



Photo credit: H. Moors-Murphy

2023

ANNUAL REPORT

| St. Anns Bank
| Marine Protected Area



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At-a-glance

Date of designation:

2017

Size:

4,364 km²

Contribution towards the marine conservation targets:

0.08%

Location:

This MPA is located East of Cape Breton Island, Nova Scotia (NS) in the Scotian Shelf Bioregion; Atlantic Ocean.

Managed by:

Fisheries and Oceans Canada (DFO)

Acknowledgement:

St. Anns Bank is located in Unama'ki, a district of Mi'kma'ki, the unceded ancestral territory of the Mi'kmaq.

Zones:

There are 4 management zones, including a core protection zone of minimal human activity (Zone 1) and three adaptive management zones (Zone 2, 3, and 4) where, low-impact activities may be permitted.



Key highlights

After several years in the making, the [St. Anns Bank management plan](#) was finalized and approved for publication in December 2023. The management plan was developed in collaboration with the St. Anns Bank Advisory Committee, which includes members from:

- the Mi'kmaq of Nova Scotia
- academia
- environmental non-governmental organizations (eNGOs)
- federal and provincial government departments
- Indigenous organizations
- members of the fishing industry
- other marine users



Photo credit: DFO Newfoundland

DFO and the Mi'kmaq of Nova Scotia continue to work together to establish a partnership for future governance and management of the MPA through a working group.

Poor weather and rough seas in 2023 made it challenging for science teams to set sail and conduct fieldwork in the MPA. Nevertheless, several research and monitoring projects were conducted in the MPA during the year.

In 2023, 2 large commercial vessels, Bulk Carrier Genco Endeavour and Tanker Patrona I, were grounded in the MPA for several days due to engine malfunctions. Both events were closely monitored, and no incidents or spills were associated with these occurrences.



In the spotlight: benefits

Ecological

Located on the inner eastern Scotian Shelf, the MPA is comprised of a wide variety of habitat types ranging from the shallows of Scatarie Bank to the depths of the Laurentian Channel. St. Anns Bank is a part of a key migration corridor for marine mammals and fish that travel in and out of the Gulf of St. Lawrence. The MPA provides habitat for several commercial (e.g. halibut) and non-commercial species (e.g. sea pens and sponges), as well as several threatened, endangered and depleted species, such as:

- Atlantic wolffish
- Atlantic cod
- Redfish
- White hake
- American plaice

Socio-cultural

The Mi'kmaq of Nova Scotia were the first people who inhabited and utilized the area that is now known as St. Anns Bank. Since time immemorial the Mi'kmaq have fished in the waters here and the area remains a culturally important resource, including a source of food. Additionally, Mi'kmaq fishing activities in coastal Unama'ki support the well-being of Mi'kmaq communities.

Economic

The reported landings of commercial fisheries in St. Anns Bank MPA include groundfish and snow crab.

Mi'kmaq fishing activities in coastal Unama'ki generate important revenue for Mi'kmaq communities.

Non-Indigenous commercial fisheries on and around St. Anns Bank have also been occurring for centuries starting in the 1500s when Portuguese, Spanish, French and British fishing vessels visited for the summer season groundfish fishery, and subsequently established permanent fishing communities at Canso and elsewhere along the coast of NS.



Education and outreach

In February 2023, St. Anns Bank MPA was featured in a presentation during the International Marine Protected Areas Congress ([IMPACS](#)) conference in Vancouver.

In October 2023, the MPA was also featured during the [Marine Mammal Twinning Partners Workshop](#) (EU Ocean Governance Project) hosted in Stellwagen Bank National Marine Sanctuary (U.S).

The Fisheries Museum of the Atlantic in Lunenburg, NS, has a new panel that profiles St. Anns Bank MPA and its marine biodiversity.

Several pieces of artwork were commissioned for the St. Anns Bank management plan, including

the cover art by Loretta Gould, a Mi'kmaq artist, and species paintings by Molly Wells, a science illustrator.

St. Anns Bank was also featured on the Clocean Podcast – Wta'n: Our living ocean (by the Maritimes Aboriginal Peoples Council) in an episode on MPAs.



Photo credit: A. McFarland



Research and monitoring

Despite challenging weather conditions in St. Anns Bank for most of 2023, a number of research activities were successfully conducted in the MPA.

Over the summer, DFO scientists sailed into the MPA to retrieve and deploy several passive acoustic monitoring buoys. Using passive acoustic monitoring, researchers monitor year-round the occurrence of cetacean species and anthropogenic noise sources in and around the MPA.

In August 2023, a team of DFO researchers conducted environmental DNA (eDNA) sampling in several areas of the MPA. This type of sampling is a non-invasive method used to monitor biodiversity, where water is sampled and analyzed to extract and sequence free-floating DNA from water. In this project, eDNA is used to evaluate fish and invertebrate diversity to support long-term biodiversity monitoring in St. Anns Bank.

