Government of Canada-Led or Funded Regional Research and Monitoring Programs

Program Name	Summary	Geographic Scope	Participants / Members (Identify lead/roles)	Duration (Start-End Date, No. of active years)	Outputs (Reports, Database, etc.)
Transport Canada (TC)					
National Framework for Assessing the Cumulative Effects of Marine Shipping (CEMS) https://tc.canada.ca/sites/default/files/2023-03/tc_marineshipping_en.pdf	NOTE: This is a framework. The CEMS initiative provides an opportunity to start addressing the regional cumulative effects of marine shipping at the strategic level.	Pan-Canadian	N/A but TC lead for development of CEMS	Initiative under 2016 Ocean Protection Plan (OPP)	National Framework
CEMS – Oil Spill Effects/Recommendations	Evaluated ship source oil spill risk in the Cambridge Bay region and hosted an Oil Spill Preparedness and Response Workshop to understand the oil spill regulatory regime and discuss local concerns. A summary report was developed that included 29 recommendations to address local concerns; some have been implemented, others are ongoing.	Southern Victoria Island	TC	CEMS underway since 2016; oil spill CEMS assessment took approximately 1.5 years	Oil Spill report and resulting recommendations
CEMS – Impacts Of Icebreaking Activities On Caribou Migration, Food Security, And Hunter Safety	A voluntary measure was established to mitigate impacts from icebreaking on caribou migration/hunter safety/food security.	Large portion of Kitikmeot region along southern coast of Victoria Island	TC	Proactive Vessel Management (PVM)/CEMS under OPP (2016)	Ongoing monitoring. Notice to Mariners established to provide better communication between ice breaking vessels and the communities of Cambridge Bay, Kugluktuk and Gjoa Haven.
CEMS – Underwater Noise Impacts On Marine Wildlife	The following work has occurred/will occur with respect to underwater noise: collection and analysis of acoustic data (ongoing); community mapping exercise (completed); evaluation of underwater noise impacts in important areas (to be completed early 2026); and, collaborative development of recommendations to manage impacts in important areas (fall 2026).	Southern Victoria Island region near Cambridge Bay	TC	CEMS	Reports being prepared/recommendations being developed
CEMS – Impacts Of Vessel Wake On Coastal Erosion	Collaborated with researchers at University of Quebec at Rimouski and the Canadian High Arctic Research Station to: install erosion monitoring equipment; and, model shorelines exposed to vessel wake. Next steps include: evaluating management strategies that can address underwater noise and vessel wake; and, identifying future research and collaboration opportunities.	Cambridge Bay area	TC, University of Quebec at Rimourski, Canadian High Arctic Research Station	CEMS	Report has been prepared; more work is needed to develop recommendations

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OPP – Victoria Island Waterways Safety Committee	The Committee is chaired by the Ekaluktutiak Hunters and Trappers Organization and serves as a forum for guiding OPP work in the region (CEMS, Enhanced Maritime Situational Awareness (EMSA), and PVM) and facilitating discussion around waterway safety issues from various parties including the community of Cambridge Bay.	Southern Victoria Island, centered on Cambridge Bay	TC-CEMS/PVM/EMSA	TC-CEMS/PVM/EMSA	N/A
Inuit Marine Monitoring Program (IMMP)	The IMMP is an initiative aimed at tracking shipping activities in Nunavut waters, addressing environmental concerns and empowering Inuit communities through local knowledge and technology.	Nunavut	Nunavut Tunngavik Incorporated (lead) with support from Oceans North	Since 2017	Objectives involve data collection through deployment of Inuit marine monitors; real time tracking using AIS technology; and, community involvement
Ocean Networks Canada (ONC) – Cambridge Bay Observatory	ONC maintains a cabled observatory in the community of Cambridge Bay which consists of an onshore meteorological station and a shallow underwater cabled sensor network that collects baseline and long-series data for tracking the changing ocean and sea ice conditions. ONC is seeking funding and local interest to deploy a cabled hydrophone near Cambridge Bay (location TBD) to collect ongoing near real-time acoustic and monitoring data.	Cambridge Bay	ONC	In water since 2012	Local data collection
Enhanced Maritime Situational Awareness (EMSA) https://tc.canada.ca/en/campaigns/protecting-our-coasts-oceans-protection-plan/stronger-partnerships-indigenous-coastal-communities/expanding-enhanced-maritime-situational-awareness-program	Purpose is to provide near real-time vessel activity and other marine environmental information in local waters through a user-friendly web platform.	Pan-Canadian	OPP/TC	Initiative under OPP (2016)	EMSA Program As an example, users can set up “Geo-fences” with the program. This geofence will tell them when a vessel with an Automated Identification System (AIS) enters an area.
Environment and Climate Change Canada (ECCC)					
Program for Regional and International Shorebird Monitoring	Supporting data collection for birds using ECCC methodology, so that results feed directly into the national program. This places local results into a regional and national context.	Northern Baffin Island (Mine Site) and Islands in Foxe Basin	ECCC	Ongoing	Reports, data and scientific manual scripts (request if needed)
Seabird Distribution And Behavior Data	Collect seabird distribution and behavior data to understand interactions with shipping. This research is led by the	Northern Shipping Route and Foxe Basin, Northern Hudson Bay and Hudson Strait	ECCC	Ongoing	Reports, data and scientific manual scripts (request if needed)

