The IQP-ASR Project

Inuit Qaujisarnirmut Pilirijjutit
on Arctic Shipping Risks
in Inuit Nunangat

Inuit Qaujisarnirmut Pilirijjutit on Arctic Shipping Risks

COMMUNITY RESEARCH REPORT

Mittimatalik (Pond Inlet) and Arviat, Nunavut

Prepared as part of the Canada Inuit Nunangat United Kingdom (CINUK) Program – March 2025

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CINUK
CANADA – INUIT NUNANGAT – UNITED KINGDOM
ARCTIC RESEARCH PROGRAMME

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NOTICES

This report reflects the views of the authors and not necessarily those of our funders and partners. Intellectual Property of project results remain with the authors.

ACKNOWLEDGEMENTS

We acknowledge all our project team members (see page 4), partners and funders. We would particularly like to acknowledge the CINUK Arctic Research Programme, without which the project would not have been possible.

Our Funders and Partners

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THE IQP-ASR PROJECT

WHAT IS THE IQP-ASR?

Across Inuit Nunangat, shipping activity has grown by more than 250% since 1990 and additional increases are expected as sea ice melts due to warming temperatures. The Inuit Qaujisarnirmut Pilirijjutit (Inuit Knowledge Project) on Arctic Shipping Risks (IQP-ASR) focused on understanding the impacts and risks of the ongoing and expected increases in shipping activity across Inuit Nunangat and on identifying ways to manage risks in ways that support Inuit self-determination and sustainable oceans governance. The specific project objectives included:

1. Analysing past and future ship traffic in Inuit Nunangat;
2. Modelling current and future underwater noise caused by ships;
3. Sampling potential air and water pollution from ships;
4. Evaluating potential for non-indigenous species introduction from ships, and;
5. Developing risk maps and evidence-based recommendations.

WHO WAS PART OF OUR TEAM?

The project team included Inuit, academic, and government researchers from:

Affiliation	Project members
University of Ottawa	Jackie Dawson Jean Holloway Jeff Yaremko Selina Baffour-Asare Sierra Beacher Nathaniel Holloway Connor Rettinger Adrian Nicol Lyra Evans Mojtaba Moghada Andrew Oraweic Bonnie Hamilton
British Antarctic Survey	Vicky Peck Betty Boyse Thomas Lachlan-Cope Melody Clark Calara Manno
Inuit Circumpolar Council Canada	Stephanie Meakin
Aqqiumavvik Society	Kukik Baker Joe Karetak Jimmy Muchpah Zach Owingayak Lucas Owlijoot
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Universite Laval	Phillip Archambault Mathieu Roy
Ikaarvik	Michael Milton Justin Milton Shelly Elverum Eric Solomon Peter Inootik
University of Victoria	William Halliday
Styles Group Underwater Acoustics	Matt Pine
Scripps Institution of Oceanography	Joshua Jones
Oceans North	Kristin Westdal
Fisheries and Oceans Canada	Kimberly Howland Chris McKindsey
Environment and Climate Change Canada	Jennifer Provencher Alex Jardine Jamie Enook Jesse Wilson Natasha Neves

WHAT DID WE DO?

The IQP-ASR project was co-developed among a team of Inuit Knowledge Holders from Pond Inlet (Mittimatalik) and Arviat, and academic and government researchers from across Canada and the United Kingdom. Funding for the work was obtained from the Canada-Inuit Nunangat-United Kingdom (CINUK) Arctic Research Programme. Together, our team decided to look at the differences in shipping patterns and shipping risks that were of most concern and to compare the results for 1) Arviat, where ship traffic has historically been very low, and 2) Pond Inlet, where ship traffic has been very high. We agreed on five major activities that were completed over a period of three years between 2022 and 2025. The research activities included to better understand:

1. Shipping patterns - by using available data to create maps and visuals of the changing levels of ship traffic in Inuit Nunangat and around the communities of Pond and Arviat.
2. Underwater noise – by modelling the noise levels of ships in key corridors and in and around several communities.
3. Pollution: by establishing baseline knowledge on ship-derived contaminants such as plastics and hull paint to improve understanding of potential pollution risks.
4. Non-Indigenous species - by assessing the presence of and potential for non-indigenous species introduction into the region by ships.
5. Overall risks - by combining all of our research findings and creating risk maps that highlight certain geographic areas that are at the most or least levels of risk from ships.

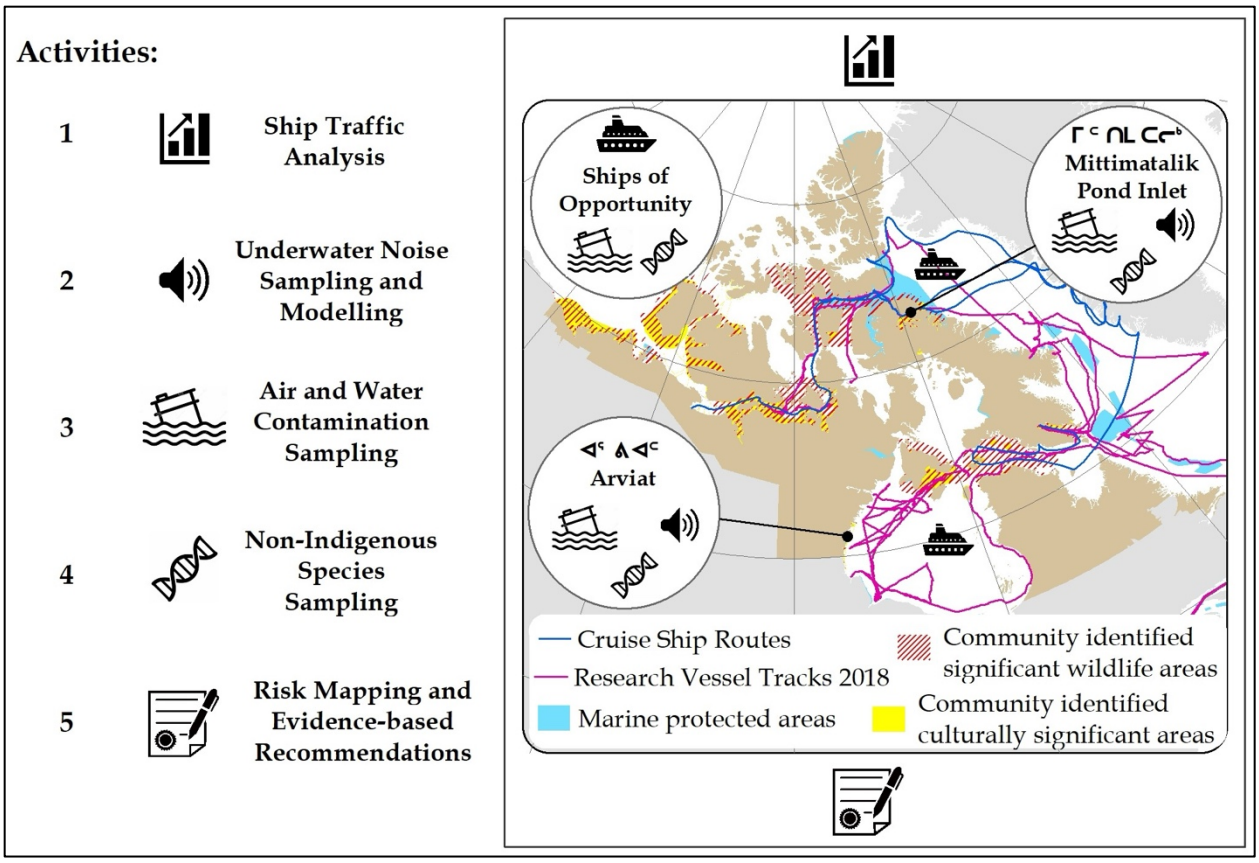
HOW DID WE COLLECT INFORMATION?

