15 Years of Wildlife Management in the Nunavik Marine Region

The Nunavik Marine Region Wildlife Board – 2008 to 2023

This report is dedicated to the memory of remarkable individuals who have made immeasurable contributions to marine wildlife management in Nunavik and whose wisdom and voices we greatly miss:

Daniel Epoo
Mark O'Connor
Harry Okpik
Josepi Padlayat
Putulik Papigaqtuk
Quitsaq Tarriasuk
Robbie Tookalook

This report can be cited as:

Nunavik Marine Region Wildlife Board (NMRWB). 2025. The Nunavik Marine Region Wildlife Board: 15 Years of Wildlife Stewardship in the Nunavik Marine Region. Prepared by Polynya Consulting Group for the NMRWB. Inukjuak, QC. 92 pages.

Cover Photo: Ariel Valade

Acknowledgements

This report was prepared by Polynya Consulting Group for the Nunavik Marine Region Wildlife Board (NMRWB), with the support and input of NMRWB Board members and staff, past and present. Reports and information were provided by Tommy Palliser, Mark Basterfield, Frankie Jean-Gagnon, Sarah Khan and Rynee Kokiapik. Analysis and synthesizing of the information was led by Danni Dickson and Andrea Hicks. The draft of the report was written by Danni Dickson, Andrea Hicks and Kaitlin Breton-Honeyman. Frankie Jean-Gagnon and Sarah Khan contributed the research highlights sections and Mikhaela Neelin provided the Anguvigaq sections. Editing and finalizing the report was a combined effort of Kaitlin Breton-Honeyman, Mark Basterfield, Frankie Jean-Gagnon, Sarah Khan, Rynee Kokiapik, Andrea Hicks and Agata Durkalec. Project coordination was led by Kaitlin Breton-Honeyman. Expert reviews of the report were done by knowledgeable individuals, including those who were part of the establishment of the NMRWB – Gregor Gilbert, Qajaq Robinson, Robert Moshenko, Stas Olpinski and Jean-Pierre Savard.

POLYNYA
CONSULTING GROUP

Photo: Andrew Epoo

Table of Contents

List of Figures

List of Tables

Introduction

The work of the Nunavik Marine Region Wildlife Board is very important and ongoing and we do what we can. We have improved our working relationships with co-management partners. We build on the work of the past and continue to improve wildlife management in Nunavik. We know how to manage our animals. Our ancestors and their knowledge are why we are here and how we have survived as Inuit.
– IOLA METUQ, NMRWB CHAIRPERSON

The formation of the NMRWB in 2008 was the beginning of a true and effective co-management regime between resource users and government. It set the basis for meaningful and sincere participation and leadership of Nunavik Inuit in marine wildlife stewardship. – ROBERT MOSHENKO, NMRWB MEMBER

We are breaking new ground with our bottom-up Inuit led approach to wildlife management that is supported by government and researchers and by the work that we are doing with polar bear and beluga. We already know how to manage our wildlife and now are showing others. – TOMMY PALLISER, NMRWB EXECUTIVE DIRECTOR

The marine area that stretches along the Hudson Bay, Hudson Strait and Ungava Bay coasts is an integral part of the Nunavik Inuit homeland. For millennia, and continuing to today, Nunavik Inuit have relied on this vast marine region for sustenance; for connection to ancestors, culture, and identity; as a platform for travel. Nunavimmiut have lived on and harvested from the many islands. Wildlife has provided more than nutrition – it is a source of tools, clothing, shelter and bedding, medicine, games and other uses.

When the James Bay and Northern Québec Agreement was signed in 1975, the rights of Nunavik Inuit in the offshore area of the Nunavik homeland were not addressed and were put aside to be addressed in the future negotiations. After decades of advocacy from Nunavik Inuit, and negotiations between Canada, Nunavik Inuit (through Makivvik) and the Government of Nunavut, the Nunavik Inuit Land Claims Agreement (NILCA) was signed by the Governments of Canada and Nunavut and Makivvik[1] in December 2006 and came into force on July 10, 2008. The NILCA affirms and defines Nunavik Inuit rights, title, interests, and jurisdiction in the Nunavik Inuit Settlement Area (NISA) (the offshore area of Nunavik Inuit territory) (Figure 1). The NILCA further provides for a regime for co-management of lands, waters, resources, including wildlife and use in the NISA, more specifically in the Nunavik Marine Regions (NMR) which is a portion of the settlement area (Figure 2). The NMR, includes parts of James Bay, Hudson Bay, Hudson Strait, and Ungava Bay, and the larger

1 Makivvik is the Inuit Treaty Organization and rights-holding body for Nunavik Inuit.

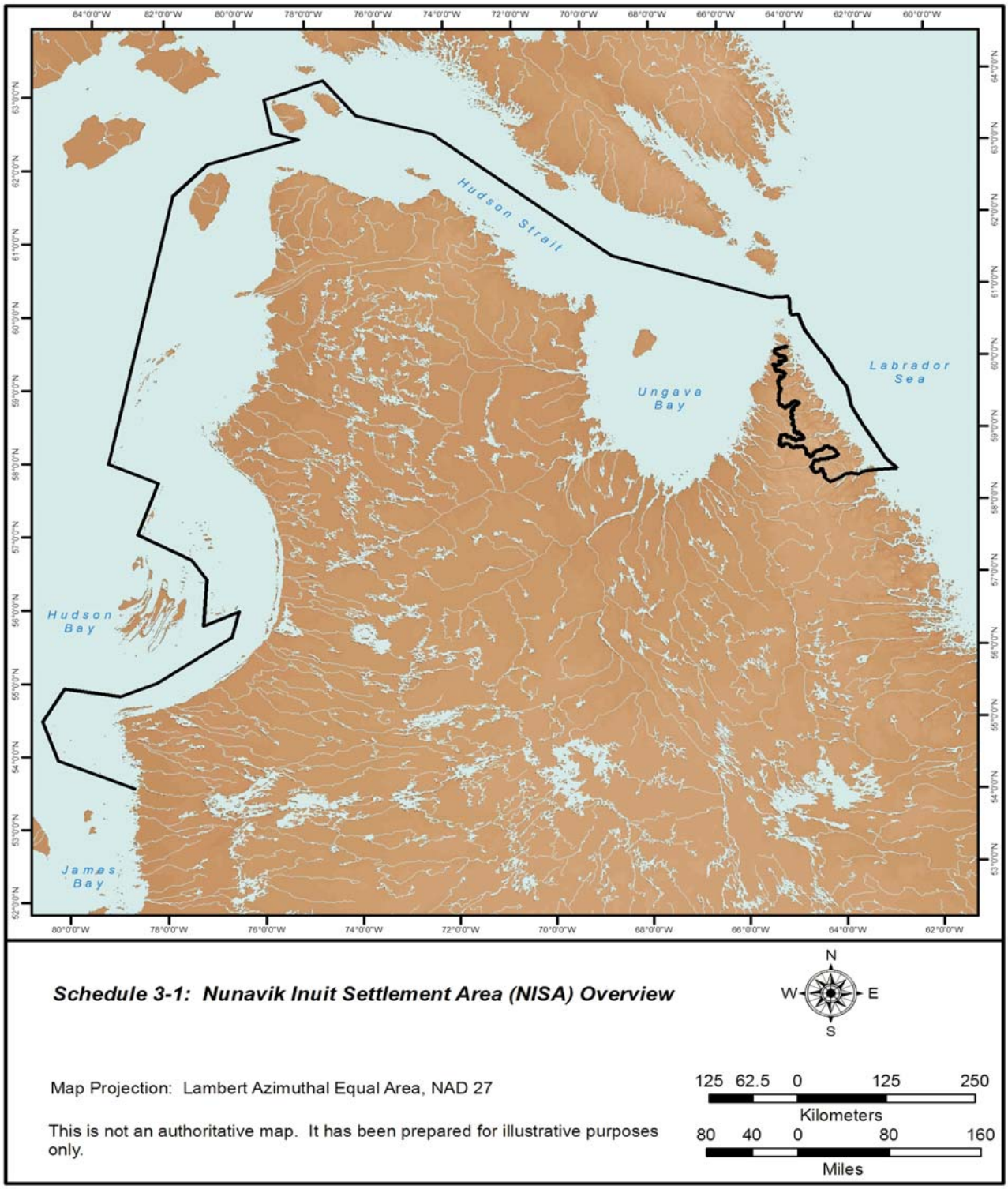


FIGURE 1. Map of the Nunavik Inuit Settlement Area (NILCA 2006, Schedule 3–1)

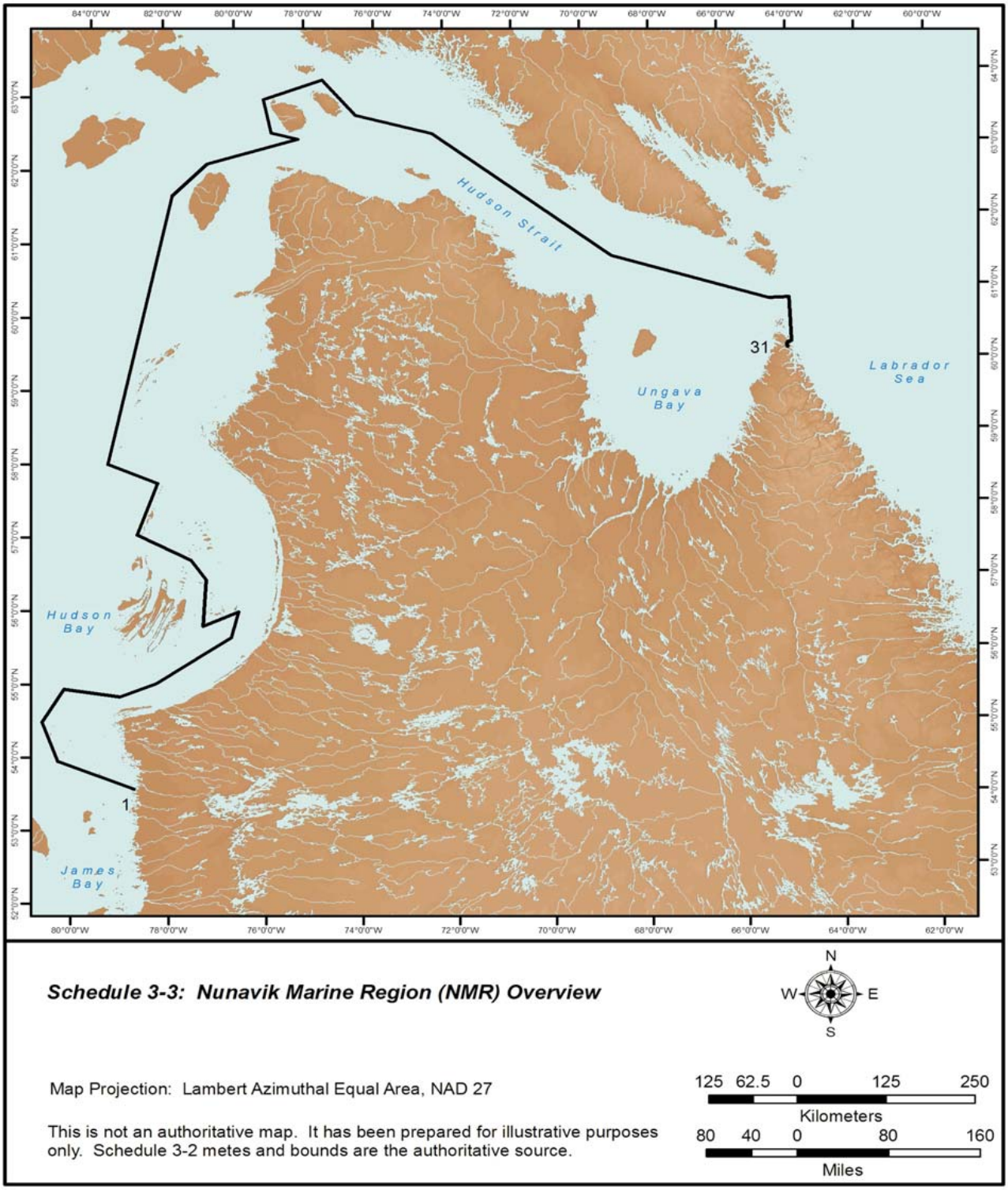


FIGURE 2. Map of the Nunavik Marine Region (NILCA 2006, Schedule 3–3)