In 2023, several fisheries surveys took place including:

- the multi-year DFO snow crab survey
- the ecosystem trawl survey conducted by DFO
- the joint Industry and DFO Halibut Longline Survey

In September 2023, oceanographic data was collected in the MPA through the DFO Atlantic Zone Monitoring Program (AZMP).



Photo credit: P. Lawton and K. Phelan

After several attempts to sail into St. Anns Bank due to poor weather, Cape Breton University successfully deployed a mooring system with several autonomous reef monitoring structures on Scatarie Bank in late December. The objective of this study is to test the feasibility of a popular benthic recruitment sampling device (ARMS) and analytical tools, such as, eDNA metabarcoding, for characterizing and monitoring hard bottom benthic marine communities within the St. Anns Bank MPA. The research team aims to evaluate the potential for widespread use of ARMS as a tool for monitoring the effectiveness of MPAs in eastern Canada.



Photo credit: B. Zisseron



Collaborations and partnerships

The DFO-Mi'kmaq St. Anns Bank co-governance working group was established in 2022 to create a forum to discuss management issues and enhance Mi'kmaq collaboration associated with St. Anns Bank MPA.

The Cape Breton Fish Harvesters Association (CBFHA) and DFO have an ongoing partnership to conduct several scientific monitoring projects in the MPA. Through this partnership, DFO provides resources to CBFHA for research activities and capacity building to build on local expertise and knowledge from fishers in the area.

In 2019, the Ocean Tracking Network, DFO and fishing industry began a 3-way partnership to track fish and invertebrates movement using acoustic telemetry. This ongoing partnership and data collection has helped begin to answer questions about the movement patterns of snow crab and demersal fish, such as, halibut, tagged in the MPA.



Surveillance and enforcement

Surveillance and enforcement in St. Anns Bank MPA is carried out by Conservation and Protection through vessel patrols, aerial surveillance and remote surveillance tools including vessel monitoring system.

In 2023, 1 to 2 aerial patrols were conducted every week. The MPA was patrolled aerially by offshore fishery officers for 94.5 hours in total.

While conducting patrols, several violations were observed. Offshore fishery officers dealt with boundary incursions observed from aerial platforms.

In 2023, there was one violation for illegal fishing activity in Zone 1 of the MPA.

The Conservation and Protection Branch also undertakes outreach efforts. For example, officers participate in several regional recreation shows, such as the Sports and RV Show in Halifax to promote compliance and answer questions from the public.



Photo credit: H. Moors-Murphy



Management and governance

The St. Anns Bank Advisory Committee hybrid meeting took place on June 29, 2023, in Unama'ki. The meeting covered:

- committee member updates
- education and outreach initiatives
- national and regional DFO updates
- plans and priorities for the MPA in 2023 to 2024
- research activities

In December 2023, the [St. Anns Bank management plan](#) was published. The management plan was developed in collaboration with the Mi'kmaq, with input and review from St. Anns Bank advisory committee members. The plan supports the MPA regulations and provides guidance on achieving the conservation goals for the St. Anns Bank MPA. The plan provides guidance to:

- DFO
- marine users
- the public
- other regulators

This plan will also serve as the long-term framework upon which more detailed or additional operational plans for the MPA can be developed to address specific issues (e.g., enforcement, monitoring and emergencies).



Artwork credit: Loretta Gould This a painting by Loretta Gould, a Mi'kmaq artist from the Waycobah First Nation in Unama'ki. The painting represents St. Anns Bank and the species that use the area, the energetic nature of the site, and the human connection to the MPA.

Note: This artwork is closely tied to St. Anns Bank, please refrain from using it beyond this annual report

The DFO-Mi'kmaq St. Anns Bank co-governance working group met 3 times in 2023 to discuss ongoing MPA management and monitoring. In November 2022, the working group attended a 2-day, in-person workshop in Unama'ki that consisted of presentations, discussions and relationship-building activities such as traditional beading.

In 2023, a total of 7 activity plans were approved to conduct research in St. Anns Bank MPA. The research activities were comprised of benthic monitoring, eDNA monitoring and fisheries research, with projects led by several DFO science teams, universities and fishing associations.

Looking to the year ahead

DFO's Canadian Science Advisory Secretariat will be conducting a regional peer review process on the Review of St. Anns Bank Monitoring: Selected Research Activities, Indicators, and Guidance on Next Steps.

Following this, a workshop will be held on additional monitoring and research initiatives in St. Anns Bank, with presentations and discussions from within and external to DFO on:

- knowledge
- information
- ongoing data streams

The St. Anns Bank management team will begin to implement the management plan and continue advancing local partnerships and continue working towards a co-governance arrangement with the Mi'kmaq. In addition, the St. Anns Bank Advisory Committee meeting will be held in the fall.



Photo credit: P. Lawton and K. Phelan



Published by:

Fisheries and Oceans Canada, Ottawa, Ontario K1A 0E6

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Cat. No. Fs1-106E-PDF ISSN 2818-7067

Correct citation for this publication:

Fisheries and Oceans Canada. 2025. St. Anns Bank Marine Protected Area (MPA) annual report 2023. Annual report. St. Anns Bank Marine Protected Area. 8 p.