Photo credit: Multi-Year Ice 2018 DFO Coupel

2023

ANNUAL REPORT

Tuvaijuittuq
Marine Protected Area

Fisheries and Oceans Canada
Pêches et Océans Canada

Canada

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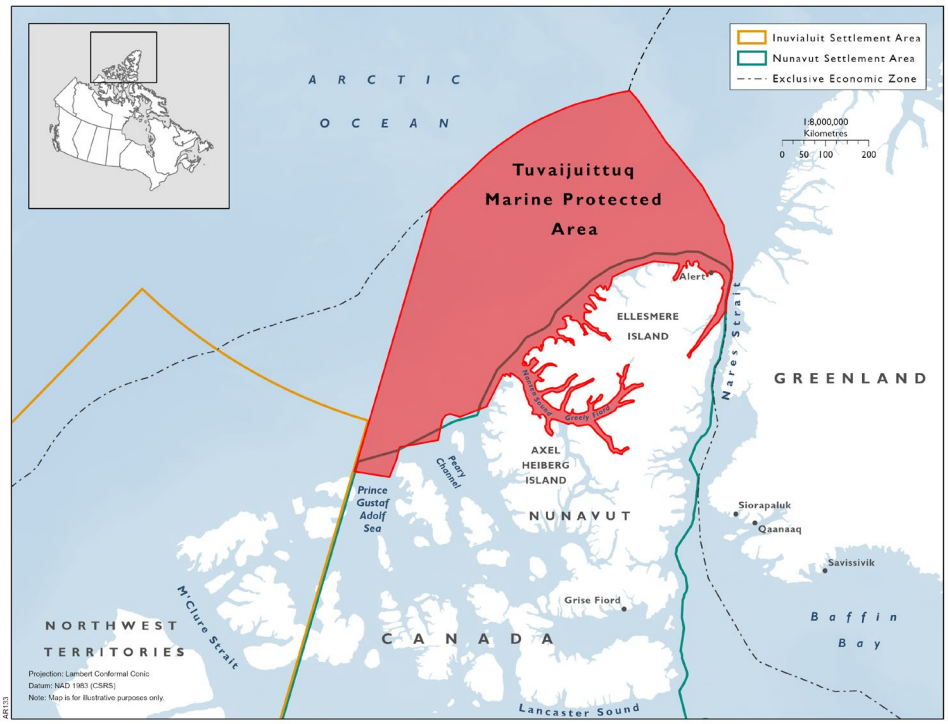

At-a-glance

Date of designation:
2019

Size:
319,411 km²

Contribution towards the marine conservation targets:
5.55%

Location:
This MPA is northwest of Ellesmere Island, Nunavut; and it overlaps both the Arctic Basin and Arctic Archipelago bioregions in the Arctic Ocean.

Co-managed by:
This MPA is co-managed by the Aulattiqatigiit Board, with representatives from:

- Qikiqtani Inuit Association
- Fisheries and Oceans Canada (DFO)
- Parks Canada (PC)
- Transport Canada (TC)

Acknowledgement:
The Tuvaijuittuq MPA is partially located within the Nunavut Settlement Area and the Nunavut Land Claim Agreement (Nunavut Agreement) applies.

Zones:
There are no management zones within Tuvaijuittuq MPA, and Ministerial Order regulations apply throughout the area.

Key highlights

In March 2023, the Qikiqtani Inuit Association and the Government of Canada agreed to pursue a process to repeal the current Ministerial Order MPA in Tuvaijuittuq and replace it with a new Order to help recover the time lost due to the COVID-19 pandemic and to collaboratively explore an Inuit-led Protected and Conserved Area (IPCA). Negotiations related to an IPCA approach are ongoing. Parties to the High Arctic Basin Memorandum of Understanding (MoU) undertook community and stakeholder consultations in 2023 and are currently advancing the regulatory process.

Research in Tuvaijuittuq is led by the ArcticCORE program which includes ship-, ice- and aerial-based research as well as long-term observations (e.g., moorings, community-based observations/ monitoring). This program aims to build on existing research to address knowledge gaps to inform decisions around long-term protection of the area.