NISA includes a portion of northern Labrador waters.[2] The NISA, as well as portion of the NMR, overlap with neighbouring Treaty settlements areas of other Inuit and Indigenous peoples. The NMR overlaps with the Nunavut Settlement Area as defined in the Nunavut Land Claims Agreement, the Eeyou Marine Region as defined in the Eeyou Marine Region Land Claims Agreement, and the Labrador Inuit Settlement Area as defined in the Labrador Inuit Land Claims Agreement. Through the various land claims, including in them reciprocal agreements between the Nunavik Inuit, the Inuit of Nunavut, Labrador Inuit and the Cree of Eeyou Istchee, have defined rights and interests in these areas of overlapping including how to manage resources, including wildlife management. The area of overlap between the NMR and EMR is defined at Article 28 of the NILCA. Areas of overlap with Nunavut Inuit at Article 27 and with the Labrador Inuit at Article 29.

With respect to land ownership, the NILCA also affirms Nunavik Inuit sole (or joint in the areas of overlap) ownership over 80% of the islands in the NMR, totalling 5,341.6 square kilometers.

In addition to Nunavik Inuit rights being undefined in the offshore prior to the NILCA, Nunavik Inuit rights to self-regulation, and participatory rights in government decision making about lands and resource in the NMR was as unclear. A significant contribution of the NILCA is its establishment of co-management regimes for the NMR. The Nunavik Marine Region Wildlife Board (NMRWB or "the Board") is one of the three institutions of public government established by the NILCA. The NMRWB serves as the main instrument of wildlife management in the NMR and the main regulator of access to wildlife. This includes responsibilities related to research, harvest regulation, and habitat protection. Geographically, the NMR includes the marine areas, islands, lands, and waters within the boundary shown on Figure 2.

This report celebrates the first 15 years of the NMRWB and endeavours to acknowledge the people, processes, and strides that has made by the Board. The NMRWB held its first meeting in March 2009, and since that time, the Board has worked diligently to grow its capacity, build relationships, build community confidence and to fulfil its mandate.

In this report we present the major activities and accomplishments of the Board from its establishment in 2008 until the end of March 2023. This report was carried out by gathering and compiling the NMRWB's annual activity reports, management documents, and research presentations and reports. This information was analysed and synthetized into an illustrative summary of accomplishments.

2 The Labrador portion of the Nunavik Inuit Settlement Area is excluded from the NMR.

This report is organized into five sections based on the Board's mandate and activities:

1. Board, Staff, and Operations
2. Co-Management Partnerships[3]
3. Wildlife Co-Management
4. Research Funding
5. Public Engagement and Communications

Wildlife management in Nunavik is a complex and dynamic process, with many of the wildlife species found in the NMR being migratory and spanning between jurisdictions. As such the responsibility to manage is shared with other adjacent institutions and governments, and rights-holders. As such the mandate of the NMRWB is similarly complex and challenging; however, the last 15 years have seen many valuable accomplishments realized by the Board. We are proud to reflect on and share the NMRWB's work to date.

3 Since the NMRWB works with numerous governments, organizations, and agencies, these entities are referred to herein by their respective acronyms. Each entity is fully named at its first reference and its associated acronym is provided; a comprehensive list of acronyms is provided in Appendix A for reference.

Photo: Carson Tagoona

SECTION 1

Board, Staff, and Operations

An institution of public government, the NMRWB is an independent decision-making body established in accordance with Article 5 of the NILCA, with its mandate defined by Article 5 as well as other sections of the NILCA. While members of the NMRWB are appointed for four-year terms by governments and Makivvik, they are not employees or agents of those organizations. Board members act independently and have a duty of loyalty to the Board and its mandate as outlined in the NILCA. The NMRWB is comprised of seven appointed members:

- Three by Makivvik,
- One by the Federal Minister responsible for fish and marine mammals (Fisheries and Oceans Canada; DFO),
- One by the Federal Minister responsible for Canadian Wildlife Service (Environment and Climate Change Canada; ECCC), and
- One by the Government of Nunavut Minister responsible for Department of the Environment (GNDOE).

The seventh, the chairperson, is nominated by the members, and appointed by the federal Minister of DFO in consultation with the Minister of ECCC and GN Minister of Environment.

The members of the Board bring a wealth of expertise to the NMRWB, including fisheries and wildlife research, management, and conservation, renewable resource development, and governance, as detailed below in Section 1.1. The success of the NMRWB over the years would not have been possible without the hard work, commitment, and dedication of Board members.

The work of the Board is supported by a team of qualified and dedicated staff members, led by an Executive Director. The Board originally operated with a staff team of five individuals, but since the new NILCA Implementation Plan 2021–2031 came into effect and brought in more funding in 2021, the Board expanded to seven staff positions. The staff are responsible for the effective operation of the NMRWB as directed by the Chairperson and Board. Further, the NMRWB staff support Board decision making on wildlife management issues by instituting processes to ensure the Board has relevant and up to date information to support Board decision making. The specific roles and responsibilities of the NMRWB staff, and the dedicated individuals who have filled these roles over the last 15 years, are detailed below in Section 1.3.

1.1 BOARD MEMBERS

The individuals who have provided their expertise, guidance, and decision making as Board members for the NMRWB over the last 15 years are directly responsible for the accomplishments and progress achieved for Nunavik wildlife management. The NMRWB is especially fortunate to have had long-standing members on the Board (as illustrated on Figure 3 with brief biographies in Table 1), providing consistency and efficiency in implementing the Board's mandate. The NMRWB membership has included Elders who contribute an immense wealth of knowledge to each meeting. This focus on Traditional Knowledge integration is further illustrated through several key research studies undertaken by the Board (and detailed herein).

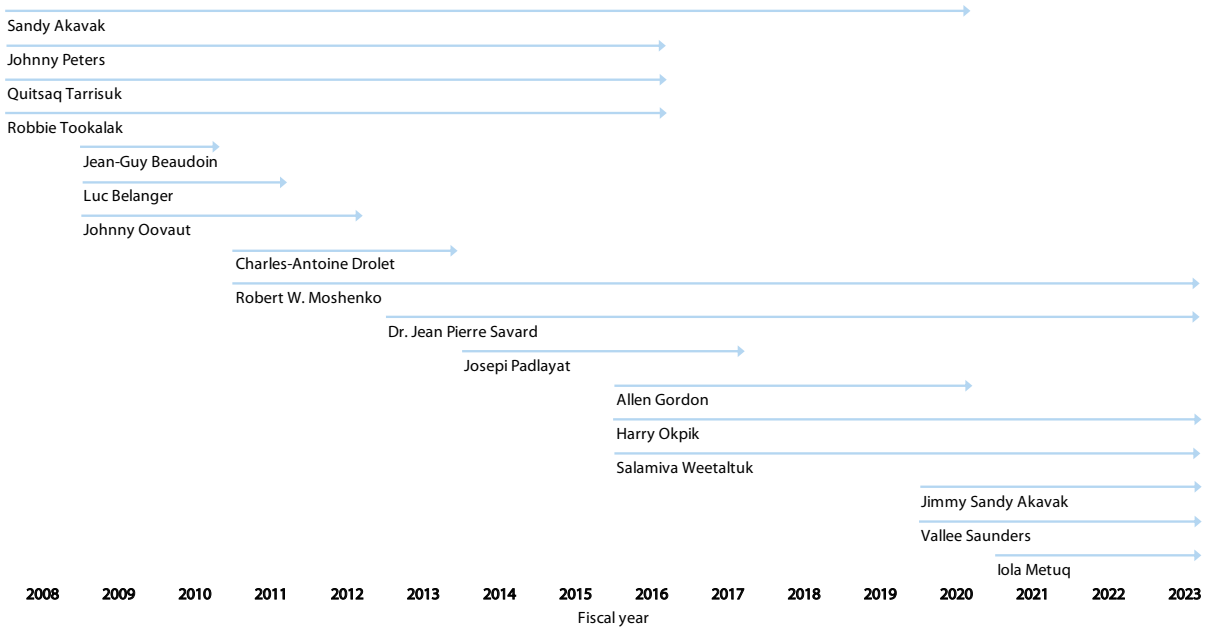


FIGURE 3. Board membership timeline

NMRWB Board Members

Sandy Akavak, Government of Nunavut Appointee: 2008–2020

Sandy Akavak lives in Kimmirut, Nunavut, where he was born and raised. In 1994 Sandy retired from the Royal Canadian Mounted Police after having served as a special constable for 25 years. From 1999 to 2016 he worked rehabilitating, counselling and teaching Inuit inmates how to survive on the land. Sandy received a Queen's Jubilee Award in 2012. He currently works as an Elder Advisor for the Department of Justice in Iqaluit.

Johnny Peters, Makivvik Appointee: 2008–2016

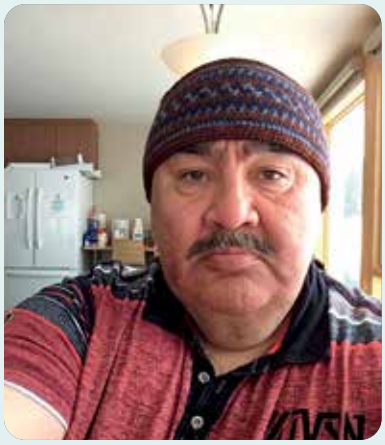
Johnny Peters was born in 1939 in the vicinity of present day Kangirsuk, Nunavik and spent his boyhood learning the traditional skills of a hunter and fisherman. Johnny has been extensively involved in Inuit political organizations, including the Co-op, Inuit Tapirisat of Canada, Nayumivik Landholding Corporation, and the Northern Quebec Inuit Association (now Makivvik). Johnny was deeply involved in the creation of James Bay and Northern Quebec Agreement (JBNQA) and was one of the signatories to the NILCA. Johnny was elected Makivvik Vice President responsible for Renewable Resource Development and served in this position for over 20 years and was chief negotiator of the Nunavik Land Claim Agreement for Nunavik Inuit.

