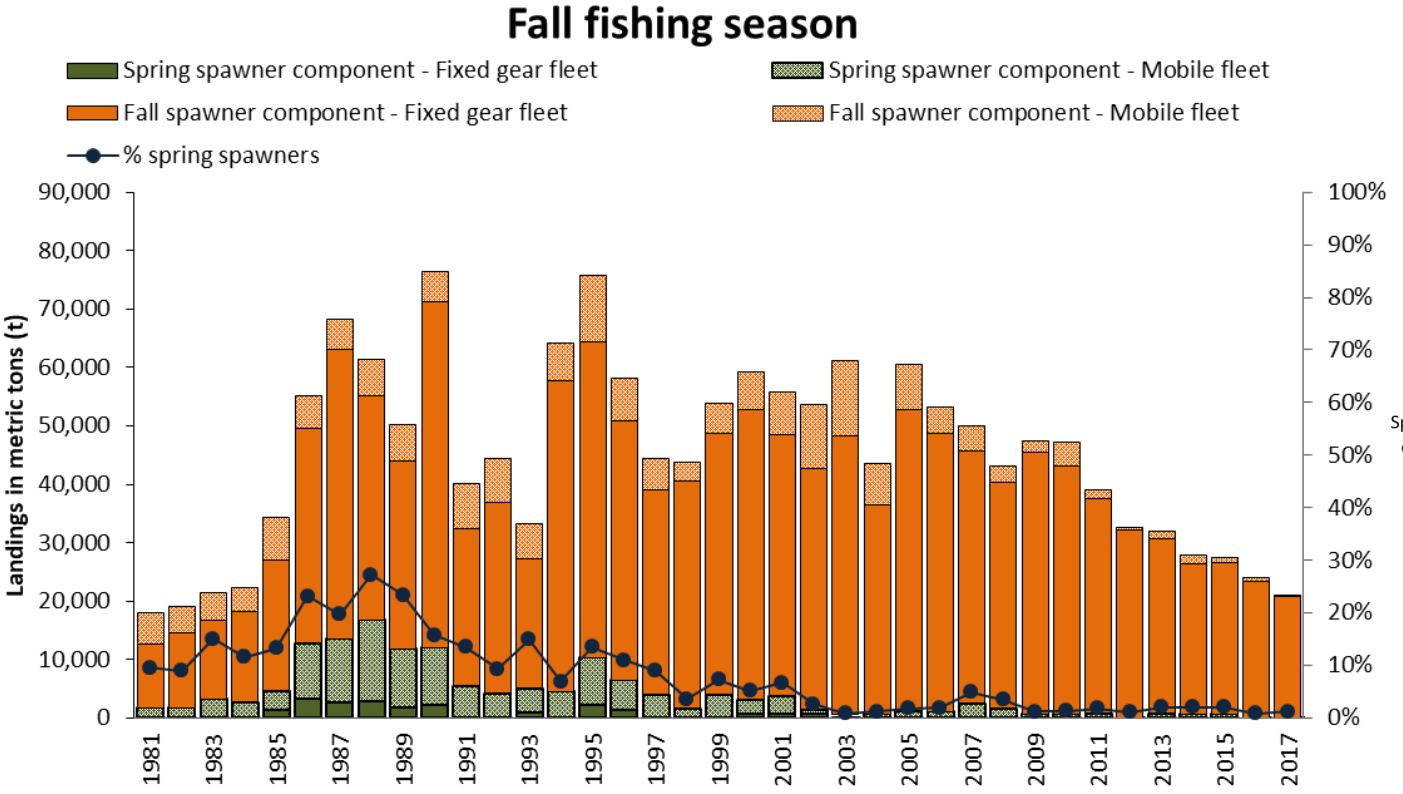


Atlantic Herring landings from the spring fishing season and by spawner components in the southern Gulf of St. Lawrence (sGSL), from 1981 to 2017.

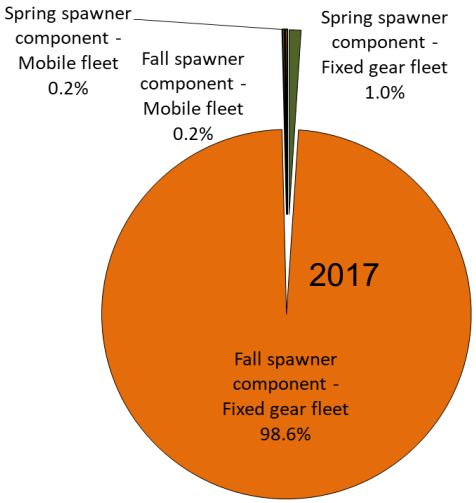
Canada

Both types of spawners are caught during the two fishing seasons.