We collected information for the IQP-ASR project from 1) satellites, 2) cruise ships and research vessels, and 3) in communities (Pond Inlet and Arviat).

Satellites – We collected pictures of sea ice taken from satellites in space and used these pictures to understand how the sea ice has changed over time and shipping corridors have opened and closed based on changes in sea ice extent. We also collected information on the location of ships in Inuit Nunangat that is collected by satellites from transponders that larger ships are regulated to carry. This information allowed us to understand how shipping activity has changed between 2012 and 2024 and where it has changed.

Onboard Ships – Our research team was invited to collect samples from several tourism and research ships. We were able to conduct water sampling from on board ships (e.g., *Polar Prince, Amundsen*, *Ocean Endeavour, Fram)*, transiting Arctic waters from July-October 2023, and 2024. Onboard the ships, we sampled seawater from the inlet in the hull and filtered it through a mesh to collect microplastics. We also took water samples for environmental DNA (eDNA) to identify any non-indigenous species upstream and downstream of the ship and at shore locations. At shore locations where the ships stopped, we took sediment samples (100g) in metal bottles and took pictures of any plastic debris (garbage) on the beach.

In Communities - Community-based and Inuit-led sampling of sediment and water for microplastics was conducted in Arviat, Nunavut and Pond Inlet, Nunavut during the open-water season (July - October, 2024). This work was conducted by community coordinators and research technicians in Pond Inlet (i.e. Michael Milton, Peter Inootik) and Arviat (i.e. Jimmy Muckpah, Lucas Owlijoot, and other Aqqiumavvik Society staff). Youth cohorts in both communities also participated in sampling. Sediment was sampled on the shoreline by scooping the top 5cm into a metal bottle. Shallow water (10-20 m deep) sediment was sampled using a box core sediment grab. Microplastic water samples were collected using mesh nets towed behind small motorboats. The nets have a pore size of 300 microns, meaning plastics larger than 300 microns (0.3 millimeters) will be captured. The study locations were selected by community researchers based on local knowledge and areas of interest. Sites were also selected based on areas of high and low ship traffic. One southern-based researcher travelled to Pond Inlet in August, 2024, and sampled 6 ship hulls using a small Remotely Operated Vehicle (ROV) to identify potential hull fouling. This was done by taking videos of the ship hulls and sampling water for eDNA using a small syringe equipped on the ROV.



WHAT TRAINING DID WE PROVIDE?

In May 2022, our full team participated in a virtual two and a half day training provided by our Inuit partner organization Aqqiumavvik Society. The training consisted of an overview of Inuit Qaujimajatuqangit (IQ), how to build trust, relationship and collaborative approaches, and an introduction to the Aajiiqatigiingniq Research Methodology (ARM) which has been adopted for our project. Additionally, several community researchers were shown portable hydrophones while we were at the 2022 ArcticNet ASM and they were able to spend some time playing with the equipment and learning how it is used.

In February 2023, we held training in Ottawa for how to sample for microplastics. Two hunters from Pond Inlet and Arviat were able to participate in the training session, as well as team members from the UK and across Canada. In February 2024, our community coordinator from Pond Inlet, Michael Milton, travelled to Ottawa to receive more training on sampling microplastics. Inuit from both communities then travelled home and taught other staff and youth cohorts the proper methods for sampling. In 2023 and 2024, community members in Pond Inlet were trained on how to use the ROV.

In February 2025, a training session for Inuit community researchers on how to take sea ice-cores to sample for microplastics was held in Pond Inlet.

IQP-ASR MAJOR PROJECT RESULTS

SHIPPING TRENDS IN INUIT NUNANGAT

Figure 1 is the regionwide shipping traffic densities between 2013-2022, which shows the routes that ships tend to travel in the Canadian Arctic. Red areas on the map mean greater ship traffic. Traffic is highest in Milne Inlet, near Pond Inlet, and along the eastern coast of Baffin Island, Frobisher Bay, Hudson Strait, Baker Lake, Rankin Inlet, and along the southern route of the Northwest Passage (NWP).

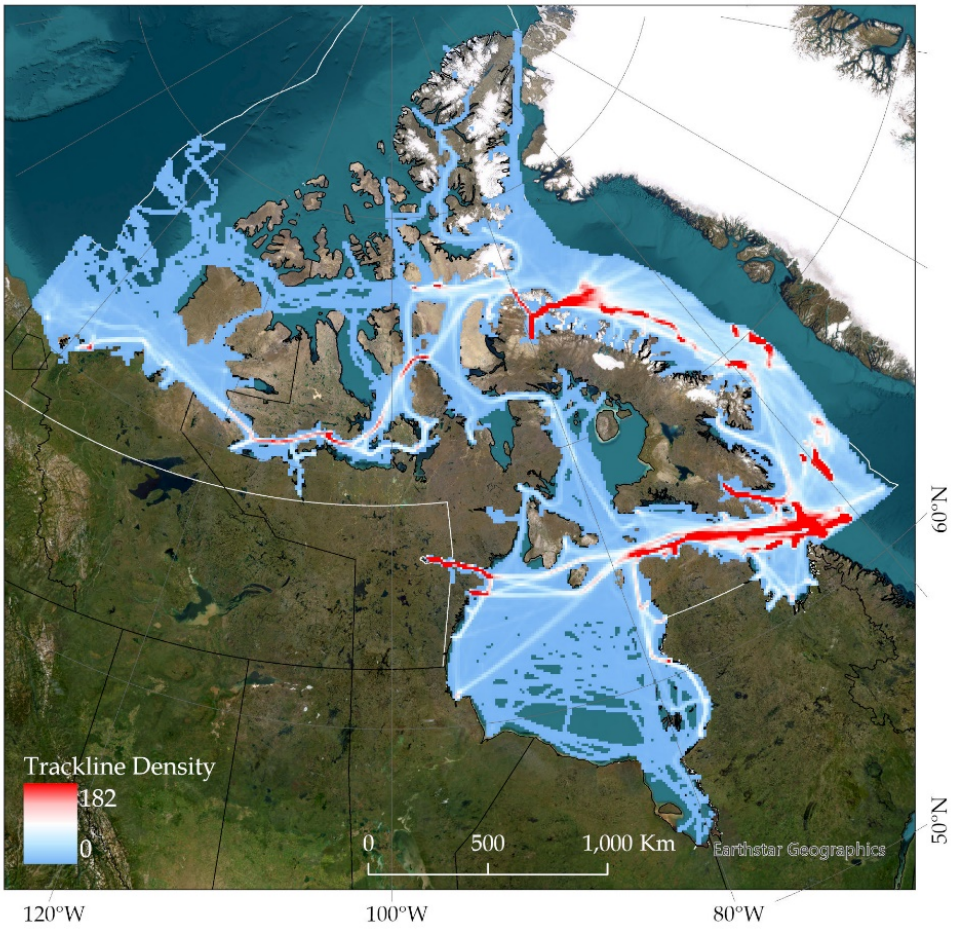


Figure 1: Trackline density for all ship tracks between 2013-2022 (tracklines per 10 km² grid cell).

Figure 2 shows the number of times ships travelled within 20 km of communities (voyage counts). The lowest was 2 at Qamani'tuaq (Baker Lake) and the highest was 988 at Mittimatalik (Pond Inlet).