Quitsaq Tarrisuk, Makivvik Appointee: 2008–2016

Quitsaq Tarrisuk, born in 1935, worked in his youth as a lead hunter and tour guide near present day Ivujivik for visitors from all over the world. He then worked as a fur trader for over 15 years. In 1993 Quitsaq trained in furnace repair and worked at the Kativik Municipal Housing Bureau for 6 years. He was Chairman of the Board of the Ivujivik Co-op from 1995 to 1997 and a Municipal Council member in Ivujivik.

Robbie Tookalak, Makivvik Appointee: 2008–2016, Vice-Chairperson 2009–2016

Robbie Tookaluk was raised north of present day Kuujjuaraapik, Nunavik, and then helped create and lived in Umiujaq in the 1980s. In the 1970s, Robbie was instrumental in the negotiation JBNQA. He also played an integral role in campaigning for funds to establish the community of Umiujaq. He was the mayor of Umiujaq and held many other executive positions in Nunavik.



Johnny Oovaut, Chairperson: 2009–2012

Johnny Oovaut was born and grew up in and around Quaqtaq. He has been a leader in his community and involved in wildlife management for decades, including as a long-time president of the Anguvigaq of Quaqtaq. Johnny has been involved in research and management related to walrus, polar bears and seals and has been advocating for Inuit rights for over 40 years. During his time with the NMRWB, he helped to give the NMRWB its Inuktitut name (Tariuqmiutalirijiit), create the first logo (by Putulik Ilisituk), establish the funding agreements with the Anguvigait and determine employment benefits.

Robert W. Moshenko, DFO Appointee: 2011–2023, Vice-Chairperson: 2016–2023

Robert Moshenko, born and raised on a family farm in southwest Manitoba and educated at University of Manitoba, started his career as a high school science teacher. He then moved to work as a Fisheries Biologist for a few years with the Manitoba government and then joined the Department of Fisheries and Oceans (DFO) for the balance of his career. Upon his retirement, and with over 30 years of experience as a biologist working in the Arctic, he served as a member on the Gwich'in Renewable Resources Board and on the Nunavut Wildlife Management Board before his appointment to the Nunavik Marine Region Wildlife Board. He has always had close ties to land, water and wildlife resources.

Dr. Jean Pierre L. Savard, ECCC (CWS) Appointee: 2013–present

Jean-Pierre Savard was born in Lévis, Quebec and holds a Bachelor's Degree in Biology from Laval University, a Master's Degree in Zoology from the University of Toronto and a PhD in Zoology from the University of British Columbia. Jean-Pierre began working as a biologist in 1977 for the Canadian Wildlife Service, and as a Research Scientist from 1992 until he retired in 2012. He has extensive expertise in ornithology and has sat on many different committees relating to the recovery of endangered bird species.

Josepi Padlayat, Chairperson: 2014–2017

Josepi Padlayat, who was born in Salluit, travelled south to be educated at the Ottawa Technical School. In the 1960s, at a time when very few Inuit people spoke English, he began his professional career as a translator. Josepi was instrumental in the development of the communications network in Nunavik, especially through his position as President and Chairman of Taqramuit Nipingat Incorporated.

Allen Gordon, Makivvik Appointee: 2016–2020

Allen Gordon began his working career as a research student at the Makivvik's Nunavik Research Center. While there, he also managed the start-up of an Arctic char fish hatchery in the community of Kuujjuaq. Allen has won several awards of recognition, including the Romeo Leblanc Responsible Fisheries Award in 2002. He is currently the Executive Director of the Nunavik Tourism Association, where he works to enhance and support tourism development in the region.

Harry Okpik, Makivvik Appointee: 2016–2024

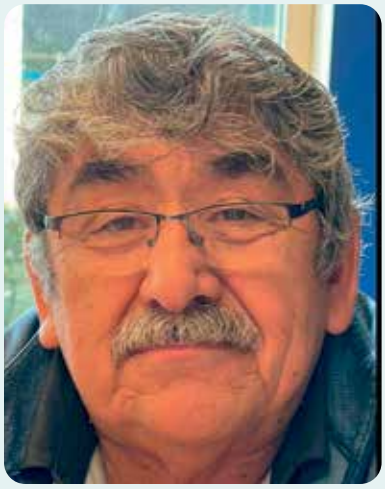
Harry Okpik was born and lived in the community of Quaqtaq. Harry worked for Makivvik during the implementation of the JBNQA. He also had a strong background in translations. Harry was a long time Uumajuit Warden for the community of Quaqtaq, ensuring all sport hunters and fishermen follow the applicable wildlife regulations. He was an active and respected member of the community, an accomplished hunter providing meat for his family and for his dog team, and a husband and father of four.

Salamiva Weetaltuk, Makivvik Appointee: 2016–2024

Salamiva Weetaluktuk was born in Kuujjuaraapik and later returned to the community to live and work, after schooling and teaching in Akulivik for a number of years. She was a teacher of Inuktitut and later a translator, working in schools and with the travelling court. She has served in a number of political positions, including as a member and Vice President to Sakkuq Landholding Corporation, municipal council, and President of the Anguvigaq of Kuujjuaraapik (LNUK). Salamiva has a very strong sense of community service and served the Search and Rescue team and volunteer fire fighters. She is a keen and well-respected hunter and fisherwoman, whose freezer is always full of country food, and wife and mother to seven.

Jimmy Sandy Akavak, Government of Nunavut Appointee: 2020–present

Jimmy Akavak is currently the Director of Marketing for Nunavut Eastern Arctic Shipping and was previously a sergeant with the Royal Canadian Mounted Police (RCMP). After joining the RCMP as a special constable, he became the first Inuit corporal (1998) and later the first Inuit sergeant (2007). He is known for his pioneering work in community services, victim support, and crisis management. Mr. Akavak has an extensive volunteer record, including work with at-risk Inuit youth, teaching Inuit hunting and survival practices, advisor to Katimavik, and Search-and-Rescue Coordinator. He received the Order of Nunavut in 2012.



Vallee Saunders, Makivvik Appointee: 2020–2024

Vallee Saunders lives and works in Kuujjuaq where he is currently a Project Coordinator for Nayumivik Landholding. He spent the earlier years of his career in a number of public service positions, including working for the community council, as a social worker, and as a police officer for the Quebec Provincial Police. He then spent over 20 years as a Wildlife Officer with Quebec Wildlife Protection, working to ensure the laws and regulations governing wildlife in Quebec were adhered to and contributing to the protection of wildlife and their habitats.

Iola Metuq, Chairperson: 2021–present

Originally from Nunavut, Iola lives in Inukjuak where he is retired from the St-Thomas Anglican Church. He worked for many years as a civil servant for the territory of Nunavut before dedicating the rest of his career as a priest in Nunavik. He continues to serve his community and his fellow Inuit from the Nunavik and Nunavut by contributing to various causes such as Inuit identity, men's traditional and contemporary roles and powers, suicide prevention and recovery. Iola is also a Director for Isuarsivik, an addiction treatment center in Kuujjuaq that delivers holistic and culturally responsive trauma-informed recovery programs, and part of the Qajaq Network Board of Directors.

Photo: Kaitli[illegible]n-Honeyman

There were several Board members for whom biographies were not available: Jean-Guy Beaudoin (DFO) 2009–2010, Luc Belanger (ECCC- CWS) 2009–2011 and Charles-Antoine Drolet (ECCC- CWS) 2011–2013.

1.2 BOARD MEETINGS

The Board has met regularly each year to fulfill the mandate of the NMRWB through discussion, information sharing, and decision making on topics relevant to the Board. In general, regular Board meetings were held four times per year, with a few extra meetings in the early years of the Board to accommodate start up decision making and development (Figure 4, Appendix B). The NILCA Section 5.6.13 specifies that the NMRWB should meet in Nunavik, whenever practicable, and the Board has endeavored to host at least half of its in-person meetings in Nunavik each year (Figure 5).[4] Additional meetings were used to address time-sensitive topics or special projects. The number of additional meetings, which were mainly teleconferences / virtual, varied considerably between years, ranging from three to seventeen. FY 2017[5] included many additional meetings, primarily to address the 2017-20 beluga decisions, and FY 2022 and 2023 required additional meetings to address the development of the Strategic Plan.

4 Between March 2020 and March 2022 all of the Board's regular meetings were held virtually due to COVID-19 pandemic.

5 The NMRWB operates on an April 1 to March 31 fiscal year (FY); as such, annual reporting cycles reference two calendar years (e.g., 2012/2013). For simplicity, the timing of events in this report are referenced by the end of the fiscal year (e.g., FY 2013). In instances where the date is not specified as fiscal year it can be assumed to be the calendar year.