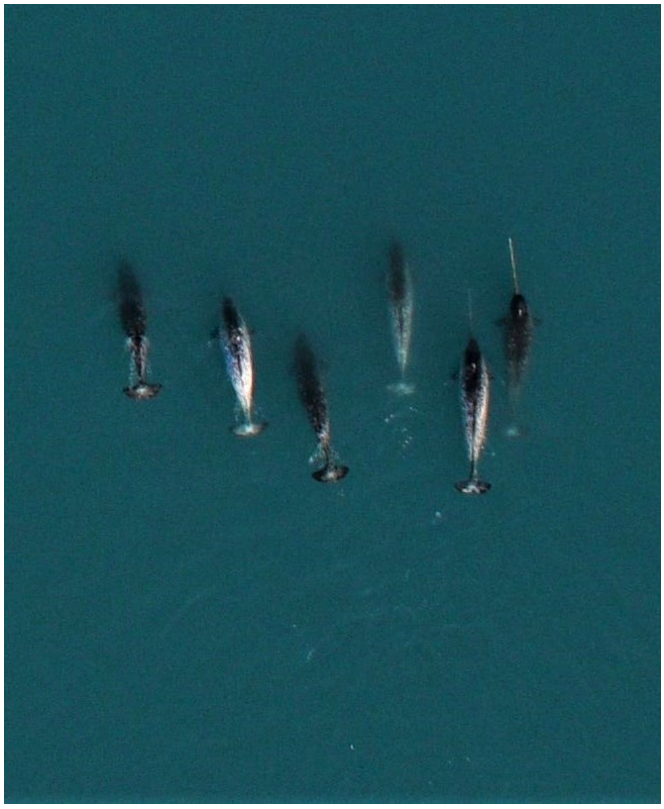

Photo credit: Carlye and Florko

In the spotlight: benefits

Ecological	Socio-cultural	Economic
Tuvaijuittuq MPA has the oldest and thickest sea ice in the Arctic Ocean, and as sea ice continues to decline, this ice is expected to last the longest. Since this MPA prohibits additional activities that may exacerbate the impacts of climate change, primarily the loss and/or disruption of multi-year pack ice, it is expected to become a critical refuge for ice-dependent species as sea ice continues to decline across the Arctic. This makes the area a unique and potentially important future summer habitat for ice-dependent species, including walrus, seals and polar bears.	Tuvaijuittuq has great cultural significance, and has been used historically by Inuit for travel and harvesting. Tuvaijuittuq MPA is covered under the 2019 Tallurutiup Imanga National Marine Conservation Area Inuit Impact and Benefit Agreement (IIBA). This IIBA provides funding to implement meaningful job creation in the 5 communities for Nauttiqsuqtiit (Inuit Stewards), to collaboratively explore new fisheries opportunities within or adjacent to Tallurutiup Imanga, to build capacity within Hunters and Trappers Organizations, and for Inuit research and monitoring; as well as a new collaborative governance model which sets in place an Inuit advisory body (Imaq) and a joint Inuit/Government consensus management board (the Aulattiqatigiit Board).	Tuvaijuittuq is a remote marine area dominated by multi-year pack ice. As this area experiences harsh conditions, it is largely unnavigable. For these reasons, economic opportunities are currently minimal. The Ministerial Order regulations are meant to temporarily restrict new activities that may cause harm to this unique environment until such a time where partners jointly establish a longer-term protection measure which can support sustainable future economic opportunities.

Education and outreach

In November and December 2022, the Tuvaijuittuq Working Group visited the communities of Arctic Bay, Clyde River, Grise Fiord, Pond Inlet and Resolute Bay to share the results of various assessments and to seek input on next steps to consider marine protection options in the area.

In April 2023, the Working Group traveled to these communities to seek input on a proposed new Ministerial Order MPA in Tuvaijuittuq. This consultation process included:

- meetings with community Hunters and Trappers Associations (HTAs), hamlet councils and local Nauttiqsuqtiit representatives

Photo credit: Tremblay

- community open-house events
- virtual follow-up meetings with select community groups as needed
- additional information packages sent to communities
- What We Heard reports sent to community organizations to ensure input was appropriately captured

In July 2023, industry and other stakeholders were engaged on the proposal to pursue a second Ministerial Order MPA.