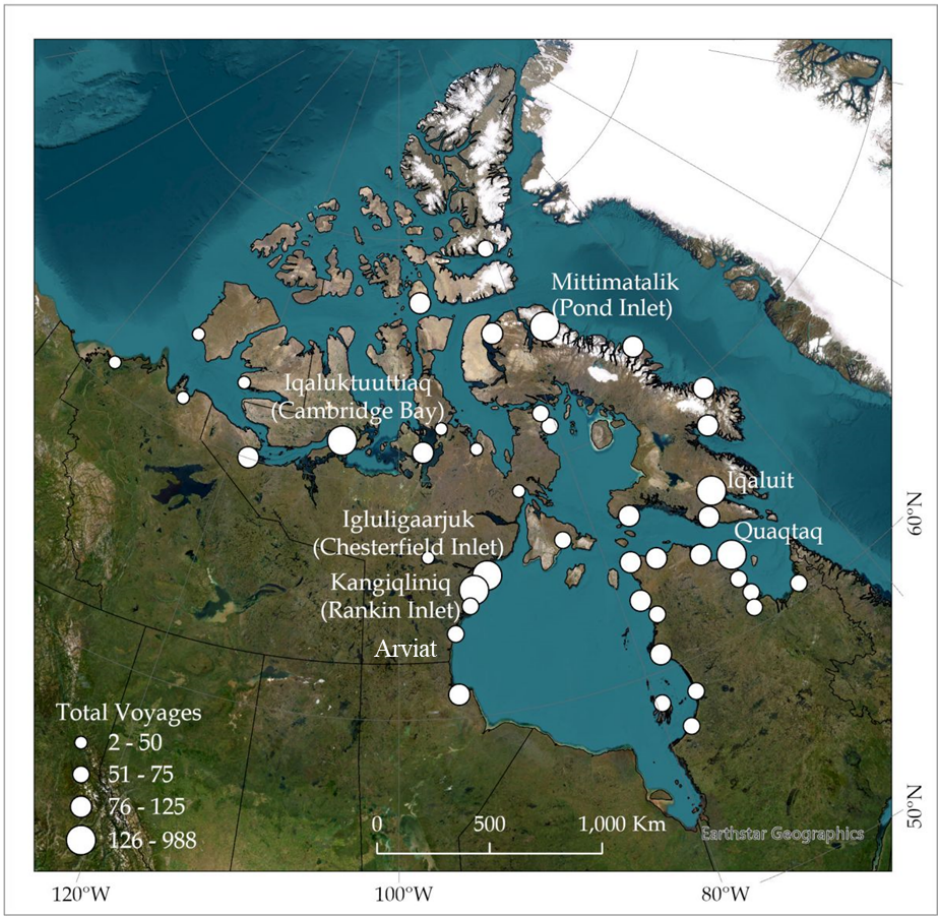


Figure 2: Total voyage counts (2013-2022) within 20 km of each community are shown by graduated symbol size for each community. The voyage count does not include Tugs/Port vessels. The six communities with the greatest voyage counts are labelled, in addition to Arviat.

COMMUNITY LEVEL SHIPPING TRENDS

MITTIMATALIK

Mittimatalik had a large increase in ship traffic within 20km of the community over the last 30 years (1990-2022) (Figure 3). In 1990, there were only 9 total ship voyages near the community and in 2022 it increased to 155. Ship traffic near Pond Inlet was highest in 2019 with 174 voyages.

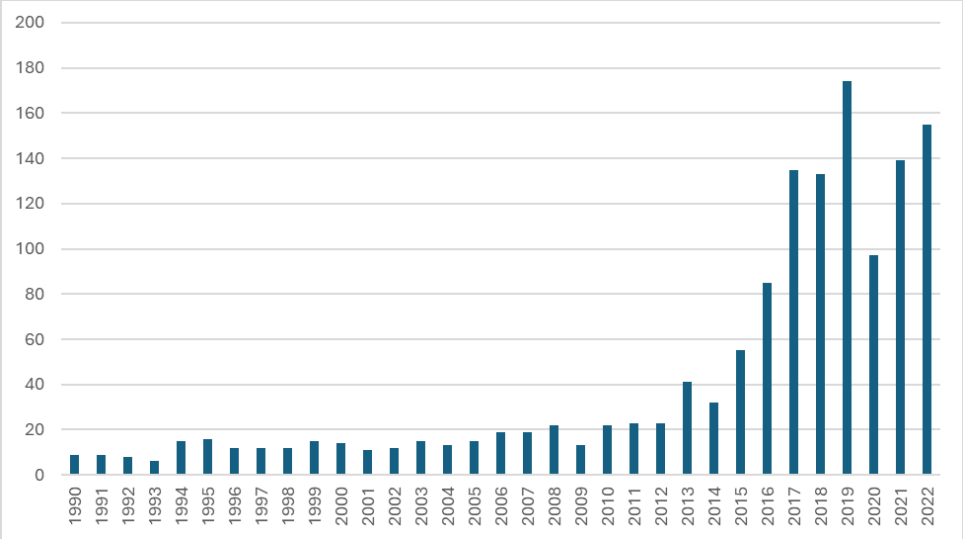


Figure 3: Total ship voyage counts within 20km of Mittimatalik (Pond Inlet), Nunavut between 1990-2022. Higher bars indicate more ship traffic and shorter bars indicate less ship traffic.

The majority of ship traffic near Pond Inlet since 1990 is from bulk carriers (ore carriers) (Figure 4). Most of these ships are from the Baffinland Iron Ore Mine which opened in 2015. Traffic increased greatly near Pond Inlet after Baffinland opened (Figure 3). The other main ship types observed near Pond Inlet were passenger ships (cruise ships), cargo ships (resupply, Sealift), and government/research vessels (icebreakers) (Figure 4).

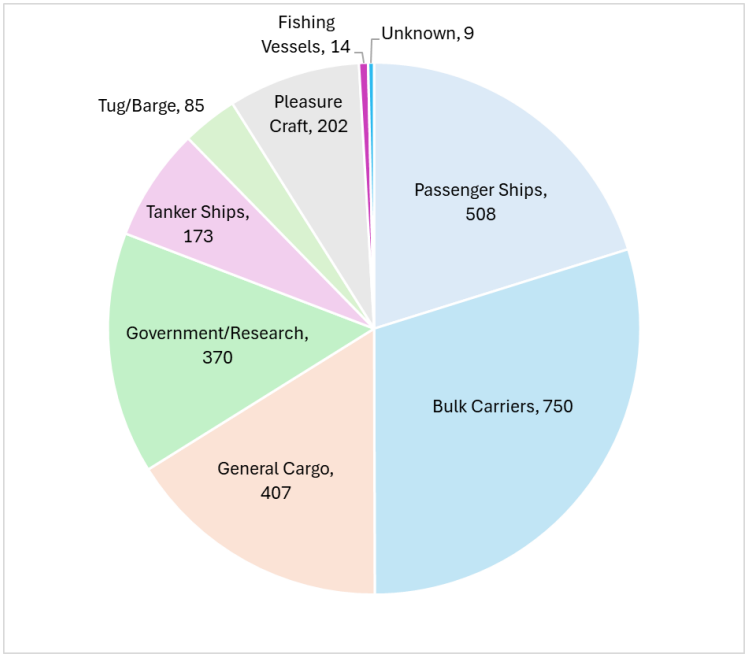


Figure 4: Ship types and total voyage counts within 20km of Mittimatalik (Pond Inlet), Nunavut between 1990-2022.

WHAT WE FOUND AND WHY IT IS IMPORTANT

We found that the number of ship voyages increased substantially between after 2012 in Mittimatalik. The greatest increase is observed following between ~2014-2019. As previously mentioned, the slight drop following this increase is likely due to travel restrictions from the COVID-19 pandemic. Another way to visualize the ship traffic around Mittimatalik is with trackline density maps (Figure 5). This map shows where traffic is highest based on the distance travelled by ships, where red areas are the highest. Areas where ship traffic are higher could potentially be at greater risk. It is likely that ship traffic in Mittimatalik is going to continue increasing. Therefore, it is important that concerns and questions from Inuit are raised and that these results are well communicated to decision-makers.