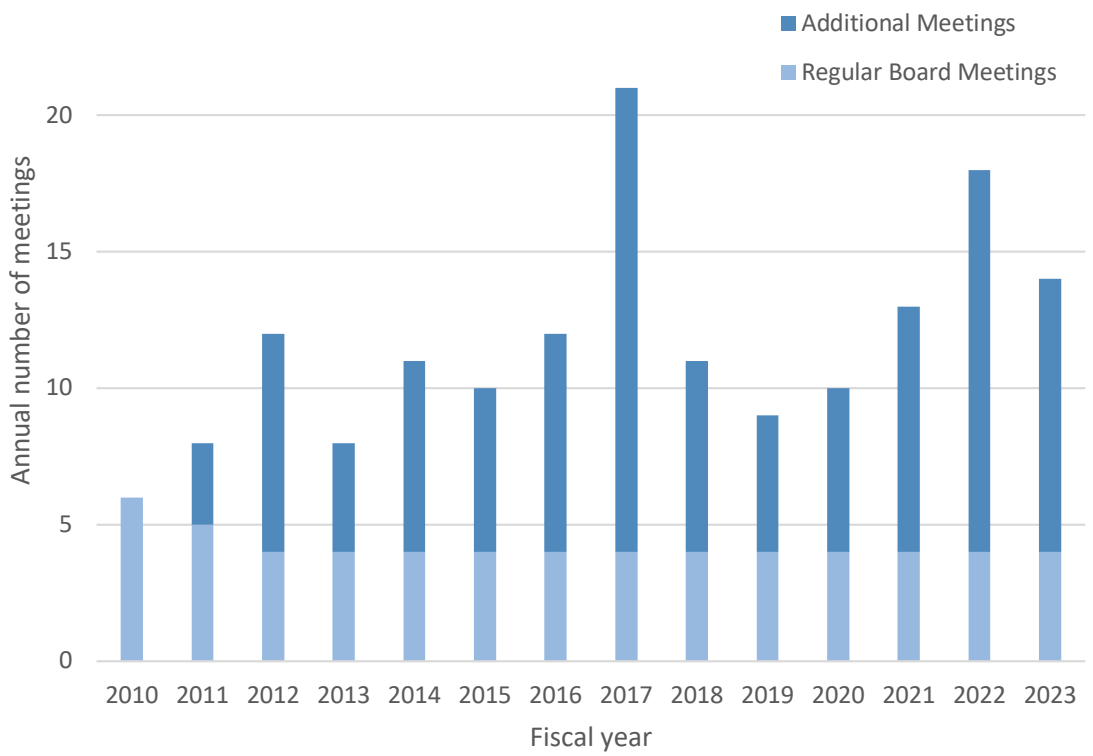


FIGURE 4. Summary of the number of Board meetings per fiscal year

FIGURE 5. Locations of Regular Board Meetings from FY 2010–2023

1.3 STAFF

The Board was originally supported by a staff team of five individuals. In 2009, during our first year of operation, the Board commenced filling staff positions starting with the positions of Director of Wildlife Management and Administrative Assistant (then called the Secretary/Translator). This was quickly followed by the hiring of an Executive Director and a Wildlife Biologist. A Wildlife Liaison Officer was hired in early 2010. The addition of two new staff positions (a second Wildlife Biologist and a Community Research Coordinator) was made possible under the new NILCA Implementation Plan 2021–2031 in FY 2022 and hiring for these positions proceeded accordingly. Today, the staff of the NMRWB consists of an Executive Director, a Director of Wildlife Management, two Wildlife Biologists, a Wildlife Liaison Officer, a Community Research Coordinator, and an Administrative Assistant. For an overview of the roles and responsibilities of staff members, see Figure 6.

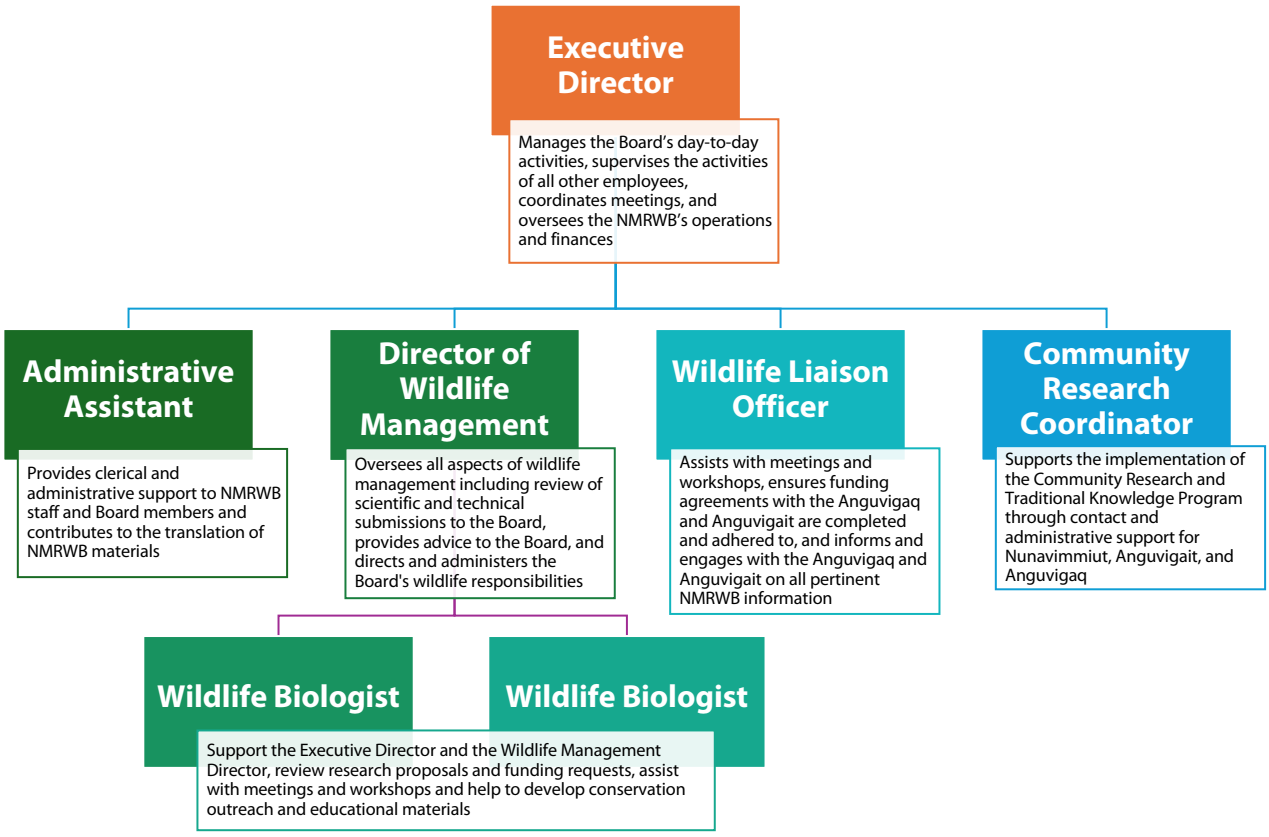


FIGURE 6. Staff roles and responsibilities

Executive Director

The NMRWB has been fortunate to have minimal turn-over in the position of Executive Director. Adamie Padlayat filled the position from 2009 to 2016 followed by Tommy Palliser who remains in the position. This continuity has been of great benefit to the Board in building institutional memory, establishing lasting relationships with collaborators, and ensuring continuity for the implementation of the Board's mandate under the NILCA. The first Executive Director, Adamie Padlayat, brought his experience working in various positions for Makivvik, including a position as Executive Assistant to the Vice-President of Renewable Resources. He also held various public service roles in different communities in Nunavik. Tommy Palliser's background in social sciences and commerce have provided a strong foundation for his work with the Board. His experience in economic development in Nunavik has been invaluable in his role as Executive Director.

- Adamie Padlayat 2009–2016
- Kaitlin Breton-Honeyman (acting) 2016
- Tommy Palliser 2016–present

Director of Wildlife Management and Wildlife Biologists

The NMRWB currently employs a Director of Wildlife Management and two wildlife biologists. Their backgrounds in research involving various wildlife species important to Nunavik Inuit, as well as research focussing on Inuit knowledge of wildlife, has helped to inform their work on behalf of the Board. Experience working with youth on wildlife and environmental research and monitoring projects has also been of great benefit in supporting the Board's work.

Director of Wildlife Management

- Gregor Gilbert 2009–2010
- Mark O'Connor 2010–2015
- Kaitlin Breton-Honeyman 2015–2019
- Mark Basterfield 2019–present (and acting in 2017–2018)

Wildlife Biologists

- Mark O'Connor 2010–2010
- Émilie Leclerc 2011–2012
- Raphaël Goulet 2012–2013
- Kaitlin Breton-Honeyman 2013–2015 (and contract position in 2020–2021)
- Mark Basterfield 2016–2019
- Frankie Jean-Gagnon 2017–present
- Anne-Marie Cabana 2021–2022
- Sarah Khan 2022–present

Wildlife Liaison Officer

The Wildlife Liaison Officer is the point of contact between the NMRWB and Anguvigait and supports the Board members and staff by communicating and interacting with the Anguvigait and Anguvigaq[6] (formerly LNUKs and RNUK) on a wide range of wildlife related matters, such as public hearings, as well as supporting the administration of the Anguvigait. This liaising facilitates the interaction and communication between the NMRWB and Nunavik Inuit on all wildlife and harvesting matters. They work closely with the Anguvigaq and their Secretariat in supporting the Anguvigait.

- Bobby Epoo 2010, 2013–2016
- Sarah Lisa Kasudluak 2010–2013
- Pauloosie Kasudluak 2012–2013, 2018–2021
- Annie Weetaluktuk Rousseau 2017–2018
- Noah POV 2021–2023

6 The Anguvigaq has had many names over its decades of operations and in fall 2023 passed a resolution to only be called Anguvigaq, their original name, going forward. The Anguvigaq replaces the name of Regional Nunavimmi Uumajulirijiit Katutjiqatigiinninga (RNUK) used in the Nunavik Inuit Land Claims Agreement. Anguvigait is the plural term to refer to all Local Nunavimmi Uumajulirijiit Katutjiqatigiinninga (LNUKs).

Community Research Coordinator

The Community Research Coordinator supports the Board by fostering community driven marine wildlife research through the implementation of the Community Research and Traditional Knowledge Programs. They provide a point of contact and administrative support for Nunavimmiut, Anguvigait and the Anguvigaq (formerly LNUKs and RNUK) to propose, undertake and complete community research and Traditional Knowledge development projects. They facilitate improved access to community driven research and Traditional Knowledge to the NMRWB, through reviewing and evaluating proposals, maintaining a project database, and preparing and presenting research results to the NMRWB.

- Janice Kasudluak 2021–2022
- Rynee Kokiapik 2022– present

Administrative Assistant

This position was titled secretary / receptionist in the first NILCA Implementation Plan and was reclassified as an Administrative Assistant in 2015 to reflect the full scope of their responsibilities. The Administrative Assistant provides essential administrative support to all of the other staff members, and is responsible for maintaining an organized and coordinated office. The Administrative Assistant works closely with Executive Director to support the Board, particularly related to meetings logistics.

- Sarah Ruptash 2009–2012
- Lorrie Kasudluak 2012–2015
- Maina Epoo 2015
- Natalie Echalook 2016
- Lucy Nowra 2016–2017
- Elizabeth Laura Kokkinerk 2017–2019
- Mary Mina 2019–present

In recent years, the Board has had the opportunity to employ several students, working on projects such as developing a brochure on marine mammals in Nunavik, mapping beluga harvest in the NMR, and interviewing elders and hunters on marine mammal health. These student employees bring energy and new perspectives to the Board and their contributions are much appreciated. Engaging with students also helps to train and increase capacity for the future of wildlife management in Nunavik.

The Board has been supported in our operations by several professionals. Legal counsel for the Board is provided by a legal team from Borden Ladner Gervais, headed by Yvan Houle, and supported by James Woods and Cristina Birks, and an independent lawyer Qajaq Robinson. Raymond Chabot Grant Thornton of Montreal provides day-to-day accounting services and prepares annual audited financial statements. The NMRWB also regularly requires translation and interpretation services to ensure that our meetings and the documents required for them are available in English and Inuktitut.

1.4 OFFICE AND ADMINISTRATION

The head office of the NMRWB was established in Inukjuak in 2009. It was originally located in the Sikulik Arena, and then moved to Inukjuak's Alakkariallak business complex in FY 2014. In the fall of 2023, the construction on long awaited office renovation was completed and staff moved back into an office with an increased number of offices for staff.