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	Science and Technology Branch and academia, but at times with Baffinland's financial support as well.				
Field Stations Along The Proposed Southern Shipping Route	ECCC built and maintains field stations along the proposed southern shipping route, in part to enable long-term monitoring of the impacts. Not all of these stations are used every year, but a wide variety of wildlife data (e.g., bird species) have been collected at these sites.	Prince Charles Island, East Bay on South Hampton Island, Coats Island, Digges Island, Mill Island	ECCC	Ongoing	Reports, data and scientific manual scripts (request if needed)
Survey Coastal Habitats For Birds	Recent and historical work to survey coastal habitats for birds establishes baselines of abundance and distribution. ECCC has syntheses of what has been done in the Foxe Basin since the 1950s, for example.	Prince Charles Island, South Coast Baffin island and Digges Sound	ECCC	Ongoing	Reports, data and scientific manual scripts (request if needed)
Keewatin - Southern Baffin Island Long-term Water Quality Monitoring Data - Canada's North	Long-term freshwater quality monitoring data for over five sites in the Keewatin - Southern Baffin Island Basin for the past 15 years or longer for nutrients, metals, major ions, and other physical-chemical variables are included in this dataset. Monitoring is conducted by ECCC in collaboration with Parks Canada to assess water quality status and long-term trends, detect emerging issues, establish water quality guidelines and track the effectiveness of remedial measures and regulatory decisions.	Keewatin - Southern Baffin Island	ECCC, Parks Canada	Ongoing	Data and Resources (Keewatin - Southern Baffin Island Long-term Water Quality Monitoring Data- Canada's North - Open Government Portal)
Health Canada (HC)					
Substance Use and Addictions Program https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy/funding/substance-use-addictions-program.html	HC's Substance Use and Addictions Program (SUAP) provides contribution funding to other orders of government and to community-led, Indigenous and not-for-profit organizations for a wide range of innovative and evidence-informed projects across the continuum of care, from prevention and harm reduction to treatment and recovery. Many projects also offer a wide range of wraparound health and social services to the populations they serve, including access to primary and addictions care,	National	Substance Use and Addictions Program suap-puds@hc-sc.gc.ca	2023-2028, via 2023 call-out As of April 2025, SUAP is fully subscribed and does not have funding available to fund new or existing projects. HC is not planning any upcoming Calls	N/A

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	housing support, and mental health services.			for Proposals at this time	
Emergency Treatment Fund https://www.canada.ca/en/health-canada/services/substance-use/emergency-treatment-fund-2025.html	HC's Emergency Treatment Fund (ETF) is a contribution funding program that aims to provide urgent, targeted funding to municipalities and Indigenous communities to support rapid responses to the overdose crisis. Funding addresses urgent and immediate needs, as defined by the communities, to bolster local capacity and provide access to culturally-relevant, trauma-informed and evidence-based programs and services.	National	Controlled Substances and Cannabis Branch, Strategic Policy Directorate, Indigenous Affairs etf-fut@hc-sc.gc.ca	2024-2027 HC is not planning any upcoming Calls for Proposals under the ETF at this time	N/A
Budget 2025 **Northern and Arctic Health Assessment** https://budget.canada.ca/2025/home-accueil-en.html	To improve health care access and services, Budget 2025 announced the Government's intention for the Minister of Health and the Minister of National Defence, in collaboration with the Minister of Indigenous Services and the Minister of Northern and Arctic Affairs, to undertake a comprehensive assessment of health care and health infrastructure needs in the North, with the goal of identifying innovative ways to increase access to health care in northern communities and reduce medical travel costs through engagement with Northen and Arctic Indigenous Peoples. The assessment is to identify where current health services and infrastructure within territorial or community health systems could be expanded to support both community needs and Canadian Armed Forces operational needs (e.g., through shared-use arrangements), while respecting territorial/provincial jurisdiction and Indigenous governance.	North	HC, Department of National Defence, Indigenous Services Canada, Crown-Indigenous Relations and Northern Affairs Canada	TBD Engagement with territorial/provincial governments, as well as Indigenous leaders and communities, will take place from February to June 2026.	N/A
Natural Resources Canada (NRCan)					
Open Science and Data Platform (OSDP) Access the OSDP here: https://osdp-psdo.canada.ca/dp/en	A central repository for scientific publications, geospatial data, and regulatory information that can be used	The OSDP has a national geographic scope covering all of Canada and regionally specific data collections.	OSDP is led by NRCan with support from ECCC. OSDP provides access to records from a wide variety of contributing	OSDP was launched in March 2021 and has a current five-year operating	OSDP outputs, including science, data and regulatory information: • 10,290 Datasets • 145,581 Publications

