



Photo credit: Kristen Milbury

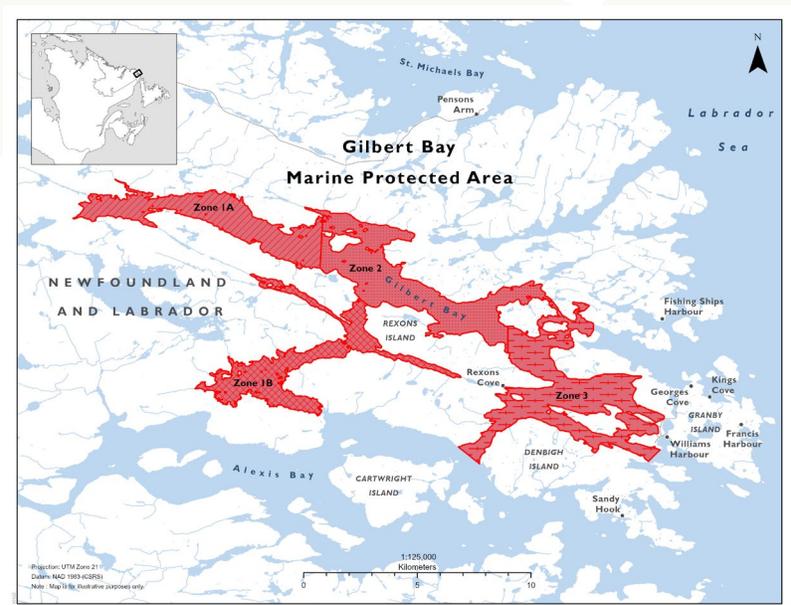
2023

ANNUAL REPORT

| Gilbert Bay
| Marine Protected Area

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At-a-glance

Date of designation:

2005

Size:

60 km²

Contribution towards the marine conservation targets:

< 0.01%

Location:

This MPA is located on the southeast coast of Labrador, within the Newfoundland and Labrador (NL) Bioregion; Atlantic Ocean.

Managed by:

Fisheries and Oceans Canada (DFO), currently working towards co-management with the NunatuKavut Community Council (NCC)

Zones:

There are 3 management zones, including:

- Zone 1 (28.7 km²) contains 2 shallow areas in the upper reaches of the bay (1A and 1B). These are critical areas for cod and for migrating salmon, char and trout, and they house pristine maerl beds.
- Zone 2 (11.9 km²) is a smaller but important area that cod use for spawning, feeding and migrating between the outer part of the bay in the summer and the inner part in the fall.
- Zone 3 (19.5 km²) covers the area from the coastal low water mark seaward to where Gilbert Bay meets the Labrador Sea. It is an important feeding area for mature cod and diversity of fin fish species is highest in this zone.



Key highlights

In 2023, the main highlight for the Gilbert Bay MPA was the re-establishment of relationships between DFO and the NunatuKavut Community Council (NCC). This relationship building was essential after the COVID-19 pandemic and key personnel changes on both sides. To achieve this, several management meetings were held in-person in Goose Bay, Labrador and St. John's, NL to partner on ongoing and emerging issues that the MPA faces. Many important topics were discussed, such as the:

- steps toward formalizing co-management
- focus on a shortened management cycle (2023 to 2026) to achieve these goals in the near future
- expansion of the ecological monitoring program to incorporate environmental and oceanographic conditions of Gilbert Bay