The Board has expended considerable resources and effort in training and capacity building among our staff and Board. Over the years, the Board has worked with a Human Resource consultant to develop an employee evaluation system and has conducted training sessions for senior staff members. The Board engaged the services of Raymond Chabot Grant Thornton to aid in the financial administration and reporting of the Board and the Anguvigait. It also implemented a comprehensive benefits and retirement plan for all employees. The Board continues to focus on hiring local staff, contributing to local employment.

The initial Implementation Plan (2007) for the NILCA established the staff positions and operational funding model for the NMRWB. The Board operated under this funding model from 2008–2022, until the next 10-year Implementation Plan was approved and implemented. In support of this new Plan, the Board undertook a detailed review of the mandate, operations, and financial performance to create a Projection Plan for our work into the next decade. This work was essential in securing appropriate operational funding for the years ahead and served to place the Board in a strong position to continue this important work.

The Board also recognizes the importance of Strategic Planning for setting the vision, goals, and objectives for the work of the Board. In FY 2022, the Board decided to plan and prepare for the development, with support from a consultant, of a robust Strategic Plan for the next 10 years. The Strategic Plan includes enhanced communication strategies, community outreach and rearranging our budget, employee benefits program, and general operations to be more efficient, fair, and cost-effective.

Photo: Sarah Khan

SPOTLIGHT

NMRWB 2022–2032 Strategic Plan

In FY 2022 the NMRWB established a Strategic Planning Team comprised of representatives from the Board and staff, and a consultant to assist with the development and implementation of a Strategic Plan that would cover a 10-year period from 2022 to 2032. Work undertaken in 2022 and 2023 led to NMRWB approval of the 2022–2032 Strategic Plan on March 27, 2023.

The Strategic Plan builds from the principles and objectives of Article 5 as well as the mandate of the NMRWB outlined in the NILCA to articulate a mission and vision statement to develop the Board's desired future state, referred to as the 2032 Vision. It then describes the goals and objectives that need to be actioned to realize that vision. The Strategic Plan is sub-divided into three phases, each focusing on a limited set of actions, which enables it to evolve over time in response to the knowledge and experience gained during previous phases. This is an adaptive management approach.

A mission statement is a summary of the aims and values of an organization and once it is established it should be supported by all employees and Board members:

Conservation and management of wildlife and habitat in the Nunavik Marine Region that respects the rights of Nunavik Inuit, other Indigenous Peoples, and residents of Nunavik

Building from the NMRWB's mandate and mission statement, the 2032 Vision was developed:

Managing wildlife and habitats in the Nunavik Marine Region for present and future generations through Nunavik Inuit stewardship

In December 2022, the Board approved its mission and 2032 Vision statements. Board members and staff then prepared the goals and objectives necessary to achieve the 2032 Vision. A goal is a realistic outcome that is generally broad and longer term, while an objective is shorter term and defines measurable actions to achieve an overall goal. The goals and objectives were grouped into the following six categories:

1. Human Resources
2. Financial and Administrative Resources
3. Board Governance
4. Communications and Outreach
5. Wildlife Management
6. Wildlife Research

In spring 2023, Board staff, with input from Board members and others, prepared specific goals and objectives for Phase I of the Strategic Plan (2022–2025). The NMRWB will work towards achieving these goals and objectives, with an Annual Activity Report prepared to document accomplishments. Similar implementation plans will be created for Phase II and Phase III. A Final Report will follow the completion of the 2032 year, with an evaluation to determine the need for renewal of the Strategic Plan.

Photo: James Gill

SECTION 2

Co-Management Partnerships

Coordination and collaboration are central to effective wildlife management and the ability for the Board to fulfil its mandate. The Board liaises and works with a wide range of organizations, including Territorial and Federal Governments, representative bodies for Indigenous Groups, other co-management boards and Nunavik Inuit (Figure 7).

More specifically, the Board works regularly with Makivvik, ECCC, DFO, the GNDOE and the Anguvigaq and Anguvigait and depends on the active participation of Nunavimmiut in the management process; thus, it is crucial that the NMRWB work closely in collaboration with the Anguvigait and Anguvigaq as representatives of Nunavik hunters, fishers and trappers. These organizations of elected representatives bring to the Board the wildlife knowledge they have acquired from Elders and through personal experience. NMRWB members and staff attend many meetings and conferences to stay informed on current issues and to have the opportunity to enact the NMRWB's mandate and further the objectives of the NILCA. Additionally, section 5.2.3 of the NILCA requires the NMRWB to cooperate with other wildlife management institutions which deal with species that are harvested in the NMR and migrate outside the NMR.[7] Fostering these connections and relationships within Nunavik and with adjacent regions contributes to the NMRWB's ability to make informed and effective decisions on wildlife management and other issues in the NMR.

Table 2 provides examples of meetings, conferences, and symposiums attended by Board members and staff of the NMRWB over the years. Some meetings not listed, such as the Anguvigaq Annual General Meeting, are often attended annually by staff. Sections 2.1–2.3 provide details on the NMRWB's work with other organizations within and beyond Nunavik.

7 NILCA 2006, Article 5.2.3(h)

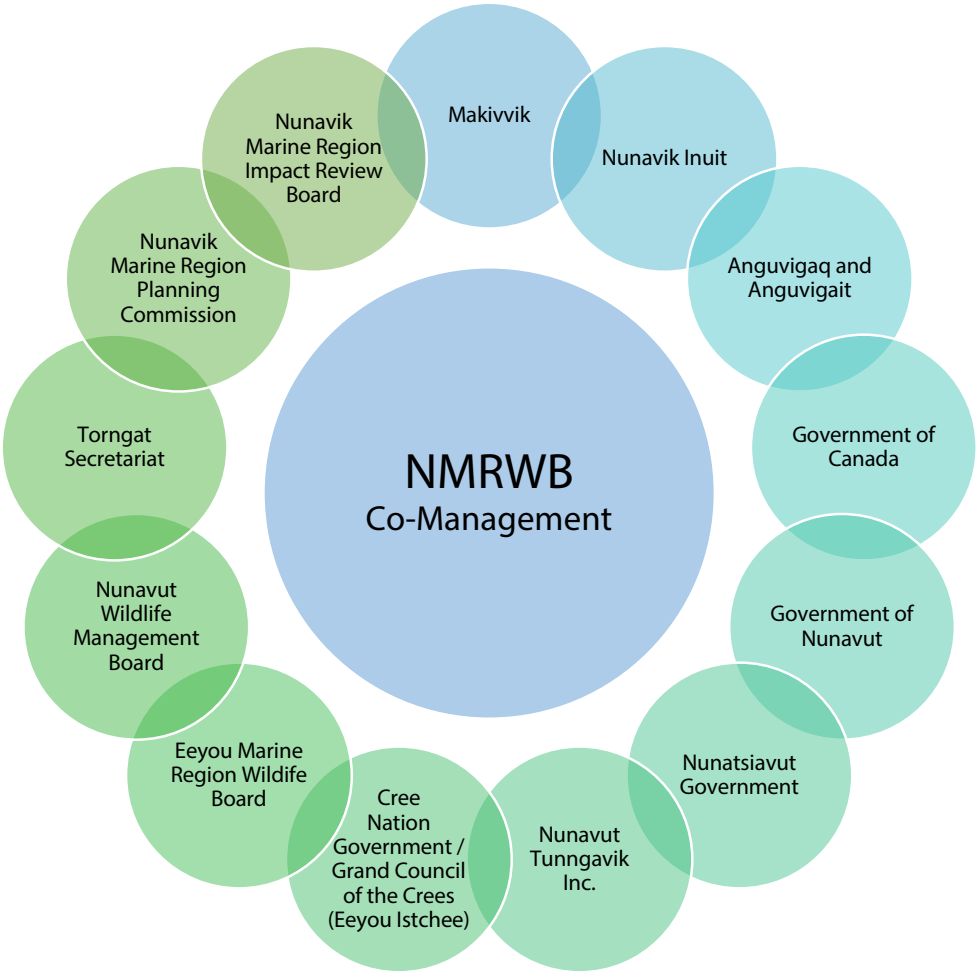


FIGURE 7. Wildlife co-management in Nunavik[8]

TABLE 2. Examples of meetings, conferences, and symposiums attended by the NMRWB

Year	Meeting/Conference/Symposium
2011	• Nunavut Fisheries Symposium, Iqaluit, NU • Symposium on Marine Protected Areas, Rimouski, QC • ArcticNet Annual Scientific Meeting, Ottawa, ON • Meeting with Nunavut Wildlife Management Board (NWMB) to discuss Areas of Equal Use and Occupancy, inter-jurisdictional responsibilities, and effective collaboration between the Boards

8 The Torngat Wildlife, Plants and Fisheries Secretariat (Torngat Secretariat) is the implementation agent for the Torngat Joint Fisheries Board and the Torngat Wildlife and Plants Co-Management Board

2012	• Workshops on better integrating science and Inuit Qaujimajatuqangit
2016	• Yukon North Slope Conference, Whitehorse, YK • Workshop on Sustainable Trade in Arctic Species, hosted by Inuit Tapiriit Kanatami (ITK), Ottawa, ON • Inaugural meeting of the Nunavut seabird by-catch stakeholders' group, hosted by Arctic Migratory Birds Initiative (AMBI), Iqaluit, NU
2017	• ArcticNet Annual Scientific Meeting, Winnipeg, MB • Inaugural Hudson Bay Consortium meeting, Chisasibi, QC • Inter-regional DFO meeting
2018	• ArcticNet Annual Scientific Meeting, Quebec City, QC • Hudson Bay Consortium Summit, Montreal, QC • Inter-regional DFO meeting
2019	• ArcticNet Annual Scientific Meeting, Halifax, NS • Hudson Bay Consortium, Timmins, ON • Meeting with NWMB, Torngat Joint Fisheries Board, and the Inuvialuit Fisheries Joint Management Committee to discuss their issues and to try to find some common ground to build upon • Meeting with new DFO Arctic Region, Regional Director General, Gabriel Nirlungayuq, and Assistant Commissioner for the Canadian Coast Guard, Neil O'Rourke to discuss the jurisdiction of the Arctic Region, Kuujjuaq, QC • Inuit Tapiriit Kanatami (ITK) conference on the Inuit Strategies on Research, Ottawa, ON • Arctic Biodiversity Congress, Rovaniemi, Finland • 2nd International Workshop on Beluga Whale Research, Mystic, Connecticut
2020	• Meeting with Torngat Joint Fisheries Board and with the DFO Regional Director General of the Arctic Region, Gabriel Nirlungayuq, Ottawa, ON • Public Hearing on Beluga Management, Kuujjuaraapik, QC • Arctic Frontiers Conference, Tromso, Norway • Polar Bear Range States Meeting, Svalbard, Norway • DFO Arctic Region Planning Meeting
2021 and 2022	• Many meetings cancelled due to the pandemic in 2020-2022.