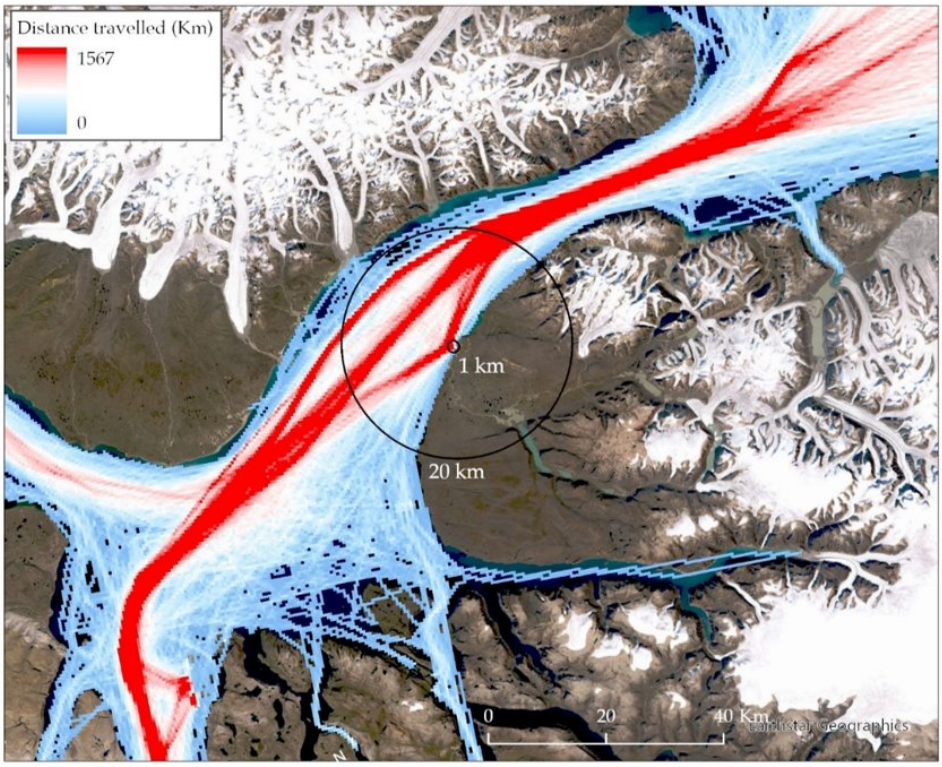


Figure 5: Map of ship traffic by distance travelled. Higher ship traffic is represented in red, while lower ship traffic is in blue. This map also shows a 1km radius around Mittimatalik, as shown by the smaller black circle on the map and the 20km radius is represented by the larger black circle.

ARVIAT

In Arviat, shipping traffic is lower compared to Mittimatalik and has remained steady, increasing from 1 voyage in 1990 to 12 in 2022 (Figure 5). Traffic was highest in 2021 with 16 voyages. Ship types visiting Arviat were mainly cargo ships, tankers, and tugs (Figure 7).

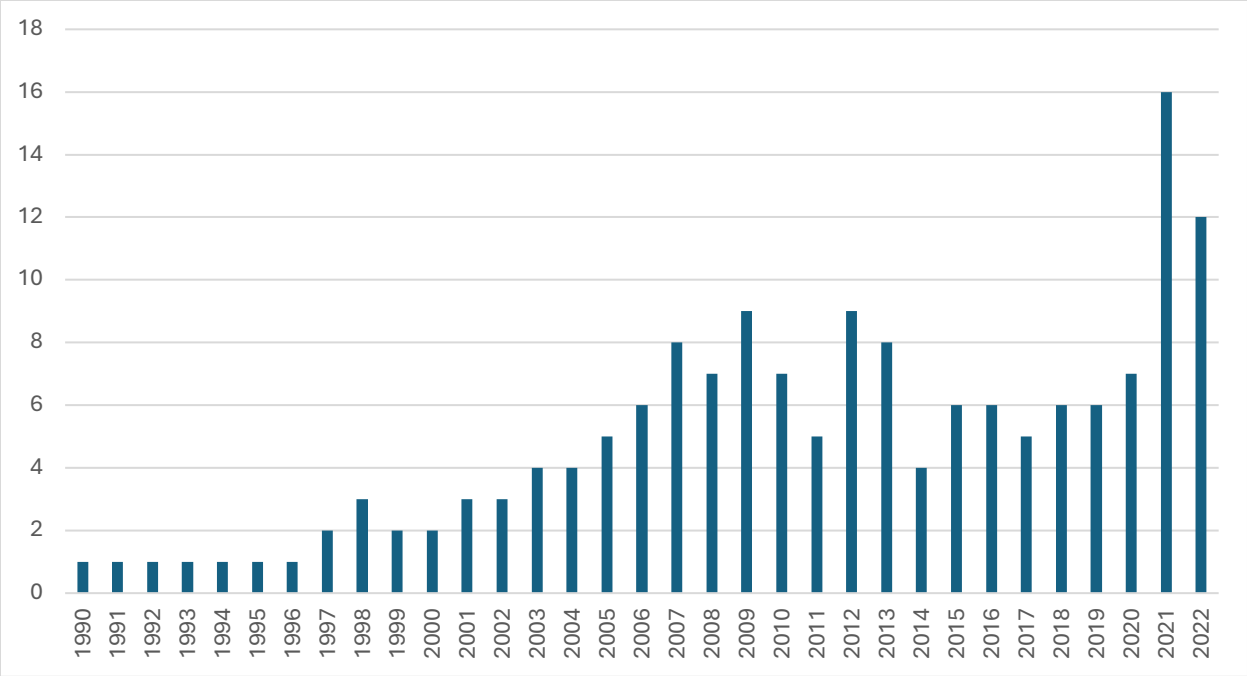


Figure 6: Ship voyage counts by ship type in Arviat, Nunavut between 1990-2022. Higher bars indicate more ship traffic and low bars indicate low ship traffic.

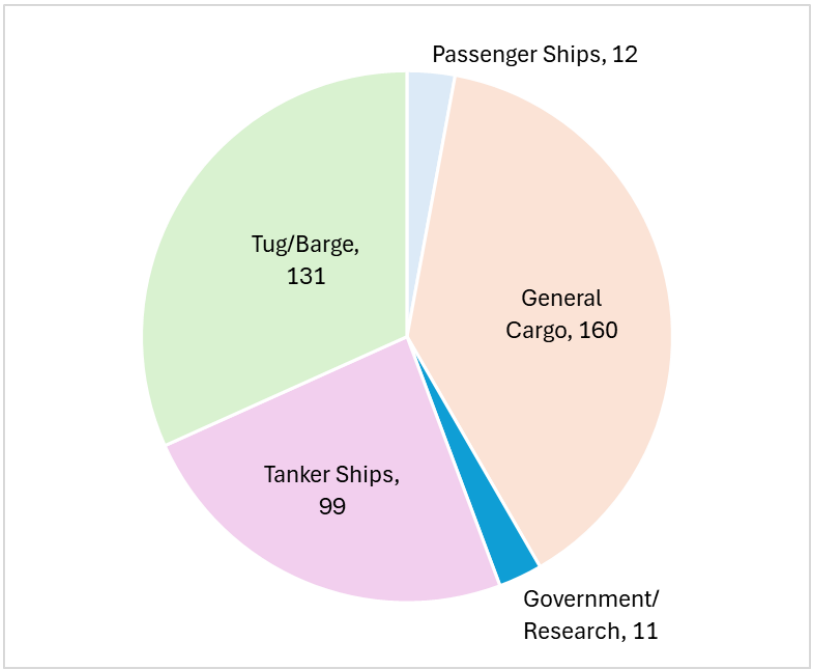


Figure 7: Ship types visiting within 20km of Arviat, Nunavut between 1990-2022.