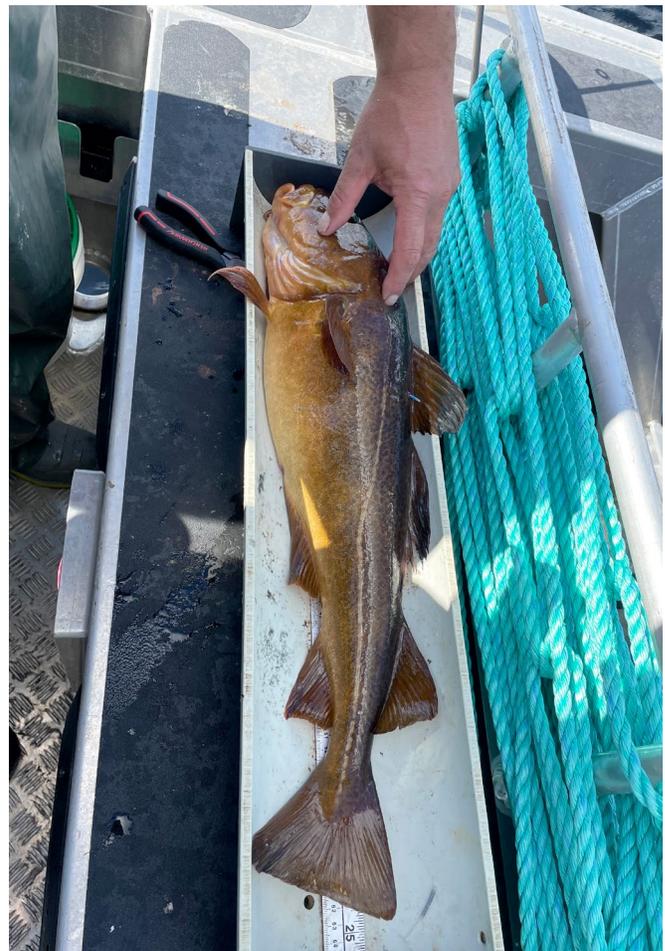


Photo credit: NunatuKavut Community Council



In the spotlight: benefits

Ecological	Socio-cultural	Economic
<p>The Gilbert Bay MPA provides long-term protection of the Gilbert Bay cod and its habitats. Gilbert Bay cod are a unique resident population of Atlantic cod, characterized by significant differences in the genetics, behavior and physiology compared to other northern cod populations.</p> <p>The Gilbert Bay MPA also protects a variety of marine organisms and plants, and a wide range of other marine species including:</p> <ul style="list-style-type: none"> • shellfish • demersal fish • pelagic fish • waterfowl • marine mammals 	<p>The preservation of Gilbert Bay and Golden cod is very important to the people of NunatuKavut. Community members carry out traditional activities in and around the Gilbert Bay MPA, although there are no longer any permanent residents living adjacent to Gilbert Bay itself. The NCC has been an active participant in the MPA since the beginning. NCC has participated in the Aboriginal Fisheries Guardian Program with the employment of 4, full-time, year-round guardians. This program continues to grow in delivery and service throughout NunatuKavut communities, including a continued presence in the Gilbert Bay MPA.</p>	<p>The Gilbert Bay MPA provides economic benefits for the area and for the people of NunatuKavut. In recent years, local harvesters have been compensated for participating in monitoring and research projects in the MPA and adjacent areas, such as the cod pot pilot program. Also, to support surveillance and enforcement of the MPA regulations, NCC has participated in the Aboriginal Fisheries Guardian Program, employing several guardians. Building this Indigenous capacity is critical to Gilbert Bay MPA management and has increased the effectiveness of incorporating Indigenous Traditional Knowledge into Fisheries Management Strategies over the long term.</p>



Education and outreach

From 2019 to 2022, the NCC partnered with the World Wildlife Fund-Canada and the Marine Institute of Memorial University to mitigate the impacts of fishing on vulnerable species in the MPA through the location and retrieval of ghost gear. The goal of this project was to reduce fishing mortality of Golden cod by reducing ghost gear catch and by-catch within the MPA. NCC held an artist-led craft workshop on the coast using ghost gear retrieved from this project. Crafts included:

- macramé style plant holders
- rope coasters
- jewelry and more

As a result, in addition to the direct benefits of removing debris from the marine ecosystem, there is now an increase in community awareness of the Gilbert Bay MPA and Golden cod. This initiative helped NCC gain equipment, experience and resources, furthering their ability to become ambassadors and leaders for reporting and retrieving ghost gear within NunatuKavut waters.



Photo credit: Curtis Pennell



Photo credit: Kristen Milbury



Research and monitoring

The ecological science monitoring program in Gilbert Bay MPA is ongoing since 1998, led by Dr. Corey Morris, DFO. The monitoring program has found that both the number and size of Gilbert Bay Golden cod captured in the spring angling survey has declined since 2006. Lower densities of cod eggs were sampled during spawning periods since 2013 compared to previous years. Changes in species composition were noted during spring angling, where once Golden cod were dominantly captured, now sculpin, flounder and Rock cod are caught more often.