Research and monitoring

The ongoing multi-tiered ArcticCORE (Conservation, Observation, Research and Engagement) program collects ecological data on the unique ecosystems of Tuvaijuittuq to inform long-term protection in the region. In 2023, research activities included:

- ship-based ecosystem research in Archer Fiord and Northern Baffin Bay
- marine mammal aerial survey of Archer Fiord, Nares Strait, Nansen/Greely Fiord and other fiords in western Ellesmere Island
- deployment of a long-term observatory (moorings) to monitor oceanographic conditions in Archer Fiord and Nares Strait

The long-term observatory is connected to mooring platforms in Baffin Bay and Sarvarjuaq (North Water Polynya) and will provide critical information on the connectivity of the Tuvaijuittuq marine ecosystem to adjacent ecosystems. The ship-based ecosystem survey onboard the CCGS Amundsen in September 2023 also enabled the first characterization of the physical, chemical and biological oceanographic conditions of Archer Fiord and the first mapping of its sea floor.

Key findings of this expedition include the:

- increased accessibility of the region due to low sea ice concentrations
- observation of higher primary production activity as anticipated at this high latitude and late season due to the increased open water areas

Archer Fiord was once again a marine mammal hotspot where narwhal, Atlantic walrus and ringed seals were observed. This first oceanographic sampling as well as the repeated marine mammal survey of the region will help to reduce knowledge gaps about key ecosystem components and fundamental structural ecological features, which were identified in the CSAS science response (2020).

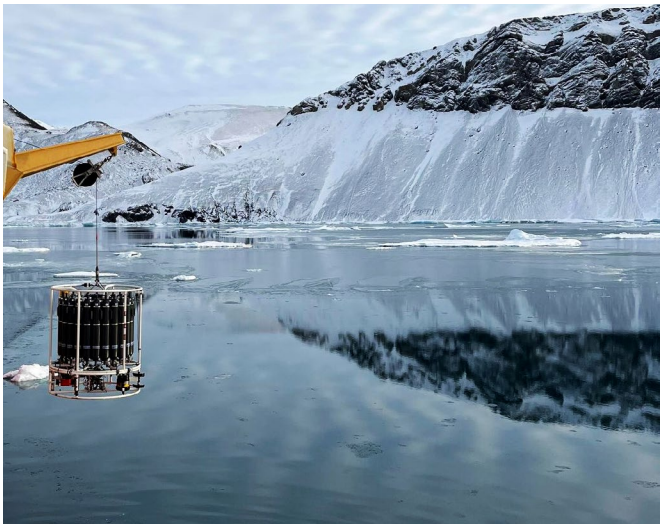

Photo credit: Lee

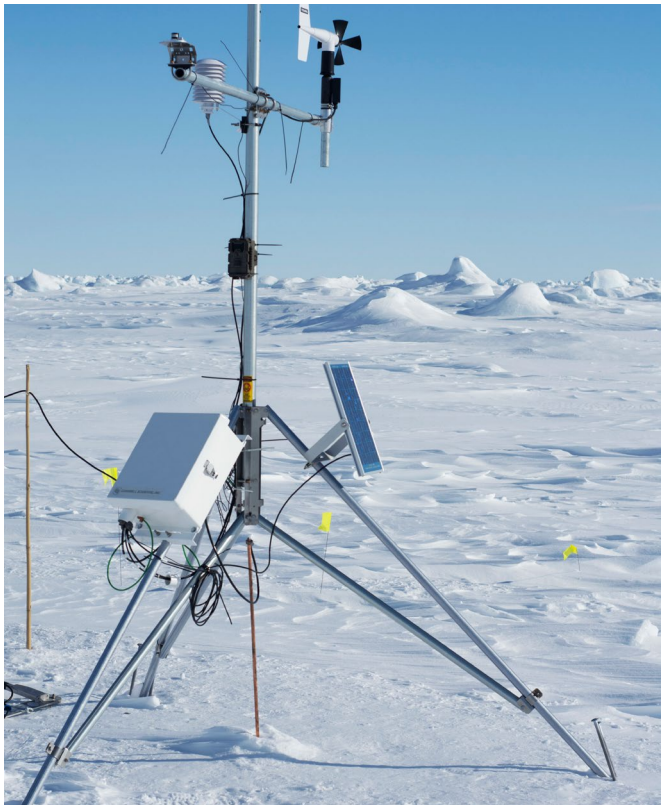

Photo credit: Coupel

Activity	Lead	Outputs	Outcomes
Ship-based ecosystem survey	DFO	29 days at sea	Physical, optical and chemical data on water column properties; Biological data on microalgae, invertebrates and fish; seafloor maps; deployment of long-term observation platforms
Marine Mammal aerial survey	DFO	11 days in the air	Visual observations of marine mammals were recorded along with photographs and infrared video.