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For more information, contact: osdp-psdo@nrcan-rncan.gc.ca	to inform federal assessment processes and understanding of cumulative effects.	Content collections organize data into areas of interest and are designed to support project-based or regional assessments. For example, the following page provides links to the regionally based content collections created by subject matter experts. Discover OSDP collections: https://osdp-psdo.canada.ca/en/collections	partners including from federal, provincial and territorial Governments, found here: https://osdp-psdo.canada.ca/en/contributors	period (2023-2028).	• 53,010 Monitoring Stations • 24,849 Development Activities • 161 Content Collections
Mary River mine fugitive-dust research: bridging western science, industry monitoring and Inuit Qaujimajatuqangit	This project (2024 Research License No. 02 013 24N-M) aims to develop and advance a toolbox of dust monitoring techniques for fugitive mine dust monitoring in Canada's Arctic. By evaluating ground-based techniques for mine dust monitoring, we aim to respond to community questions and industry challenges in monitoring fugitive mine dust. Fieldwork in 2025 involved the continued use of ground-based techniques (passive dry deposition collectors (Pas-DD) deployment and maintenance, snow profile sample collection and vegetation collection) which, as in 2024, was conducted both at locations on the Mary River mine site property and at locations identified by community members during consultation. The team plans to compare the performance of the Pas-DDs with the dustfall canisters currently deployed on-site. Through this work, the team aims to respond to questions related to how much dust, where is it going and what is in the dust in addition to identifying dust sources. The deployment of Pas-DDs and vegetation collection at the community	Currently working with Baffinland within the Mary River mine property in addition to working at sites identified by the community of Mittimatalik (Pond Inlet). These sites are in the vicinity of Milne Port with the addition of one reference site closer to Mittimatalik (Pond Inlet). There is interest in expanding this research to Steensby Port.	NRCan, Carleton University, Mittimatalik (Pond Inlet)	For Phase 1: April 1, 2024 – March 31, 2027 Currently making plans for a Phase 2 which would be more effects-based to respond to community questions about mine dust and expansion to sites around Steensby Port	Huntsman, P., Cleaver, A. E. & White, H. P. (2025). Mary River mine fugitive-dust research: bridging western science, industry monitoring and Inuit Qaujimajatuqangit. Geomatics Canada, Open File, 95, 6. Natural Resources Canada. https://doi.org/10.4095/ptg3cd26kr Huntsman, P., Cleaver, A. E., Berryman, E. J., Rickwood, C. J., Zagrtdenov, N. R., Jamieson, H. E., Martineau, C., Fenton, N. J. & White, H. P. (2025). Fugitive mine dust: evaluation of innovative monitoring and characterization techniques. Geomatics Canada, Open File, 94, 12. Natural Resources Canada. https://doi.org/10.4095/paevmnxvz Cleaver, A., Huntsman,P., Richardson, M., Merkosak, B., White, H.P., 2025. Mary river mine dust research: development of an Arctic-based mine dust monitoring toolbox. ArcticNet 2025, Calgary. Poster presentation. Cleaver, A., Huntsman, P. Pewatoalook, S., White, H.P., 2024. Tri-lateral development of an Arctic-based mine dust monitoring toolbox at the Mary River Mine. ArcticNet 2024, Ottawa. Poster presentation.