UNDERWATER NOISE

We used ship position data (from the previous section), and applied models to predict shipping noise by different vessel types and speeds to get maps of underwater noise intensity near (100

km² radius) Pond Inlet and Resolute Bay (as a substitute for Arviat due to availability of data). We used these models to look at future noise if ship traffic increases. We used existing year-long (2017-2018) passive acoustic data from Pond Inlet and Resolute Bay, collected using bottom-mounted High Frequency Acoustic Recording Packages (HARPs) to validate the noise models.

We found the most underwater noise was in Eclipse Sound, Arviat has the least and Resolute Bay is intermediate (Figure 8). With more ships transiting near Pond Inlet than any other community this would lead to higher levels of noise. These results suggest that underwater noise is more likely to have an impact on marine wildlife in Eclipse Sound than in Arviat or Resolute.

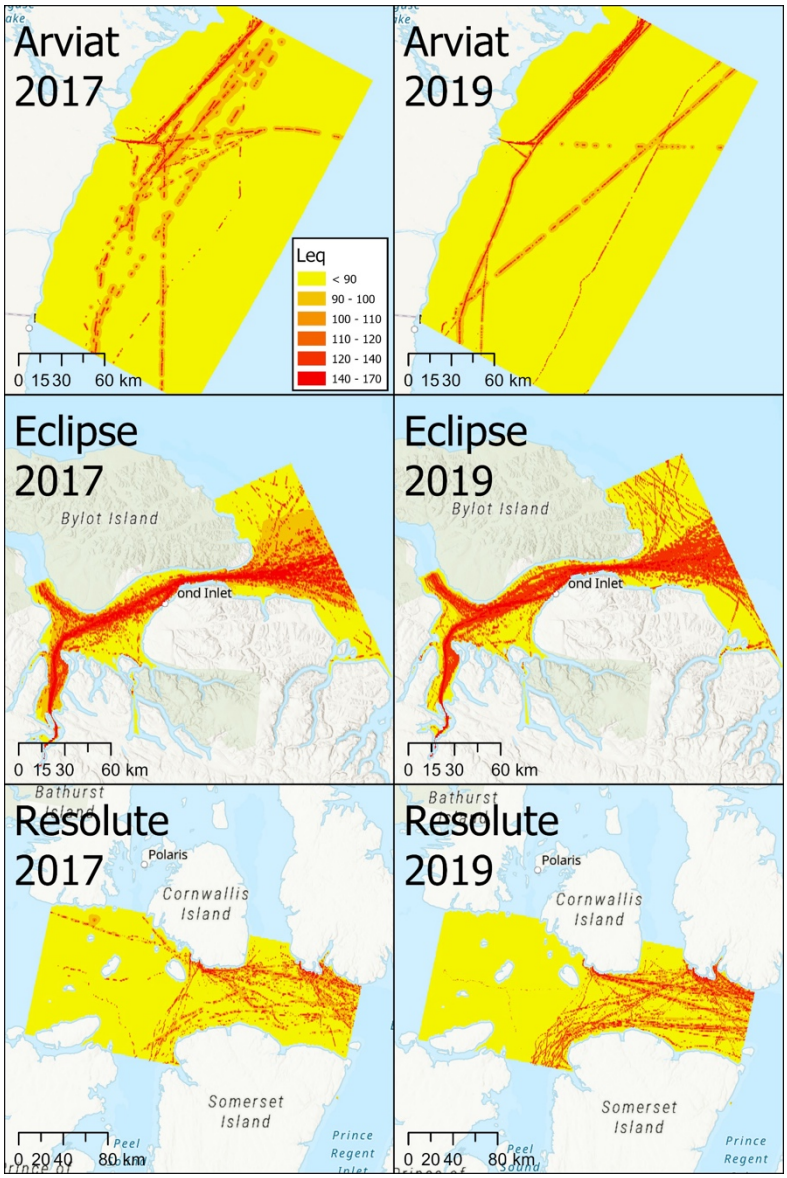


Figure 8: These maps show the level of underwater noise in Arviat, Eclipse Sounds and Resolute Bay in 2017 and 2019. The red lines represent very high levels of noise while the yellow represents low levels of noise.

MICROPLASTICS

Microplastics are tiny plastic pieces, less than 5mm, that originate from larger plastics or are manufactured at small sizes. As more ships are travel in the Canadian Arctic, there is an increased risk of microplastic pollution. These particles take various forms, including fibers from clothing, fragments, films, styrofoam, and paint. Ships, in particular, use specialized paints on their hulls. Anti-fouling paints are designed to prevent the attachment of non-indigenous species by flaking off to keep the hull clean, called “self-ablating” paint. Icebreakers, on the other hand, require durable, "abrasion-resistant" paints to withstand pushing through ice. However, this process leaves streaks of paint in the environment. All these ship paints contain plastic-derived chemicals, which provide their unique properties.

There's increasing worry that microplastics from ship hull paints could harm Arctic animals and the environment. This is especially important for the health of traditional foods in the sensitive Arctic ecosystem. To address this concern, we studied microplastics in Arctic water and sediment. Our first step is to understand where microplastics from ships end up and where animals might encounter them. To do this, we've collected water and sediment samples across Inuit Nunangat in 2023 and 2024 onboard ships and in communities (Figure 9).

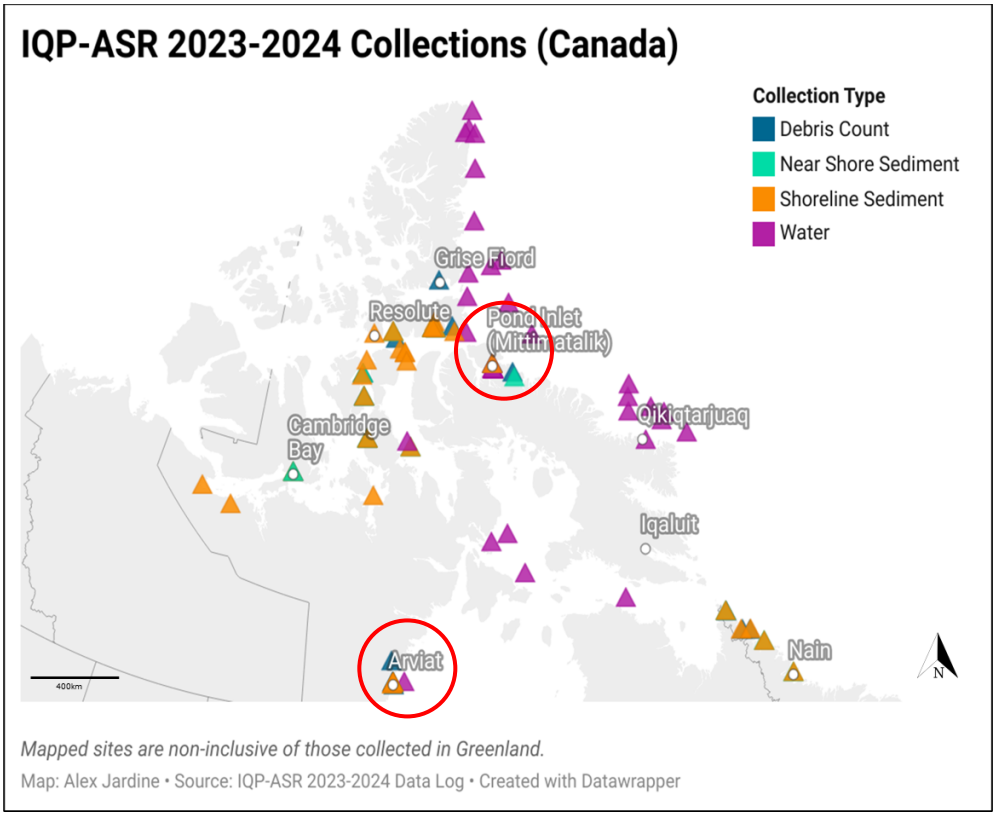


Figure 9: Map of collection sites for IQP-ASR microplastics sampling between 2023 and 2024, where Pond Inlet and Arviat are circled in red.