2023	• NMRWB Strategic Planning Meeting, Montreal, QC • Nunavik Marine Region / Eeyou Marine Region Beluga Annual Review Meeting, Montreal, QC • Natsiq project workshop, Kuujjuaq, QC • Hudson Bay Consortium, Montreal, QC • ArcticNet Annual Scientific Meeting, Toronto, ON • Meeting of the Nunavik Beluga working group • Polar Bear Technical Committee, Quebec City, QC • Northern Lights Trade show, Ottawa, ON

2.1 ANGUVIGAIT AND ANGUVIGAQ

Under the NILCA, a great deal of responsibilities and authority rests with Nunavik Inuit. Prior to the conception of the NILCA, Nunavik Inuit organized themselves for the purpose of wildlife management. The wildlife harvesters in each community are represented by a local Anguvigaq (plural, Anguvigait); these organizations are, in turn, represented by the regional Anguvigaq [Note that the NILCA refers to these organizations as the Local Nunavimmi Umajulirijiit Katujjiqatigiinninga (LNUKs) and Regional Nunavimmi Umajulirijiit Katujjiqatigiinninga (RNUK)]. The system put in place under the NILCA reaffirms the self-government of Anguvigaq and Anguvigait and their ability to regulate, giving harvesters greater and more direct control of the management measures that apply to their region. Further information on the Anguvigaq is provided in the SPOTLIGHT: Anguvigaq — NILCA to 2023. In accordance with the Anguvigaq's mandate under the NILCA, it is the consultative body for the Anguvigait to the NMRWB. Section 2.7.4, of the NICLA affirms that within the NMR, the function of the Anguvigaq includes, but is not limited to the following:

- the recommendation, on behalf of Anguvigait, of wildlife management measures and techniques for the regulation of Nunavik Inuit harvesting to the NMRWB;
- the regulation and monitoring of harvesting practices and techniques among the Anguvigait, including the use of non-quota limitations;
- and the allocation and enforcement of basic needs levels and adjusted basic needs levels among the Anguvigait.[9]

To guide these functions under the NILCA, the Anguvigaq and the Anguvigait are responsible for developing their own by-laws. For its work in the NMR, the Anguvigaq and the Anguvigait are funded as per the NILCA Implementation Plan with funds flowing through the contribution agreement between the NMRWB and Federal Government. The NMRWB Wildlife Liaison Officer provides support to the Anguvigaq and Anguvigait through funding agreements, reporting, and meeting coordination.

9 NILCA 2006, Article 2.7.4

2.2 NUNAVIK MARINE REGION PLANNING COMMISSION AND IMPACT REVIEW BOARD

The NMRWB is one of three intuitions of public government established under the NILCA. There is some interconnection and overlap between the mandates of the NMRWB, Nunavik Marine Region Impact Review Board (NMRIRB) and the Nunavik Marine Region Planning Commission (NMRPC) and the NILCA requires some degree of collaboration and coordination between them. The NMRWB frequently contributes to the work the NMRIRB but providing comments on projects undergoing NMRIRB screening. These comments include concerns with respect to the possibility of impacts from projects on wildlife and habitat. With the NMRPRC, the NMRWB provides input on wildlife matters to guide the development of a marine use plan for the NMR, which is the responsibility of the NMRPC to develop.

The NMRWB has a role to play in recommending for approval wildlife research projects in the NMR. This overlaps with the role of the NMRPC and the NMRIRB. As such, the NMRWB continues to work on a wildlife research authorization protocol to ensure a clear and streamlined process for researchers to follow.

2.3 EEYOU MARINE REGION

Since 2014, the NMRWB has worked closely with the Eeyou Marine Region Wildlife Board (EMRWB) on matters pertaining to species in the Cree/Inuit Offshore Overlapping Interests Area (Cree/Inuit Overlap Area) where the NMR overlaps with the Eeyou Marine Region (EMR).[10] The Cree/Inuit Overlap Area consists of three zones, each with differences in decision-making responsibility. In the northernmost Inuit Zone, the NMRWB has jurisdiction, with one member replaced by a member appointed by the Cree Nation Government. In the southernmost Cree Zone, the EMRWB has jurisdiction with one member replaced by a member appointed by Makivvik. Between the Inuit Zone and the Cree Zone lies the Joint Zone where the NMRWB and EMRWB have equal jurisdiction, and make decisions together.

This has included a joint decision-making process for polar bear harvesting in the Cree/Inuit Overlap Area which resulted in establishing polar bear harvesting regulations. The two Boards also work together on issues relating to beluga management, such as establishing Total Allowable Take (TAT) and Non-Quota Limitations (NQLs) for jointly managed areas. The NMRWB and EMRWB continue to collaborate and coordinate on a wide range of wildlife management matters within the Cree/Inuit Overlap Area.

10 NILCA 2006, Article 28

SPOTLIGHT

Anguvigaq — NILCA to 2023

Provided by Anguvigaq

Anguvigaq ᐊᖏᔪᐃᒐᖅ
Nunavik Hunting Fishing Trapping Association

The Anguvigaq was created as an umbrella organization mandated to represent Nunavik Inuit harvesters on all wildlife issues, both land and marine. It became incorporated as a not-for-profit association under the Quebec Companies Act on May 5, 1995.

In Inuktitut, the organization was named after a traditional hunting tool, an "anguvigaq." In English, it was called the "Nunavik Hunting Fishing Trapping Association" (NHFTA). The head office was established in Kuujjuaq and four Executives were elected by Nunavik harvesters to represent their concerns and priorities.

In 2008, with the Nunavik Inuit Land Claims Agreement (NILCA), the offshore wildlife management mandate of the Anguvigaq was recognized and the organization was assigned a new name: the Regional Nunavimmi Uumajulirijiit Katutjiqatigiinninga (RNUK). This also brought additional funds on both the regional and local levels in order for the Anguvigaq and the Anguvigait (LNUKs) to fulfill their mandates in the marine region. With additional funding in 2020 and from the renewal of the NILCA, the Anguvigaq was able to hire full-time staff both regionally and locally.

The Anguvigaq is supported by the Makivvik Corporation legal team, who provide them with in-kind support.

2008–2019

The Anguvigaq actively represented Nunavik hunters at meetings such as the NMRWB meetings, written and public hearings, regional committees (including the Imilik and Kovik committee), Hunting Fishing Trapping Coordinating Committee (HFTCC), and Makivvik Annual General Meetings.

The Anguvigait (LNUKs) represented hunters at the local level and were supported by the Anguvigaq and the NMRWB. The Chisasibi Anguvigaq (LNUK) became active in 2018, and hosted the 2019 Annual General Meeting (AGM) in Chisasibi.

Funding during this time, which was provided through the NMRWB and Makivvik, supported four Anguvigaq Executives as well as their travel to meetings and hosting of the AGMs. Funding shortfalls compared to needs for fulfilling the mandate meant that by 2013, the Anguvigaq had accumulated a large debt, which Makivvik helped to settle. After this, financial accountability began to improve with the collaboration of these supporting organizations. However, the limited budget restricted the possibility of additional capacity-building activities.

2020-2023

THE FIRST STAFF POSITIONS

In 2020, the NMRWB allocated the Anguvigaq with some of the surplus funding that remained due to Chisasibi not having established their local Anguvigaq (LNUK) until 2018. This funding allowed the Anguvigaq to hire the first staff member in September 2020. This staff position ("Coordinator") provided additional capacity to apply for external funding sources for projects and activities, doubling the operational budget in the form of project-specific funding. Funding was leveraged to open an additional job position, "Regional Project Coordinator." Communications with the region were improved, especially with the creation of a Facebook page and a website (www.anguvigaq.ca). The Anguvigaq began to conduct Inuit-led research and management, such as the Marralik-Ungunniavik project and the Eastern Hudson Bay (EHB) beluga Inuit Knowledge project. Details and photos of projects are provided on the Anguvigaq website (www.anguvigaq.ca/projects). In addition, the Executives and staff began participating in more regional and national wildlife committees and increased their involvement in development of wildlife management plans.

Annual General Meetings

Every year, the Anguvigaq held their Annual General Meeting (AGM), which, aside from fulfilling legal responsibilities as a corporation, provided a forum for discussions of wildlife research and management. The whole region can tune in through the radio broadcast. The locations of AGMs from 2009 until 2023 were:

2009: Puvirnituq

2010: Kuujjuaq

2011: Ivujivik

2012: Kuujjuaraapik

2013: Kangiqsujuaq

2014: Kangiqsualujjuaq

2015: Kuujjuaraapik

2016: Salluit

2017: Tasiujaq

2018: Akulivik

2019: Chisasibi

2020: Due to COVID-19, the 2020 AGM was postponed until February 2021, in Quaqtaq

2021a: Due to COVID-19, online AGM in February 2022, only pressing issues

2021b: Due to COVID-19, the 2021 AGM was postponed until April 2022, in Kuujjuaq

2022: Montreal

2023: Umiujaq

NILCA renewal and additional capacity and resources

In 2021, the NILCA implementation Committee finalized the budget for the renewal of NILCA Implementation Plan and associated funding for the next 10 years. In the plan, a new entity, the Wildlife Secretariat, was to provide administrative, financial and technical support to the Anguvigaq and Anguvigait. The Anguvigaq made a request for the Wildlife Secretariat to be managed within their organization. Once the request was approved, the Anguvigaq was able to hire two new full-time staff members: the Wildlife Secretariat Administrator and the Wildlife Secretariat Manager. These two positions have made a significant difference for the organization, by creating staff capacity for preparing meeting agendas and meeting notes, coordination of meetings and travel bookings, and HR management for the growing team.

Support of the Anguvigait

The Anguvigaq has been restructuring and centralizing its role to better support the Anguvigait. The organization requested surplus funding from the NMRWB to purchase iPads for each community and created Dilitrust accounts, which allowed the provision of meeting documents and agendas virtually for teleconference meetings. The Anguvigaq hosted regular meetings with Anguvigait Managers and assisted the Anguvigait with job postings, funding applications, resolution writing, and applications for bank accounts. Many of these training and supporting activities had previously been taken on by the NMRWB or Makivvik. Anguvigait Manager trainings and meetings, which were funded by the Anguvigaq through their project-specific funding, took place online in 2021 and were hosted in person in September 2022, June 2023, and March 2024. In addition, the Anguvigaq created a Manager Training Guidebook, which described the role of Anguvigait, managers, wildlife management organizations, and research. The Anguvigaq began to take a more active role in helping Anguvigait when they were struggling, including assisting with local elections in person when there was no Manager.

Anguvigaq head office

Until 2023, the Anguvigaq was renting their office space in Kuujjuaq, but they recognized that the space was too small for the organization's equipment storage and meeting needs. In addition, it has not had any staff or Executives working in Kuujjuaq since November 2022. Through Inuit Guardians funding, the Anguvigaq was able to secure funding for a new head office in Tasiujaq, where the President and Executive Director both live. The purchase of the building was completed in August 2023 and renovations followed, with a grand opening anticipated for May 2024. This is an exciting leap in terms of project equipment being able to be stored, archives organized, and meetings facilitated. The Anguvigaq Board of Directors voted to update the head office address as well as the name of the organization (Anguvigaq), to clarify confusion in the region due to the organization's many labels (Nunavik Hunting Fishing Trapping Association, RNUK, and Anguvigaq).