Furthermore, in analyzing annual tagging data, the population is estimated to be less than 10% of what it was when the MPA was initially established. Additional research on population growth and abundance is ongoing, using all available data including:

- mark-recapture data
- catch rate information
- length and frequency analysis
- telemetry

From 2022 to 2023, to further support monitoring of the Gilbert Bay ecosystem as a whole, an emphasis was placed on establishing a remote MPA monitoring station. This remote station uses sensors to collect data, such as water temperature and weather conditions, and is able to share data with DFO scientists in real-time.

In September 2023, various experts from DFO, the NCC, the Province of NL, academia, and others participated in a CSAS peer-review to update the “Status and Trends of Atlantic Cod ('Golden Cod') in the Gilbert Bay MPA”.



Collaborations and partnerships

The community-based Advisory Committee is co-chaired by NCC and DFO, and it continues to be actively involved in the monitoring and management of the MPA. The Advisory Committee ensures that the interests of all users are considered.

As a step further, NCC and DFO are working towards formalizing co-management of the Gilbert Bay MPA over the period of this management cycle. Under this strategic partnership, management strategies and actions have been identified to help ensure that MPA conservation objectives are achieved. The regulatory conservation objectives will remain the responsibility of DFO, while the non-regulatory conservation objectives will be pursued by community partnerships initiated by NCC and the Advisory Committee with support from DFO as appropriate. By working together, DFO and NCC, with support from the Committee, can continue to explore opportunities to help protect Gilbert Bay cod and its ecosystem, while providing benefits to local residents.



Photo credit: George Morris



Surveillance and enforcement

DFO Conservation and Protection officers and NunatuKavut Aboriginal Fishery Guardians conduct surveillance and enforcement patrols by boat, snow mobile and aircraft, occasionally assisted by provincial conservation officers.

Since 2007, DFO has conducted extra patrols within the MPA during critical periods. These periods were identified as:

- the summer months when:
 - commercial and recreational Atlantic cod fisheries are permitted in the areas surrounding the MPA
 - the Aboriginal gillnet fishery for trout is permitted in Zones 2 and 3 of the MPA
- the fall season (September to November) when the MPA may be susceptible to illegal fishing activities due to the reduced presence of licensed fish harvesters

In 2023, there were 15 directed patrols to the MPA:

- 7 by vessel
- 4 by snowmobile
- 3 by fixed-wing aircraft
- 1 by helicopter

There were 2 violations detected, with further investigation underway.



Management and governance

In 2023, the third iteration of the Gilbert Bay management plan was finalized and approved for publishing. A 3-year management cycle (2023 to 2026) provides the Advisory Committee the ability to adapt to a dynamic environment and to address management concerns in the short-term. The NCC has taken a greater role in the management of the Gilbert Bay MPA on behalf of its members. The NCC co-chair the Advisory Committee and are moving toward co-management of the MPA over the term of the management cycle.

Management meetings between NCC and DFO were held in Goose Bay, Labrador in November 2022 and November 2023, and in St. John's, NL in April 2023. The meetings were to discuss short-term priorities and next steps toward formalizing co-management.

In 2023, the NCC received funding through the Oceans Management Contribution Program to advance the protection, conservation and management of Gilbert Bay cod. The objectives of this project, to be carried out from 2023 to 2026, will focus on monitoring and stewardship of the MPA and capacity building to enhance NCC's capacity to participate effectively as a partner with DFO in the management of Gilbert Bay MPA.



Photo credit: NunatuKavut Community Council

Looking to the year ahead

In 2024, the areas of focus for Gilbert Bay MPA will be:

- working towards co-management of the MPA
- implementing the newly published management plan

Within the management plan, the main objectives for this management cycle are to:

1. rebuild trust and improve engagement with local community members
2. expand the scope of the monitoring program and involve local harvesters and NCC staff
3. explore adaptive management strategies in response to Science advice

To achieve this, the Advisory Committee will work to develop a communications approach to ensure that information is passed to local community members and others involved in the MPA.



Photo credit: NunatuKavut Community Council



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