The samples were then sent Once collected, metal bottles full of water were sent to Ottawa, Ontario, where a team of Environment and Climate Change Canada (ECCC) researchers are

currently processing them for microplastics at the National Wildlife Research Centre (Figure 10a, 10b). Samples were treated with chemicals and filtered to extract the microplastic particles. The microplastics were then inspected under a microscope, and isolated on microscope slides. The total number of plastics, as well as their physical shapes and colors were recorded. To date, water collections from both Pond Inlet and Arviat are in the process of being completed, and very early data has been collected. Since Pond Inlet experiences higher ship traffic than Arviat, we expect to find more plastic in Pond Inlet samples compared to Arviat overall.

Figure 10: A) The National Wildlife Research Centre in Ottawa, Ontario Canada; B) Alex Jardine processing microplastics samples under a microscope.

We can report on 1 collection site at each community at this time but will continue to share data as it becomes available. In the Arviat water sample, we found 28 total suspected microplastics (Figure 11). We refer to the recovered items as “suspected” plastics, since at this stage our lab is not enabled with polymer identification equipment, which will tell us the type of plastic an item is made of. At the time that this report is delivered, we will be underway performing these identifications with new equipment (mid-March, 2025). Most items we recovered were fibers (14 including 1 bundle of fibers), but we did also recover some films (11), paints (2), and a fragment (Figures 11 and 12). Fibers are usually the most abundant type of plastic, so this result is expected. Fibers also tend to float, since they are less dense than other plastics. We expect to find more paints (which are heavier) in the sediment rather than in the water. The average size of each particle was 3.63mm.

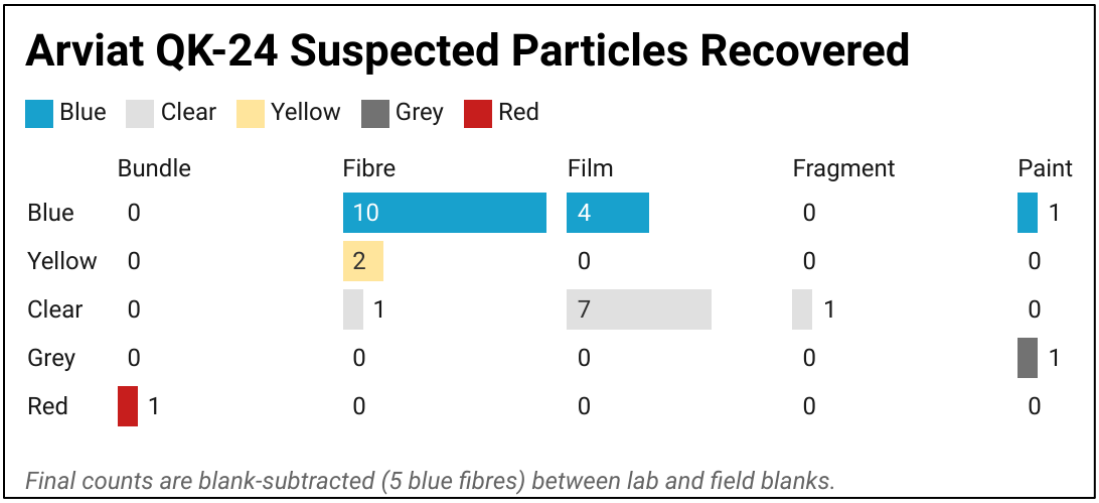


Figure 11: Recovered suspected microplastics from Arviat, including the colour and shape of the plastics.

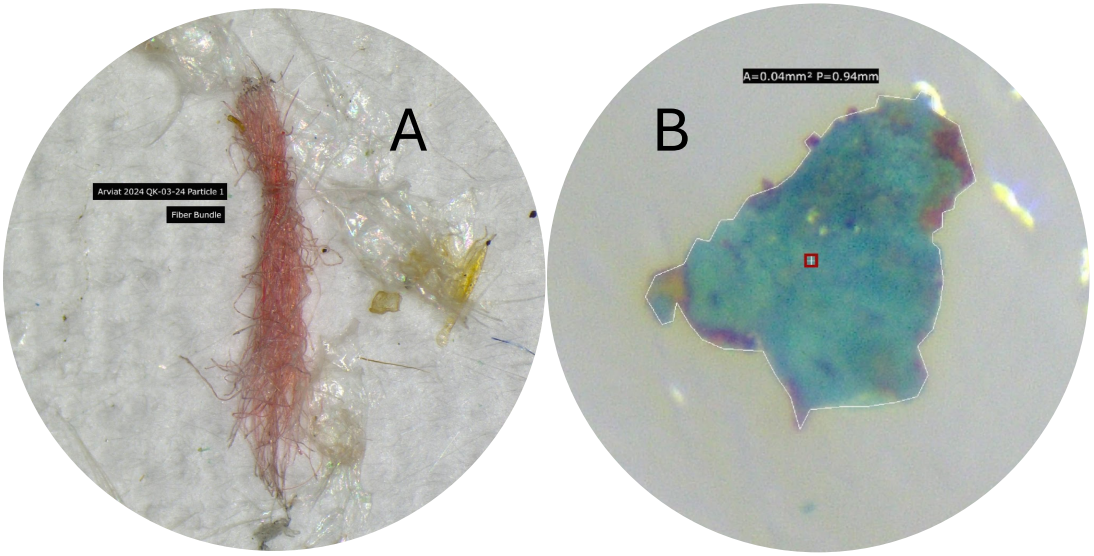


Figure 12: A) Example of a bundle; B) Example of a paint.

In Pond Inlet, we observed a total of 65 total suspected plastics, more than twice as much as in Arviat. Again, most particles were fibers (57 including 1 bundle), with some paints (5), fragments (2) and 1 film (Figures 13 and 14). When we compare Pond Inlet to Arviat, so far Pond Inlet has over 2x the amount of microplastics recovered from the water samples (Figure 15).

It is important to highlight a few key points about this data. First, this is the first of many collections that were sent to the lab in Ottawa, and therefore the results will change over time as more water and eventually sediments are processed. Second, there was an increase in recovered paints in Pond Inlet as well, indicating that ship traffic is likely to play a role in the introduction of these pollutants. Third, although there was twice as much suspected plastic in Pond Inlet, this ***does not*** mean that the water is unsafe, or overly contaminated. The water samples are collected by filtering

over 80,000 liters of water through the net, meaning that the ratio of plastic to water is 0.8125 particles per m^3 in Pond Inlet, and 0.35 particles per m^3 in Arviat. This is overall a minuscule amount.

Pond Inlet C-23 Suspected Particles Recovered

Black Red Clear Green Purple

	Bundle	Fibre	Film	Fragment	Paint
Blue	1	24	1	2	5
Black	0	13	0	0	0
Red	0	9	0	0	0
Clear	0	6	0	0	0
Green	0	2	0	0	0
Purple	0	2	0	0	0

Final counts are blank subtracted between lab and field blanks.

Figure 13: Suspected particle shapes and colours recovered from Pond Inlet water samples.