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	sites was determined with Mittimatalik (Pond Inlet) community members, incorporating knowledge from local hunters and land users. By comparing analytical results from the ground-based sample collection with Inuit observations and regional Earth observations, satellite imagery can be validated and a more holistic regional and temporal assessments can be conducted.				
Earth Observation for Cumulative Effects (EO4CE): Site Monitoring (Fugitive Dust)	Satellite imagery (Earth Observation, EO) provides a robust and repeatable means of viewing regional environmental characteristics around sites of interest. In cases of active and inactive mine sites, the environmental impacts of tailings, waste rock, and fugitive dust have become of significant interest due their potential influence on habitat and human health. By evaluating traditional multi-band imagery (e.g., Landsat, Sentinel-2) and new hyperspectral orbiting technologies (e.g., EnMAP), research to leverage spectrally distinct aspects of these materials is pursued and used to map tailings and fugitive dust distributions across a region. This provides an important source of information that can be used by both community monitoring programs and government regulatory and enforcement processes. Past projects have looked at EO-based detections of tailings from legacy abandoned mining operations in Nova Scotia, mapping the likelihood of tailings along wetlands and neighbouring watersheds. Other studies have looked at fugitive dust distributions at Arctic mine operations (such as Ekati and Mary River).	Work is presently occurring with Baffinland within the Mary River mine property and at sites on Inuit Owned Lands identified by the community of Mittimatalik (Pond Inlet). Many of these sites are in the vicinity of Milne Inlet. There is interest in expanding this research to Steensby Port before major development is initiated along this route, to provide a full regional understanding that includes both baseline and developmental stages.	NRCan, Saint Mary's University, Carleton University, North Baffin Outfitting, Mittimatalik (Pond Inlet)	EO4CE is presently in Phase 2	Janzen, D., Bourgon, J.-F., Brisco, B., Canisius, F., Chen, W., Choma, G., Drouin, H., Fernandes, R. A., Fraser, R. H., He, L., Hong, G., Landry, R., Latifovic, R., Lauer, K., Leblanc, S. G., Li, J., Li, Z., Lovitt, J., McFarlane-Winchester, M., Murnaghan, K.P., White, H.P., & Zhang, Y. (2020). EO baseline data for cumulative effects, year-end report (FY 2019/20). *Geomatics Canada, Open File*, 60, 36. Natural Resources Canada. https://doi.org/10.4095/326159 White, H.P., Chen, W. & Leblanc, S.G. (2022). Satellite observations for detection of dust from mining activities in a caribou habitat, Northwest Territories and Nunavut. *Geomatics Canada, Open File*, 71, Natural Resources Canada. https://doi.org/10.4095/330548 He, L., White, H.P. & Chen, W. (2023). Compounded impacts of global warming and anthropogenic disturbances on snowmelt in Northern Baffin Island. *Remote Sensing*, 15, 2, 1-17. https://doi.org/10.3390/rs15020313 Jewell, D.A., White, H.P. & Campbell, L.M. (2024). Automated detection of mine tailings via object-based classification of Sentinel-2 images. *Geomatics Canada, Open File*, 79, 4. Natural Resources Canada. https://doi.org/10.4095/pgw1ywkvvm Huntsman, P., Cleaver, A.E. & White, H.P. (2025). Mary River mine fugitive-dust research: bridging western science, industry monitoring and Inuit Qaujimajatuqangit. Geomatics Canada, Open File, 95, 6. Natural Resources Canada. https://doi.org/10.4095/ptg3cd26kr

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					Huntsman, P., Cleaver, A.E., Berryman, E.J., Rickwood, C.J., Zagrtdenov, N.R., Jamieson, H.E., Martineau, C., Fenton, N.J. & White, H.P. (2025). Fugitive mine dust: evaluation of innovative monitoring and characterization techniques. Geomatics Canada, Open File, 94, 12. Natural Resources Canada. https://doi.org/10.4095/paevmnxvz Cleaver, A., Huntsman,P., Richardson, M., Merkosak, B., White, H.P., (2025). Mary river mine dust research: development of an Arctic-based mine dust monitoring toolbox. ArcticNet 2025, Calgary. Poster presentation. Cleaver, A., Huntsman, P. Pewatoalook, S., White, H.P., 2024. Tri-lateral development of an Arctic-based mine dust monitoring toolbox at the Mary River Mine. ArcticNet 2024, Ottawa. Poster presentation.
Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)					
Nunavut General Monitoring Plan (NGMP)	The creation and implementation of the NGMP is mandated under Article 12.7.6 of the Nunavut Agreement, and legislated under subsection 227(1) of the *Nunavut Planning and Project Assessment Act*. The NGMP fulfills the requirement that "government, in cooperation with the Nunavut Planning Commission, shall develop and implement a plan for monitoring the long-term state and health of the ecosystem and socio-economic environment of Nunavut". The NGMP's current design does not lend itself to support the monitoring of cumulative and induced effects associated with resource development projects situated in Nunavut or adjacent regions. Work is underway to develop a comprehensive monitoring plan. The NGMP manages a proposal-based research program. Funding is provided through contribution agreements to support projects that advance knowledge	Nunavut Settlement Area	• NGMP **Secretariat**: Housed within CIRNAC's Nunavut Office. Will transfer to the Government of Nunavut on April 1, 2027 as part of the devolution of land and resources responsibilities. Manages the general monitoring plan's development and implementation. • NGMP **Steering Committee**: Co-manages the NGMP by setting priorities and provides guidance to the Secretariat. Consists of representatives from the Nunavut Planning Commission, Nunavut Tunngavik Incorporated, the Government of Nunavut, and CIRNAC on behalf of the Government of Canada.	The NGMP was established in 2012	**Metadata and data** Funded research projects maintain data management agreements with the Polar Data Catalogue, operated by the Canadian Cryospheric Information Network at the University of Waterloo. These agreements ensure that metadata and data records are stored in accordance with established standards. The Polar Data Catalogue can be accessed at https://www.polardata.ca/ **2010-2015 Strategic Plan** Outlines the NGMPs' mandate, vision, goals and milestones, performance management and governance (https://www.ngmp.ca/eng/1424180566400/1424180588026) **2012 Summary of Knowledge Reports for Valued Components** (available upon request) Valued components are aspects of the environment that have particular importance based on economic, social, cultural, community, ecological, legal or political concern in a given geographical area. Valued components are grouped into the ecosystemic and socio-economic categories. Their associated reports outline each valued component's relevance to Nunavut, credible data sources, indicator data, recommended monitoring priorities, and considerations for future monitoring initiatives. **2013 NGMP Monitoring Blueprint Compendium**