The fishery (fall season only)



Fall fishing season characterized by a low percentage of spring spawner component caught, ranging from 1% to 5%.



Atlantic Herring landings from the fall fishing season and by spawner components in the southern Gulf of St. Lawrence (sGSL), from 1981 to 2017.

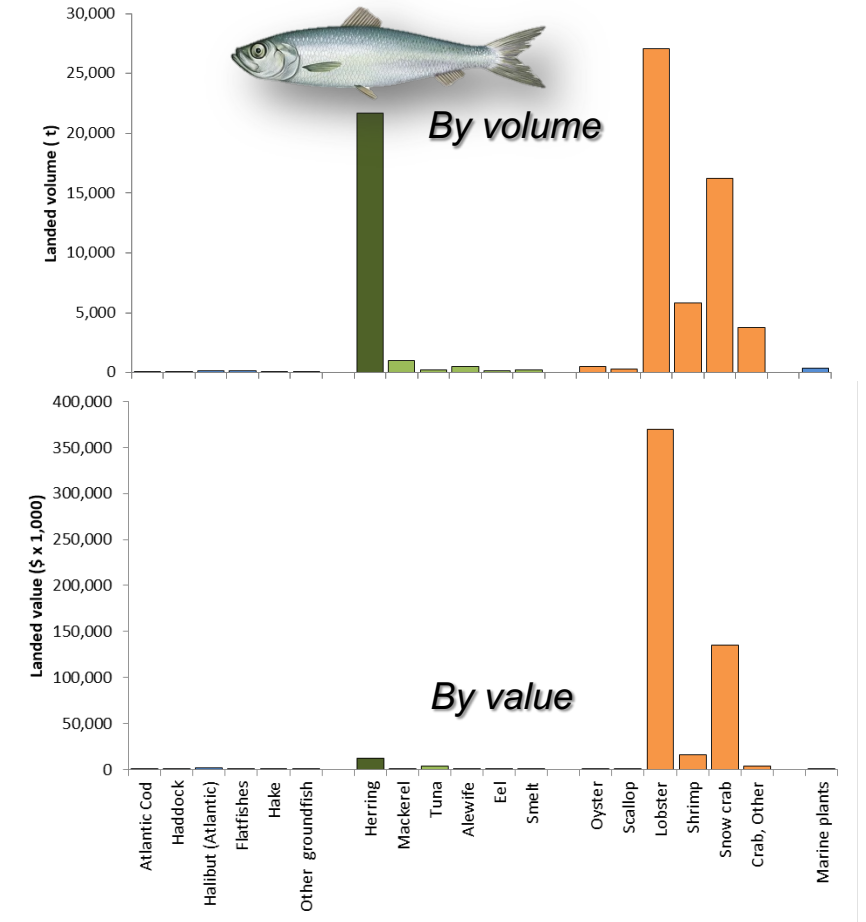
Canada

Socio-economic and cultural importance

In 2016, herring catches represented more than a quarter (27.1%) of all species landed in the sGSL of which only 1.7% came from the spring fishing season.

Herring in the sGSL represented 3.1% of the total landed value of fish and was one of the lowest priced species at $0.59/kg in 2016.

Landed value of the spring season fishery was estimated at $968,000 and $615,000 in 2016 and 2017 respectively.