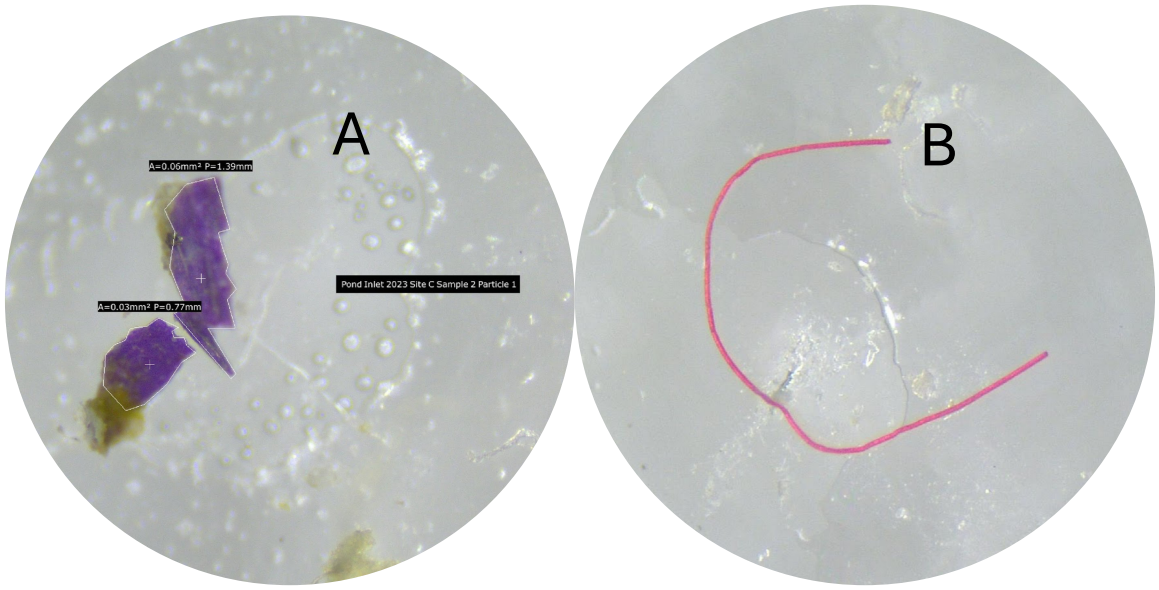


Figure 14: A) Example of a paint; B) Example of a fiber.

Despite this, southern and Inuk researchers understand the importance of monitoring these contaminants and that results may be different depending on many factors, like time of year, location, and the type of sample. We also have heard and will be incorporating suggestions raised during a workshop in Pond Inlet in February 2025, where more focus on country foods, fish, sea ice and specific locations near and far from communities will be considered. These are all future research goals that we are excited to develop in partnership with local knowledge holders.

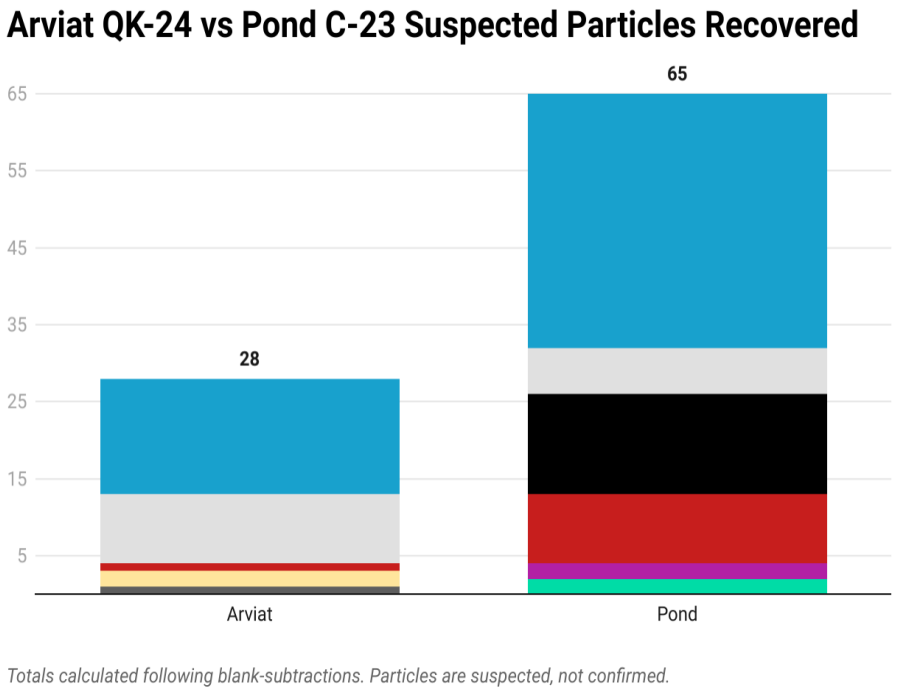


Figure 13: Number of suspected plastics recovered between Arviat and Pond Inlet. The colours of the bars represent how many particles of that colour observed were observed.

SHIP BASED INVASIVE SPECIES INTRODUCTIONS

WHAT ARE INVASIVE SPECIES?

Ships are the primary method for moving marine species to new locations. Species can be transported by attaching to the bottom of the ship, called hull fouling, or by being carried in ballast water. A non-indigenous species may become invasive if its establishment results in negative impacts, either ecologically (i.e., outcompetes native species) or economically (i.e., damage to marine infrastructure). Regions with a long history of high shipping activity, such as the Mediterranean, NW Europe, and the Pacific Northwest, are now home to 100s to 1000s of non-indigenous species. The local ecosystems in these regions are forever changed because of a small number of these non-indigenous species becoming invasive.

WHAT IS HAPPENING IN THE ARCTIC?

Increased ship traffic through Nunavut, with ships arriving from both national and international locations, may increase the risk of marine non-indigenous species arriving. Cold and icy conditions have so far prevented any of these non-indigenous species from establishing populations. As a result, the Canadian Arctic remains pristine with respect to non-indigenous species. However, as the Arctic warms and sea ice is reduced, it is predicted that suitable habitats for non-indigenous species to successfully establish will increase.

HOW CAN WE PRESERVE THE PRISTINE ARCTIC ECOSYSTEMS?

Knowing how shipping has impacted ecosystems elsewhere in the world, we want to protect the pristine Arctic as best we can. In addition to ships following best practices to limit the chance of non-indigenous species being transported into the Arctic, we hope that monitoring the waters for the first sign of a non-indigenous species can act as an early warning system. DNA of species living in the water can provide this early warning.

WHAT ARE WE DOING? HOW CAN I HELP?

In 2023, we sampled waters along the cruise ship route between Baffin Bay and Cambridge Bay.
Our results provide a good baseline of what species currently live in the Arctic, especially smaller species lower down the food chain which are important food sources for fish and marine mammals. We can use this species baseline to more easily detect when a new species arrives in the area in the future.

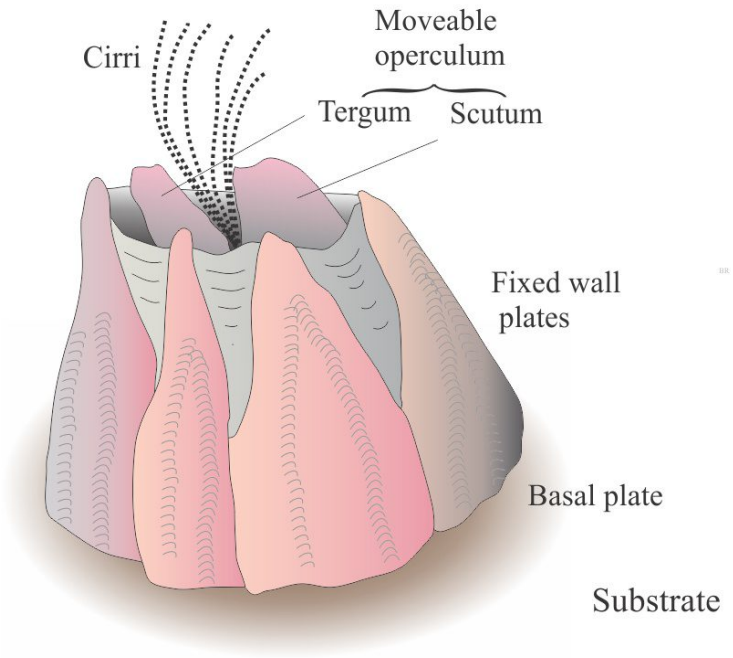
We detected the DNA of one non-indigenous species, the bay barnacle (*Amphibalanus improvisus*), in the waters surrounding Pond Inlet. Seeing the DNA in the water does not mean the bay barnacle is establishing itself around Pond Inlet. It may be the case that the DNA was detected due to larvae in the water column, potentially released from specimens living on the hulls of ships. However, there is a chance that the DNA does indicate a local population, in which case it will be important to verify with visual identification of the species.