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	in priority areas. Projects that demonstrate strong partnerships, meaningful community involvement, and the incorporation of Inuit Qaujimajatuqangit and Inuit Knowledge receive particular attention.				Serves to provide insight into the current NGMP knowledge and information base, as well as guide further data collection, analysis and reporting activities among NGMP partners (https://www.ngmp.ca/eng/1424180769840/1424180806031) . **2018 NGMP Five-Year Review Final Report** (available upon request) The primary objective of this engagement is to examine NGMP in its entirety both within the context of expectations set out within the Nunavut Agreement and the *Nunavut Planning and Project Assessment Act* and that of its Steering Committee members and stakeholders. An outcome of the review is to provide recommendations for improvements to the NGMP.
Fisheries and Oceans Canada (DFO)					
Developing local capacity and methods for monitoring ballast water of commercial ships in the Canadian Arctic to better understand risks to marine biodiversity and improve mitigation measures	Ballast water discharge from ships is the main source for aquatic nonindigenous species (NIS) introductions globally. Ship activity has increased in the Canadian Arctic with global change and increased resource extraction. DFO is working collaboratively with communities to collect ballast water samples from ships arriving to Milne Inlet Port using project-specific protocols developed/tested during a pilot program in fall 2023 to understand biological risks to biodiversity posed by shipping and develop local capacity/methods for ongoing standardized ballast water discharge monitoring. Findings will be applicable to ballast water management in other areas of the Arctic, including future ports under development such as Steensby Inlet.	Eastern Arctic	DFO Science, Hunters and Trappers Organizations/Associations (HTOs/HTAs), Baffinland	2023-present	Report to be produced
Arctic Char data collection for Sam Ford Fjord	DFO Fisheries Management has provided support since 2018 for local fishers to collect data required to assess this stock. This work is a result of requests by the Clyde River HTO to the Nunavut Wildlife Management Board (NWMB) for an increase in the Arctic Char commercial	Clyde River, Eastern Arctic	Clyde River HTO, DFO Science, DFO Fisheries Management	2018-current	Arctic Char Stock assessment reports

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	quota of Sam Ford Fiord. The NWMB requires updated Science Advice from DFO to be able to make a decision on this request. Data collection has occurred in 2018, 2019, and 2020. Two more years of data collection are required before DFO Science can complete a stock assessment.				
Remote tagging of narwhals	Narwhals are an important resource to Baffin Island communities from spring to fall. Aerial surveys are conducted to estimate the size of the Admiralty Inlet, Eclipse Sound and East Baffin narwhal stocks in order to provide advice on sustainable harvest. Aerial survey estimates require correction for narwhals that are underwater and cannot be counted by survey observers. This correction is the proportion of time narwhals spend at the surface, which is best estimated using dive patterns of narwhals equipped with satellite tags during the same time as the survey. DFO equips narwhals with satellite transmitters to provide dive information for the aerial survey in the summer.	East Baffin Island	HTOs/HTAs, DFO Science	Ongoing	Research reports published when peer review of area survey data is complete
Sustainable development of community Greenland Halibut (GHL) fisheries in Eastern Canadian Arctic	This research program, which builds on extensive work by the project team in the Arctic since 2010, will use data derived from state of the art telemetry technologies to monitor the localized (near four coastal communities) and basin scale (along offshore banks) movements and connectivity patterns of one of the most important commercial fish, Greenland halibut. Coupling these telemetry data with community fisheries surveys, traditional tag recapture data, and unique mobile receiver platforms (narwhal bioprobes, commercial fishing gear, and autonomous vehicles) will allow the development of a novel capture-mark-recapture modelling framework. Derived data will unveil previously	Eastern Canadian Arctic	HTOs/HTAs, DFO Science	Research ongoing	Reports, database, stock assessment report