Wildlife Research and Management Board Meetings

The Board of Directors of the Anguvigaq, representing the Anguvigait, requested a second in-person Board Meeting each year, since the AGM is too busy with legal requirements (such as review of finances and operations) to focus on management issues or research in depth. In 2023, the Anguvigaq secured funding to host a Board meeting in February 2024 (Kuujjuaraapik), focused on research and wildlife management. This funding is not part of the operational budget, so the Anguvigaq is working on securing long-term funding for this purpose.

Summary

The Anguvigaq has undergone significant growth over the 15 years since the NILCA came into effect. With the addition of staff, funding, and support from organizations such as Makivvik and the NMRWB, it is certain that this growth will continue. This improvement will help amplify Inuit voices in wildlife management and research over the long term.

SECTION 3

Wildlife Co-Management

The Foundations of Nunavik Marine Region Co-Management

Article 5 of the NILCA establishes the NMRWB as primary body responsible for managing wildlife and wildlife habitat in the NMR and the main instrument of wildlife management. The principles of Article 5[11] recognize Inuit occupancy and use of the land and wildlife in the NMR, and identify the need for an effective wildlife management system that respects Nunavik Inuit rights and priorities and which is governed by the principles of conservation:

- maintenance of the natural balance of ecological systems within the NMR;
- maintenance of vital, healthy wildlife populations capable of sustaining harvesting needs as defined in this Article;
- protection of wildlife habitat; and
- restoration and revitalization of depleted populations of wildlife and wildlife[12]

The NMRWB operates with a mandate that respects the objectives of wildlife management defined in the NILCA[13] to ensure wildlife is managed in a way that protects Nunavik Inuit harvesting rights, upholds the principles of conservation, and promotes the long-term cultural, social, and economic well-being of Nunavik Inuit. Wildlife management systems under NILCA need to reflect Inuit harvesting practices, integrate Nunavik Inuit knowledge with scientific research, and encourage public participation to foster trust and transparency, particularly among Nunavik Inuit. The systems should also ensure coordination with institutions managing migratory species that move beyond the NMR.

Within this framework, the NMRWB carries out a wide range of responsibilities and accordingly, carries out several functions in harvest management and wildlife research. The Board also plays a key advisory role, offering guidance on wildlife conservation, and habitat protection. Specifically, Article 5 of the NILCA, provided the NMRWB with the following primary roles and responsibilities:

11 NILCA 2006, Article 5.1.2

12 NILCA 2006, Article 5.1.5 (a)-(d)

13 NILCA 2006, Article 5.1.3

- establishment of management measures, such as the establishment, removal or modification of TAT and NQLs;
- allocation of TAT;
- setting of and adjusting were necessary, basic needs levels, including the evaluation and obtaining of information necessary to establish BNL;
- participation in research;
- setting trophy fees on wildlife harvested in the NMR;
- cooperating with other wildlife management institutions which deal with species that are harvested in the NMR and migrate outside the NMR;
- providing advice to any other management institution as requested on all matters relating to management, conservation, protection and regulation of wildlife and wildlife habitat.[14]

In addition to its primary responsibilities, the NMRWB may exercise discretionary authority over a range of functions related to wildlife and habitat management:

- approving the creation, removal, or boundary changes of certain protected areas, and important wildlife areas for planning purposes;
- approving plans for the protection of specific wildlife habitats and for the management, restoration, or regulation of certain wildlife species, including approval of species-at-risk designations;
- provide advice on mitigation and compensation measures for development projects that may impact wildlife habitat;
- support or implement education and training initiatives for Nunavik Inuit in wildlife management;
- any other functions appropriate to the role as the main institute of wildlife management in the NMR.[15]

Research is central to effective wildlife management, and the NILCA recognizes this by mandating the NMRWB's involvement in research activities. Under the NILCA, to fulfill its wildlife management mandate the NMRWB must:

- identify research requirements and deficiencies pertinent to wildlife management, and promote and encourage research aimed at meeting requirements and overcoming deficiencies;
- identify relevant persons and agencies to undertake wildlife research;
- review research proposals and applications;
- collect, classify, and disseminate wildlife statistics and information and maintain a database adequate for such purposes;
- carry out all other research functions consistent with its responsibilities.[16]

14 NILCA 2006, Article 5.2.3

15 NILCA 2006, Article 5.2.4

16 NILCA 2006, Article 5.2.7.1

FIGURE 8. NMRWB's involvement in wildlife management by species

The Board identifies knowledge gaps, sets research priorities in collaboration with Inuit leadership, reviews proposals, and maintains a comprehensive wildlife database. It also supports training and employment for Nunavik Inuit in wildlife research and management. To support research in the NMR, the NILCA provided for a $5 million payment by the federal government to the NMRWB which has been established into the wildlife research trust.[17] The NMRWB uses these funds to fund research that helps the NMRWB carry out its research and management functions. Section 4 provides details on the NMRWB's research-funding activities.

Finally, the NMRWB also plays a role in reviewing and approving proposals by governments wanting to access Nunavik Inuit Lands for the purpose of research.[18]

Under the NILCA, the NMRWB's decisions and activities are grounded in both Inuit knowledge and scientific understanding—supporting an overall management system that is inclusive, informed, and responsive to the needs of the region and its people.

17 NILCA 2006, Article 5.2.7.2

18 NILCA 2006, Article 12.3.6

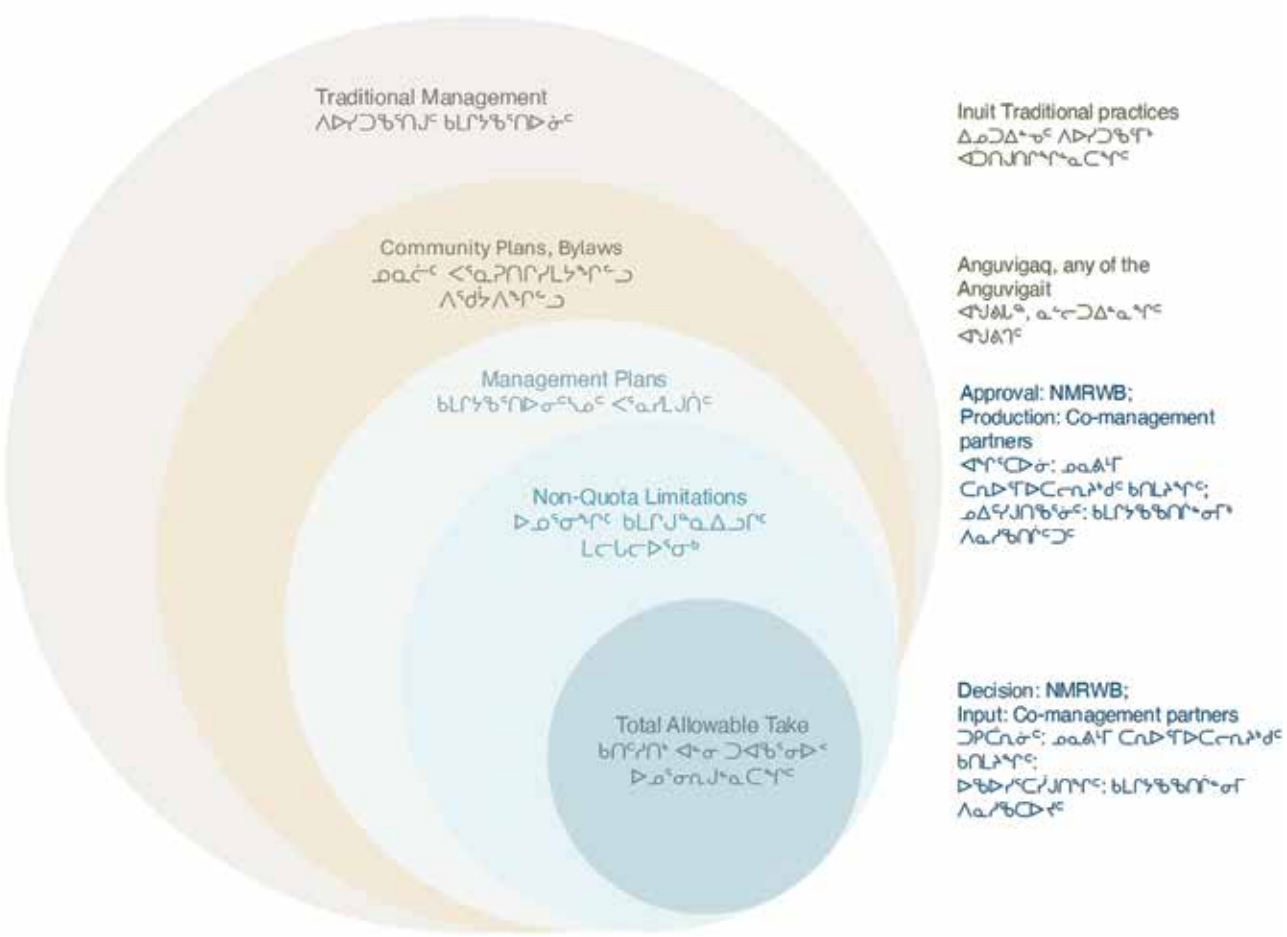


FIGURE 9. The NMRWB's wildlife management approach

NMRWB Management Decision-Making

With the recognition of the value of Inuit management practices in mind, the NMRWB uses a "bottom-up" approach to wildlife management (Figure 9), where traditional practices and the authority of the Anguvigait and Anguvigaq through their wildlife management bylaws are the foremost methods of responsible and effective wildlife management, with NMRWB management decisions such as TAT only being considered after all other approaches have been considered or employed.

The NMRWB's decision-making process is designed to balance Inuit harvesting rights with broader conservation goals, public safety, and legal obligations. Under the NILCA, any decision by the NMRWB can only restrict Nunavik Inuit harvesting for conservation purposes, to implement the allocation system described in the NILCA, or to protect public health and safety.[19] In cases where wildlife populations migrate across jurisdictional boundaries, the

19 NILCA 2006, Article 5.5.3

Board must also take into account harvesting activities outside the NMR, as well as any relevant interjurisdictional agreements.[20]

Management decisions in the NMR go through a process referred to as the Board-Minister decision process. Once the NMRWB makes a decision, it forwards it to the relevant Minister but does not make it public. The Minister then has 60 days to either accept the decision or reject it with written reasons. If no rejection is received within that timeframe, the decision is deemed accepted and must be implemented. If the Minister does reject the decision, the Board must reconsider it in light of the reasons provided and submit a final decision. This final decision may be made public. The Minister may accept, reject, or vary the final decision, but must provide justification in any case. If accepted or varied, the final decision must then be implemented without delay.