Collaborations and partnerships

The Government of Canada, represented by DFO, TC and PC, and the Qikiqtani Inuit Association co-manage the Tuvaijuittuq MPA through the Aulattiqatigiit Board, in alignment with the Tallurutiup Imanga IIBA. Also applicable is a Memorandum of Understanding (MoU) signed by the Government of Canada (represented by DFO and PCA), the QIA, and the Government of Nunavut (GN) in 2019. This MoU sets out guidelines for a joint process to determine the feasibility and desirability of long-term protection in Tuvaijuittuq. DFO and its partners continue to consult with the High Arctic communities of Arctic Bay, Clyde River, Grise Fiord, Pond Inlet and Resolute Bay on this area to seek input, advice, local knowledge and Inuit Qaujimajatuqangit to inform decision-making.

In 2023, DFO carried out ecosystem research onboard the CCGS Amundsen within the ArcticCORE program in collaboration with Canadian university groups (e.g. Laval University, Memorial University of Newfoundland, University of New Brunswick, York University among others), international research organizations including Amundsen Science, and research teams from France and Denmark.

Photo credit: Lee

Surveillance and enforcement

This area has the oldest and thickest sea ice in the Arctic Ocean, which naturally limits the activities that occur within its boundaries. While the area has been used by Inuit historically, there are currently no permanent human settlements within or adjacent to Tuvaijuittuq MPA, and the two closest inhabited areas are the High Arctic community of Grise Fiord and the Canadian Forces station (CFS) Alert located at the northernmost tip of Ellesmere Island.

The remote location, environmental conditions, and size of Tuvaijuittuq MPA present significant challenges to conducting on-site patrols to support surveillance and enforcement. In addition, the costs with conducting patrols in the high Arctic are elevated. Due to these limitations,

DFO's Conservation & Protection Officers monitor activity within this MPA remotely. Remote surveillance includes monitoring vessel traffic with Automatic Identification System (AIS) as well as any northern adventurer traffic intending to pass through the area with online open source materials. They are also exploring the use of satellite dark vessel technology to monitor the area, and any vessel traffic that is not reporting on AIS.

A compliance enforcement plan was last updated in 2021, and remains in place.

Photo credit: K. Lagerwerf

Management and governance

The joint Inuit/Government Aulattiqatigiit Board continues to co-manage the Tuvaijuittuq MPA according to the Tallurutiup Imanga National Marine Conservation Area IIBA, and the Board meets on a quarterly basis.

This ice-covered area was established as a marine protected area by Ministerial Order under the *Oceans Act* in 2019. DFO and its partners are currently pursuing a process to repeal the current Ministerial Order MPA in Tuvaijuittuq and replace it with a new Order at the request of the Qikiqtani Inuit Association. The Order freezes the footprint of ongoing activities in the area for up to five years. There is no process to authorize activities within a Ministerial Order MPA and as such, activity plans are not possible. Activities that occurred over the 12 months prior to designation, or were authorized to occur, are allowed to continue, while new activities are prohibited, with some exceptions. The Ministerial Order regulations do not impact Inuit harvesting rights provided for under the Nunavut Agreement. This new Order will provide additional time to explore options that include an Inuit Protected and Conserved Area (IPCA) in Tuvaijuittuq.

DFO currently has collaborative agreements in place with the QIA and the Government of Nunavut to support involvement in Tuvaijuittuq. QIA has an additional contribution agreement with DFO to advance Article 16 (Exploring Fisheries Potential) under the IIBA.

Photo credit: Duerksen

Looking to the year ahead

Activities anticipated in the year ahead include establishment of a second Ministerial Order MPA and exploration of an IPCA in Tuvaijuittuq, in collaboration with partners. These activities are anticipated to include additional consultations/workshops in each of the 5 implicated communities to inform long-term management decisions for the area. In 2024 DFO Science and Marine Planning and Conservation program will travel to all five associated communities to present on the research occurring in this area. The Aulattiqatigiit Board will continue to manage the area under the Tallurutiup Imanga National Marine Conservation Area IIBA.

Photo credit: Duerksen

Published by:
Fisheries and Oceans Canada, Ottawa, Ontario K1A 0E6
Également disponible en français.

Cat. No. Fs1-101E-PDF ISSN 2818-677X

Correct citation for this publication:
Fisheries and Oceans Canada. 2025. Tuvaijuittuq Marine Protected Area (MPA) annual report 2023. Annual report. Tuvaijuittuq Marine Protected Area 9 p.