We are encouraging you to look out for barnacles to see if you can find the Bay Barnacle around Pond Inlet.

WHAT IS A BARNACLE?

Barnacles are a type of crustacean, related to both crabs and shrimps. They are found in marine environments, mostly living in shallow, coastal waters. Barnacle adults are sessile meaning they do not move and live attached to substrates such as rocks, seaweed, boats, shells of other animals (i.e., mussels) or even whales. They feed by capturing food in specialised feathery hair-like appendages called cirri, which extend out of a small opening in their hard shells. Adult barnacles develop eggs inside their shell which then hatch and are released into the sea as free-swimming planktonic larvae. The larvae swim around for a few weeks before attaching

themselves to substrate with a special glue. The barnacle will remain attached to this substrate for life and continue to grow and develop into an adult barnacle.



INDIGENOUS VERSUS NON-INDIGENOUS BARNACLES?

There are five native barnacle species in the Arctic. We detected one of these species, the common rock barnacle (*Semibalanus balanoides*) in our 2023 survey, alongside the non-indigenous bay barnacle.

Species	Common Rock Barnacle (Native)	Bay Barnacle (Non-indigenous)
Size	20-30 mm	10-20 mm
Colour	Grayish-brown to brown	Off-white to light grey
Wall plates	Plates have ridges with rugged texture that overlap	Smooth plates that do not overlap

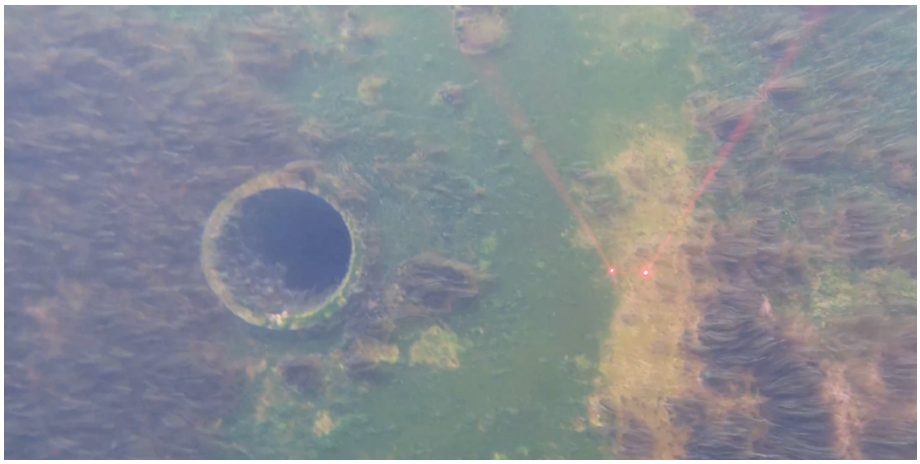
SHOULD WE BE WORRIED?

If bay barnacles are found in the area, they are unlikely to have a high impact on marine community composition or habitats but could potentially outcompete native barnacle species depending on the amount of available habitat. Continued monitoring of any identified populations of bay barnacle will be important to ensure the impact is as limited as possible and will allow further measures to be implemented if required, i.e., eradication protocols. The detections of the bay barnacle indicate that non-indigenous species are arriving in Pond Inlet, and the wider Canadian Arctic. Therefore, increased monitoring to ensure detections are captured early is imperative, at which point if the non-indigenous species is assessed to be high-risk for becoming invasive appropriate preventive actions can be taken.

NON-INDIGENOUS SPECIES INTRODUCTION FROM HULL FOULING

It is crucial to understand and monitor biofouling on ship hulls in the Arctic. Traditional hull sampling methods are challenging and time consuming (e.g. scuba diving). We are testing out a new way of characterizing biofouling organisms on ships in the Canadian Arctic using an ROV equipped with a camera and a water sampler to collect video footage of the ship hulls and water samples upstream and downstream of fouling areas on the hulls, for eDNA analysis. Through video and eDNA analysis, it will be possible to assess the extent of fouling on the hulls, identify significant fouling areas, determine which factors related to the ships' history most affect the fouling composition, identify fouling species on the hulls, and explore the relationship between the known habitats of species and the locations of the last ports visited by the ships.

Data analysis is underway but below is an image of the bottom of a cruise ship passing through Pond Inlet. The hull is covered in algae, which is one way that non-indigenous species can be introduced to an ecosystem.



HOW DID WE SHARE AND CONFIRM THE INFORMATION WE COLLECTED?

Team members mobilized project results at conferences (e.g. CINUK and ArcticNet ASMs). Results were also shared with community partners at meetings throughout the project. Several publications have also been published, prepared, or are in progress for high impact international journals. We also have a website: https://www.arcticshippingscience.com/

KNOWLEDGE EXCHANGE WORKSHOP FEBRUARY 2025

From February 17 – 21st, early-career researchers from the University of Ottawa, Laval, ECCC, and the British Antarctic Survey travelled to Pond Inlet, Nunavut to hold a 5-day youth-led knowledge exchange workshop. The workshop, co-facilitated by Dr. Jean Holloway, Ikaarvik, and youth from Pond Inlet, was about co-interpreting the results of the project and identifying the meaning and relevance for the community. An Inuit Research Associate from Arviat also travelled to Pond Inlet for a cross-community knowledge exchange.

The first two days of the trip were spent with Ikaarvik and early-career researchers. These days were used as a first opportunity to share results from the project and to co-create the agenda for the remaining three days of the workshop with the greater community.

Attendees of the workshop included representatives from the Mittimatalik Hunters and Trappers Organization, the Hamlet, Oceans North, QIA, and the Canadian Rangers. On day 1 of the workshop, Elizabeth Boyse and Mathieu Roy presented on non-indigenous species, Alex Jardine presented on microplastics. The presentations were followed by a discussion period with the group. On day 2, Jean Holloway presented on shipping and underwater noise and Michael Milton and Jimmy Muckpah presented their community-based work. Jean Holloway then ran an exercise with the group to identify concerns relating to specific ship types (Notes on the shipping concerns activity from day 2 can be found in the supplementary information section of this report). On day 3, Julia Macpherson led an exercise on future research directions and presented options for knowledge sharing products for the community. This report was requested from the community.

FUTURE RESEARCH DIRECTIONS

In addition to sharing results from the IQP-ASR project, a key component of the workshop was to identify future research needs that are a priority for Inuit. Four research priorities were identified from community members on the final workshop day, listed in order of priority below:

1. Fish in Kugluktuk Bay (Koluktoo Bay)
    a. Is the red dust from the mine having an impact?
    b. Are there still fish there?
2. Is the red dust from Baffinland ships having an impact on the environment? On health?
3. Phillip's Creek
    a. Are we losing the fish?
4. Land-locked fish

a. Impacts from red dust.

The most common theme among these research priorities are questions about the red dust that comes from the Baffinland mine. There is concern as to whether this dust is impacting the land, animals, and health. Another common theme is the question of fish in freshwater lakes and rivers. It was mentioned that the fish population has decreased dramatically, and the community wants to know why.

WANT MORE INFORMATION?

If you would like more information, please contact us anytime!