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	unknown movement behaviours of this deep-water species, and the developed framework will allow the first estimation of key Greenland halibut demographic parameters to advance management and better understand fisheries allocation strategies. Through equipping mobile and fixed monitoring platforms with an array of ocean sensors combined with historical/current transect data on pelagic zooplankton/fish biomass, the project will also generate abiotic and biotic data to understand the drivers of Greenland halibut and narwhal movements. Overall, this project will generate important information on fish movements that will be pivotal for regional fisheries management, while also monitoring the Baffin Bay narwhal population to improve knowledge on stock size and structure and community harvesting quotas for both species. Given the economic potential and importance of Greenland halibut and the cultural and health importance of narwhal to Northern communities, it is anticipated that this project will be key for shaping future sustainable management practices of resources in the region. This project continues to build an integrative framework to assist the growth of knowledge from combined telemetry and Indigenous Knowledge across the Arctic, and will develop a fisheries modelling framework that is globally relevant.				
Community-based marine mammal collections	Community-monitoring through collections of tissue samples from hunts organized by Nangmautaq (Clyde River) HTA for seals and whales. Samples are shipped to Winnipeg labs for analyses to determine population health and include: disease, feeding biomarkers, ageing, reproduction, and contaminants.	Eastern Arctic	HTOs/HTAs, DFO Science	Ongoing	Archived tissue samples go back to the 1980s and provide trends of population processes and are shared with academia and other government organizations (e.g., Northern Contaminant Program).

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	Archived tissue samples go back to the 1980s and provide trends of population processes and are shared with academia and other government organizations (e.g., Northern Contaminant Program).				
New Arctic Whales fishery interactions in Baffin Bay	Boat-based survey of Baffin Bay fishing activity to collect whale photos for identification, biopsy samples for biotracer analysis, and attach satellite transmitters to monitor fishery interactions and seasonal whale migrations. Aside from endemic marine mammals that reside in the Arctic year round, a group of whales termed “Arctic transients” are expanding their range northwards and increasing their residency period in Arctic waters - specifically, sperm and northern bottlenose whales. These two whale species are becoming increasing reliant on Arctic food webs and the resources they provide including anecdotal reports of high affinity to commercial fishing operations.	Eastern Arctic	HTOs/HTAs, DFO Science	Ongoing, end date not set	Research supports additional reporting such as: Pućko, M., Matthes, L.C., Kitching, E., Reimer, J., Vandenbyllaardt, L., Ciastek, S., Nakashuk, C., Hedges, K., Kuzyk, Z., Capelle, D., and Michel, C. 2025. An ecosystem-based approach in the eastern Arctic: KEBABB/S (Knowledge and Ecosystem-Based Approach in Baffin Bay/Barrow Strait) 2023 expedition report. Can. Manuscr. Rep. Fish. Aquat. Sci. 3303: vii + 53 p. https://doi.org/10.60825/4ywb-7386
Arctic char data collection	DFO supported exploratory Arctic Char fisheries near Mittimatalik (Pond Inlet) by working collaboratively on a fishing plan and submitting to the NWMB for approval. Fisheries Management has provided support since 2013 for local fishers to collect data for five different exploratory waterbodies . Support for these fisheries include contracts, in-kind support, licensing, and sampling materials. DFO participated in sampling in 2017. The five years of data collection required for a stock assessment has been completed for three of five waterbodies. It is currently unclear whether enough data has been collected for the other two waterbodies to undergo individual stock assessments. Ageing of otoliths and data analysis for a full stock assessment	Eastern Arctic (Mittimatalik/Pond Inlet)	HTOs/HTAs, DFO Science, DFO Fisheries Management	2017-present	Stock Assessment Reports

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	is required. DFO Science has also been conducting independent fisheries sampling to support this work in two of the five waterbodies.				
Narwhal Aerial Surveys	Aerial surveys of narwhal from the East Baffin Island, Eclipse Sound, and Admiralty Inlet narwhal stocks	Eastern Arctic	HTOs/HTAs, DFO Science	2020-present	Research report to be produced after peer review of area based surveys.
Narwhal passive ecosystem monitoring in Tremblay Sound	Narwhals return to their summering grounds every summers. However, the function of the summering grounds and their habitat requirements are still unclear. This project builds on previous years of narwhal monitoring and data gathering in Tremblay Sound.	Eastern Arctic	HTOs/HTAs, DFO Science	2017-2021/ongoing	Research report to be published
Exploratory Fisheries in Mittimatalik (Pond Inlet)	Development of necessary data to assess sustainability of harvest of Arctic Char fisheries in the around Mittimatalik (Pond Inlet). Provides habitat use information for Fisheries Protection Program decisions.	Mittimatalik (Pond Inlet)	HTOs/HTAs, DFO Science	2010-present	Stock Assessment, research
Killer whale satellite tagging, biopsy, photo ID, acoustics and foraging behavior	Killer whales are top predators and their presence in the Canadian Arctic has been increasing over the past several decades. DFO runs an ongoing project to learn more about killer whale ecology and demographics across the region. Project locations include the Eclipse Sound Area, Admiralty Inlet, and Cumberland Sound. Field work activities take place during the summer months and include deploying satellite tags, collecting skin and blubber biopsies, collecting photographs for photo identification studies, and will include dedicated collection of bioacoustics and behavioral data. Objectives are to use these data in various combinations to learn more about killer whale diet, movements and distribution, relatedness to other North Atlantic and global killer whale populations, social structure, population size and trends, and acoustic behavior related to foraging.	Eastern Arctic	HTOs/HTAs, DFO Science	2021-present	Research report to be published