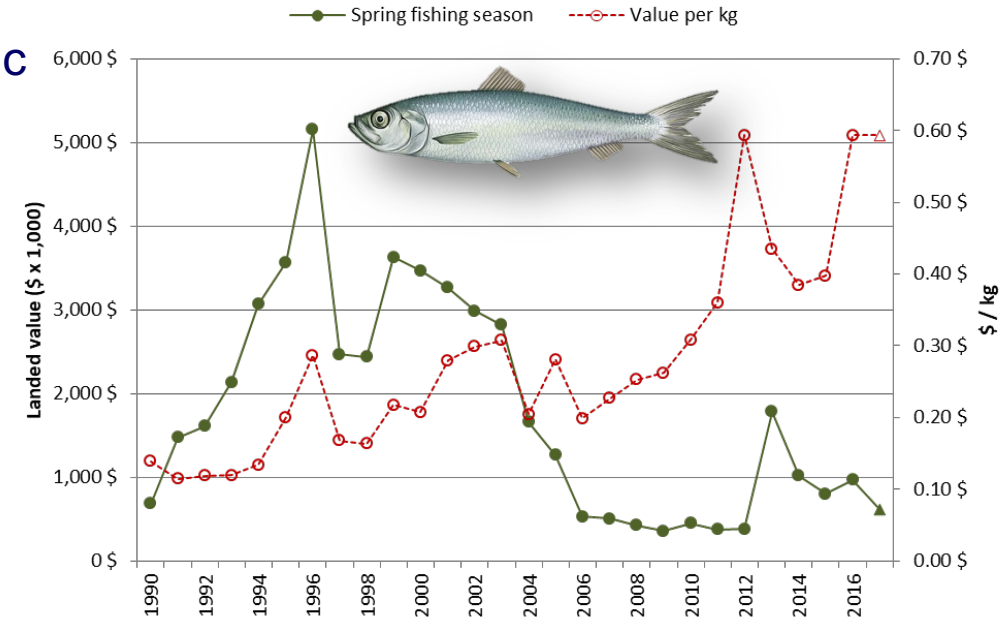
Canada

Socio-economic and cultural importance

Herring is economically important to coastal communities in terms of secondary processing like fish meal, fish oil and smoked herring.

Herring provides an important economic contribution to many complementary fisheries.

As one of the major sources for bait, herring contribute significantly to the reduction of costs for lobster, snow crab and tuna harvesters. This is especially the case for the spring season fishery which is known to be an important supplier to the local bait market.



But the herring spring fishing season is a small contributor to the overall herring supply.

Management issues

Compliance and accounting for all fishing mortality: Catch monitoring and mandatory reporting in the Atlantic herring fishery still require improvements. Although a logbook is a condition with a bait license, few logbooks are returned.

Allocation of TAC: A more flexible spatial sharing of the TAC may be required to avoid potential localized depletions or to protect some productive sectors (ex.: no fishing zones).

Managing fishing seasons, fishing fleets and spawner components: Since the 2 spawning components are known to overlap in time and space, and can be caught in both fishing seasons, and by both fishing fleets. The management measures in place are complex and, prone to reporting issues and wastes.

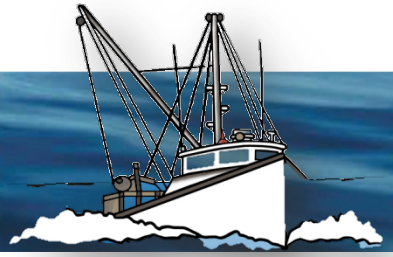
Management issues

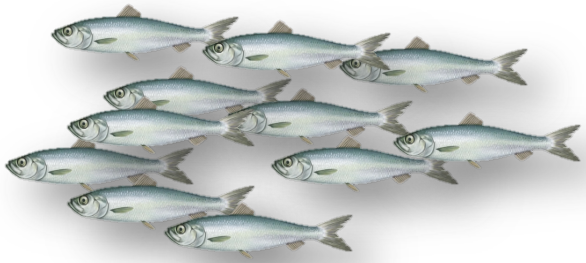
Natural mortality: Herring is a food source for many species in the ecosystem: it is a forage species. However, as for many pelagic and groundfish species, predation on the herring stock has been increasing for decades. The gray seal has been identified as a significant predator for many fish species, including herring. Tuna is also known as a significant predator for herring.

Climate change and direct human impacts on ecosystems: The physical and biological shifts climate change brings, along with more direct human impacts (ex: agriculture practices, dredging, coastal developments, etc), are modifying marine ecosystems in many ways, which often cannot be effectively monitored and quantified. Since herrings are spawning in shallow coastal areas, these populations may be impacted by theses changes.

The decline in spring herring recruitment is explained by long-term changes in the composition of its food source, the cold-water zooplankton species. With the increasing abundance warm water zooplankton, and given the trend toward warmer conditions, prospects for recovery of the spring-spawning component are expected to remain poor.

Consultation process





The purpose of this document is to engage discussions with First Nations and harvesters on ways to address the drastic decline of the herring spring spawner component, in accordance with the renewed Fisheries Act.

A consultation workbook was designed to facilitate and guide the discussion on key management measures that could be used in developing a rebuilding plan for herring spring spawners. These management measures could be used individually or combined, depending on the objective, efficiency and feasibility of the rebuilding plan.

Your input is important and we look forward to hearing your thoughts on the topics presented.

For more information on the new Fisheries Act: https://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/introduction-eng.html
For more information on the rebuilding plan process: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/precautionary-precaution-eng.htm