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Marine fish and invertebrate biodiversity and fishery potential surveys near Nunavut communities	Stratified random bottom trawl surveys are conducted near Nunavut communities to assess and monitor benthic biodiversity and identify potential opportunities for subsistence or commercial fishery development. Longlines and traps, as appropriate, are used as alternate gear types. Bottom trawling requires equipment that is not readily available in Nunavut communities while longlines and traps can realistically be used from existing community boats or through the sea ice in winter. In combination, the bottom trawl provides a robust assessment of the benthic community while longlines and traps provide data on catch rates and composition that would be realistic for local fishers. Oceanographic data are collected together with fishing to examine relationships between environmental conditions and community composition and catches. Data are used to assess the distribution and abundance of individual species, to identify harvesting opportunities, and for biodiversity reporting and monitoring to meet international commitments by Canada. Data are available to the HTO to support applications and activities related to the New Emerging Fisheries Policy, the process that is followed to develop new commercial fisheries.	Eastern Arctic, Pond Inlet, Artic Bay Area	HTOs/HTAs, DFO Sci Aerial survey and telemetry of ice seals, 2022-25	Ongoing	Research report to be published
Aerial survey and telemetry of ice seals, 2022-25	Spring surveys of ice seals over the Tallurutiup Imanga National Marine Conservation Area in conjunction with Government of Nunavut Wildlife Division's aerial spring surveys of polar bears in the Lancaster Sound region. Combining predator (bear) and prey (seal) surveys assists with modeling ecosystem dynamics and better understand demographic projections	Eastern Arctic	HTOs/HTAs, DFO Science, Government of Nunavut	2022-2025	Research, reports

Program Name	Summary	Geographic Scope	Participants / Members (Identify lead/roles)	Duration (Start-End Date, No. of active years)	Outputs (Reports, Database, etc.)
	with loss of sea ice and climate warming. Capture and tagging of seals determines haul-out duration in order to develop availability corrections for the surveys and inform seasonal space-use patterns.				
Walrus movements, distribution and stock/population structure	Atlantic walrus (*Odobenus rosmarus rosmarus*) occur as two genetically distinct populations in the eastern Canadian Arctic: the High Arctic and Central Arctic populations. Both of these populations are subdivided into three stocks for management purposes, although current stock delineations have been challenged by recent telemetry and genetics data. To resolve uncertainty surrounding the distributions and movements of Atlantic walrus in Canada (and Greenland), we are conducting studies on walrus movements (satellite telemetry; planned for summers 2022-23), long-term distribution (trace element concentrations and isotope ratios in annual growth layers of tusks; ongoing), and genetics analysis of skin biopsies and hunter-provided samples (ongoing). These data will inform whether current walrus stock divisions are appropriate.	Eastern/Central/High Arctic	HTOs/HTAs, DFO Science	2022-2023	Research report to be published
Development of community-based monitoring for aquatic invasive species (AIS) in the Canadian Arctic - preparing for increased shipping related to resource development and climate change	In preparation for expected increases in resource development, reduced sea ice extent and associated increases in shipping traffic in the Canadian Arctic, this project focusses on the development of community-based monitoring that will allow for early detection of aquatic invasive species (AIS) and characterization of baseline coastal marine biodiversity. This will extend current research efforts by DFO and the Canadian Aquatic Invasive Species Network (CAISN) and include: 1) Identification and ranking of key ship-mediated AIS for early detection and	Canadian Arctic Wide	HTOs/HTAs, DFO Science	Ongoing	Research report to be published

Program Name	Summary	Geographic Scope	Participants / Members (Identify lead/roles)	Duration (Start-End Date, No. of active years)	Outputs (Reports, Database, etc.)
	monitoring, and geographic locations with highest probability for establishment; 2) Development of biodiversity monitoring using environmental DNA (eDNA) in high risk ports; 3) Establishment of a community-based monitoring network/capacity. Field research and training will be focussed on current and future high risk ports (e.g., Milne Inlet, Deception Bay, Iqaluit and Churchill).				
Social learning and culture as resilience traits in beluga whales in a changing Arctic	A primary concern in the conservation of Arctic fauna is whether Arctic species will be able to adapt to current climate change and to the projected increase in human activities this will bring. Recently, this has become a question not only of the capacity of species to adapt but also of whether they can adapt quickly enough to keep pace with the current and projected changes. It is hypothesized that learning ability, group living, and the social learning and transmission of knowledge and behaviors may be key to this question and to beluga whale resilience in general. This work proposes to study these behaviors in wild populations of beluga whales in the context of measurable impacts from a changing Arctic. Specifically, field research will be conducted to evaluate how quickly behaviors change in response to novel stimuli and situations, and address the question of whether long-established cultures may be a hindrance to the rapid behavioral and ecological shifts that may be needed in a changing Arctic. A field camp will be set up on Somerset Island, Nunavut, to observe beluga whales in their natural environment. Using an array of field observation techniques including drones, cameras, shore based observations and passive acoustics, whale behaviour will	Central Arctic, Resolute Bay Area	HTOs/HTAs, DFO Science	2020-present	Research report to be published

Program Name	Summary	Geographic Scope	Participants / Members (Identify lead/roles)	Duration (Start-End Date, No. of active years)	Outputs (Reports, Database, etc.)
	be recorded in relation to social context, and naturally present external stimuli, such as predators.				
Killer whale – Bowhead whale predatory-prey dynamics	Deployment of acoustic recorders, ship-based surveys, focal follows, telemetry, and lower-trophics sampling will be conducted in the Prince Regent Inlet and Gulf of Boothia ecoregion to determine killer whale and bowhead whale predator-prey dynamics. Results will inform modeling of marine ecosystem resilience with changing sea ice and bowhead whale spatial and foraging shifts required to ameliorate risk of killer whale predation.	Central Arctic, Resolute Bay Area	HTOs/HTAs, DFO Science	Study ongoing	Research report to be published
Sea Ice Biological Surveys	Over the past decade, DFO carried out multiple surveys of biological conditions and productivity associated with sea ice near Resolute Bay and at different locations in McDougall Sound, Wellington Channel and Lancaster Sound. This project develops an inventory of the data collected during these studies and identifies regions of high productivity.	Central Arctic, Resolute Bay Area	HTOs/HTAs, DFO Science	Ongoing	Research and monitoring reports contributing to long term databases. Research supports reports such as: “Public Report – Canada’s Oceans Now: Arctic Ecosystems, 2019”
Understanding the impact of increased shipping and icebreaking on marine mammals in Hudson Strait and Foxe Basin	Marine mammal survey in Hudson Strait and has a funded CSRF project "Understanding the impact of increased shipping on marine mammals in Hudson Strait and Foxe Basin”	Eastern/Central Arctic	DFO Science, HTOs/HTAs	2026-end date not yet announced	Research reports, cumulative effects research
Hudson Strait and Foxe Basin Walrus Tagging	Walrus project is starting in 2026 with satellite tags set to be deployed on walrus within the region. Tagging data will help better understand walrus movements.	Eastern/Central Arctic	DFO Science, HTOs/HTAs, Kinngait, Kimmirut, Igloolik, Sanirajak	Starting 2026 end date not yet known	Research report to be published
Parks Canada					
Tallurutiup Imanga National Marine Conservation Area (TINMCA) Research and Monitoring Strategy (RMS)	The RMS is in the final phase of completion. The RMS is founded on a multi-phase, in-person engagement process conducted in the five communities adjacent to TINMCA to identify Inuit research and monitoring priorities.		Co-developed by Parks Canada, Qikiqtani Inuit Association, DFO and TC		

Program Name	Summary	Geographic Scope	Participants / Members (Identify lead/roles)	Duration (Start-End Date, No. of active years)	Outputs (Reports, Database, etc.)
	Consultations with researchers and stakeholders are scheduled for spring 2026 to gather the last comments and feedback. The final strategy is expected to be approved by the Aulattiqatigiit Board in summer 2026. Implementation of the RMS through monitoring programs is expected to begin in 2027.				
Tallurutiup Imanga Underwater Noise Baseline Pilot 2021	The Arctic marine environment is experiencing significant changes due to climate change and increasing human activities making the monitoring of marine species essential for understanding these impacts and supporting management of Tallurutiup Imanga National Marine Conservation Area. In this context, a pilot project was conducted at two sites near Arctic Bay during September and October 2021 to detect marine mammals and vessel noise, as well as to measure underwater sound levels. The results showed that ringed seals and narwhals were detected on more than half of the days at both sites, while bowhead whales were observed less frequently. Vessel noise was detected on nearly half of the days at one site and on two days at the other, with its presence contributing to increased underwater sound levels above natural background conditions.	Arctic Bay/Victor Bay		Completed **Parks Canada recommends that these data should not be interpreted, as they were collected under atypical COVID shutdown conditions, over a short study period, and without replication.**	