The initiation of NMRWB management consideration or re-consideration can originate from a request for decision submitted by any co-management partner. For example, a request from the Anguvigaq, as in the case with narwhal, or from Government, as in the case with polar bear. The Board may also identify the need for consideration independently as the circumstances deem necessary. This may result from new data that suggests measures may be needed or where a previous decision is set to expire, as has been the case for some of the beluga decisions.

Over the last 15 years, the NMRWB has been involved in making management decisions in relation to numerous species within the NMR, each with its own specific life history, habitat, stressors, harvest, and conservation considerations. The species of primary interest from these years are shown in Figure 8; however, focus has been on polar bear and beluga management.

The following sections provide an overview of the work undertaken for species/stocks management by the NMRWB, with project highlights[21] providing additional details for key initiatives.

3.1 BELUGA

Currently, it is understood that five beluga stocks are present at different times of the year in the NMR. All are named based on their respective summering areas: Eastern Hudson Bay (EHB), Western Hudson Bay, James Bay, Ungava Bay and a newly identified Belcher Islands stock of beluga. The Western Hudson Bay and EHB stocks are migratory and move through Ungava Bay during seasonal migrations between their summering areas in Hudson Bay, and their wintering area in Hudson Strait, Davis Strait and the Labrador Sea.[22] James Bay beluga are considered to be non-migratory but this remains to be determined.[23] Conservation concerns have been identified for EHB and Ungava Bay, but James Bay and Western Hudson

20 NILCA 2006, Article 5.5.4.1

21 Project Highlights were written by report authors of this report based on materials provided by research project teams unless otherwise noted.

22 Bailleul, F., Lesage, V., Power, M., Doidge, D., & Hammill, M. (2012). Migration phenology of beluga whales in a changing Arctic. Climate Research, 53(3), 169–178. https://doi.org/10.3354/cr01104

23 Postma, L. D., Petersen, S. D., Turgeon, J., Hammill, M. O., Lesage, V., & Doniol-Valcroze, T. (2012). Beluga whales in James Bay: a separate entity from eastern Hudson Bay belugas? (CSAS Research Document)

Bay stocks are considered to be healthy and not at risk. Recent genetic studies suggest a more complicated stock structure with the identification of a Belcher Island stock which was previously conflated with other Hudson Bay stocks. The initial decline of these stocks was from heavy commercial whaling during the eighteenth, nineteenth and early twentieth centuries and they have not recovered. Management has been focused on EHB beluga and there has been federally established management plans since the 1980s until the NMRWB's first beluga decisions.

Since 2010, the Board has developed, reviewed, and revised the beluga management system for the NMR. This work has been done in collaboration with Makivvik, Anguvigaq, and DFO, with the goal of shifting beluga management back toward Inuit-led approaches. Beluga management issues have been a main focus of wildlife management during the Board's existence, with numerous management decisions having gone through the Board-Minister decision process, as shown in Table 3 and detailed in the text below. With each series of management decisions, the Board has reflected deeply together with co-management partners to improve and adapt beluga management plans. While it has been a long and involved process, it has also had numerous positive outcomes, including for the creation of space for greater Inuit self-determination within the region.

TABLE 3. Comprehensive beluga management systems in the NMR since the creation of the NMRWB

Year	Comprehensive beluga management systems in the NMR
2010	Nunavik & adjacent waters beluga management plan (led by DFO)
2011–2013	Beluga (*Delphinapterus leucas*): Management plan for the Nunavik Marine Region (2011–2013)
2014–2016	NMRWB resolutions for a TAT for EHB beluga whales and associated non-quota limitations in the NMR
2017–2020	NMRWB and EMRWB resolutions for a TAT for EHB beluga whales and associated non-quota limitations in the NMR (2017–2020)
2020–2026	Final decisions in relation to the resolutions for the establishment of a TAT for beluga in the Eastern Hudson Bay Arc Region and associated non-quota limitations for beluga in the NMR (2020–2026)

2010–2013 initial beluga management decisions

In March 2010, DFO presented the 2010 Beluga Management Plan to the Board for approval and within that plan was a commitment for the Board to work with co-management partners to develop a 2011-2013 management plan. While the Board's initial decisions for new TAT levels were rejected by the Minister of Fisheries and Oceans, the NMRWB's revised decision was accepted allowing the hunting season to begin as soon as possible. The TAT and NQL contained within that decision remained in effect until end of 2013 beluga hunting season.

2014–2016 management decisions – first beluga community tour

In 2013, the NMRWB invested significant resources into revising the beluga management system in the NMR. NMRWB submitted requests for science advice to DFO and staff traveled to all Nunavik communities to gather Nunavik Inuit concerns, traditions, and knowledge to inform the development of a new management framework. Staff prepared a report from the community tour which was presented to the NMRWB in December 2013. The NMRWB developed a new management system over the following months, proposing major revisions to Nunavik's beluga management system, based on the knowledge and views of Nunavik Inuit and the best available scientific information provided by DFO.

In June 2014, the Ministry of Fisheries and Oceans informed NMRWB that parts of the Board's initial TAT and NQL decisions were rejected. Taking into account the reasons for rejection from the Minister, the Board immediately proceeded to produce a final decision, including taking decisions with the EMRWB for the Joint Zone of the Cree/Inuit Overlap Area. Approval of the final decision was received in July 2014.

A three-day workshop in Inukjuak was held with representatives from Anguvigaq and Anguvigait (then RNUK and LNUKs) to familiarize them with the system, due to the considerable changes prescribed by the NMRWB's new management system. The workshop aimed to inform participants about the new management system and to allow an opportunity for the Anguvigaq to allocate the TAT.

2017–2020 broader regional beluga engagement and introduction of the Hudson Strait pilot project

In September 2016, the NMRWB and all co-management parties hosted a three-day workshop in Inukjuak focused on fully understanding the issues with the previous plan and gathering suggestions for the new plan. Based on feedback from this workshop, DFO, Makivvik, and the Anguvigaq submitted a joint letter to the Board conveying the need for a new beluga harvest management plan. In response, the NMRWB undertook a multi-phase written hearing to gather information to inform these decisions. Parties to the written hearing included Nunavik Inuit, Anguvigait, Makivvik, Government of Canada, Nunavut Government, Nunavut Tunngavik Incorporated (NTI), Nunatsiavut Government, and the Cree Nation Government. All parties were invited to submit their concerns regarding the previous management plan and to share ideas on how to improve the current management plan. Following the review of written submissions, the Board decided that additional information was needed. The Board opened a question period for the last two weeks of January 2017, during which the NMRWB

and other parties were given the opportunity to ask for additional information on the initial submissions of other parties. This was followed by an answer period and chance for final/additional submissions in February 2017.

As a result, and based on the information gathered through the various hearings, the NMRWB established a TAT and NQLs for 2017–2020. These decisions of the Board were accepted by the DFO Minister in spring 2017. All decisions related to the Joint Zone within the Cree/Inuit Overlap Area were made with jointly and equally with the EMRWB. For the Inuit Zone, a Cree appointee sat with the Board and participated in the decision making.

In April 2017, the NMRWB invited the executive members of the Anguvigaq to Inukjuak for a one-day meeting to assist them in their allocation of the TAT among the Anguvigait. Communities received allocations of beluga in certain areas and seasons for 2017. These allocations were intended to roll-over to the next two years, with minor changes if needed.

The Hudson Strait Pilot Project was initiated in FY 2018, based on information from hunters in the Hudson Strait who indicated that the endangered Eastern Hudson Bay beluga could be avoided during the fall hunt using knowledge of migration patterns. The project allowed beluga to be returned to the quota in the following year if hunters successfully avoided the endangered whales, based on the results of genetic analysis.

On January 24, 2018, the Immilik Committee of the Anguvigaq made a resolution requesting the opening of the Marralik estuary in Ungava Bay, for hunting to gather information on the beluga occupying the estuary through harvest and biopsy sampling. Subsequently, the NMRWB discussed the closure of the estuary and resolved that there was not enough information available to consider any changes, but that gathering the required information to make such a decision must become a high priority for all co-management partners. After the Immilik Committee and the Board resolutions, two projects began:

- A DFO / Anguvigaq partnership aimed at gathering information, including observational data, on the beluga occupying the Marralik estuary, in addition to continued aerial surveys of Ungava Bay. The details of this project are provided in the Marralik-Ungunniavik Inuit Knowledge Sharing and Research Camp Project Highlight.
- A NMRWB-led project, in partnership with Polynya Consulting Group, to gather Inuit knowledge on traditional and modern use of the closed area by Inuit and beluga. The details of this project are provided in the Inuit knowledge of Beluga of Southern Ungava Bay and the Marralik (Mucalic) and Ungunniavik (Whale) River Estuaries Project Highlight.

The objective of both of these projects was to determine the timing and duration of occupancy, the number of beluga, the stock structure of the whales that are present in the area, and any other information the Board could use in decision-making.

2020–2026 first in-person beluga public hearing

In fall 2018, another iteration of a Nunavik Beluga Whale working group[24] was formed, including Board staff, Makivvik staff, DFO Management and Science, and Anguvigaq executive members. The group was formed with the intention of analyzing and considering the current three-year plan and potential improvements or changes in 2020. In January 2020, the Board held an in-person Public Hearing in Kuujjuaraapik to consider changes to the TAT and NQL decisions for beluga whales in Nunavik. This marked the first opportunity that Nunavik Inuit have had to voice their concerns and ideas related to beluga management directly to decision makers. Jointly with the EMRWB, the NMRWB submitted an initial decision to the Minister of Fisheries and Oceans on May 8th, 2020. The Board received a response on July 23, 2020, rejecting the Board's initial decision. The Boards and staff then worked to address the concerns raised by the Minister, and, on September 25, 2020, the Boards submitted the final decision for consideration by the Minister. In November 2020, the Boards received a response, accepting parts of the final decision of the Boards, while varying other aspects of it. Following this response, the NMRWB continued to work closely with all co-management partners, including the EMRWB, in the follow-up and implementation of the beluga decisions. Comprehensive communication of the decision to the Nunavik public was the priority, with effective communication formats such as posters and videos being used.

Accordingly in early 2021, the new five-year beluga management system came into effect. The new system is an attempt to both improve upon past management systems, while also being a fundamental change in how beluga harvesting is managed. The Boards recognized several issues with previous quota-based management systems. The quota system was understood by Nunavik Inuit and the Board to be degrading and eroding Inuit knowledge and practices with respect to beluga, beluga harvesting, and cultural use. Additionally, quota systems inadvertently caused increased harvest pressure on beluga and this system was focused on trying to reduce harvest through community bylaws. The new system prioritizes conservation of Eastern Hudson Bay beluga, while also holding space for Inuit self-determination, localized Inuit lead management, and improvement of collaboration between co-management partners.

A significant change in the 2021–2026 beluga management system was the inclusion of the possibility to open locally managed hunts in three estuary areas previously fully closed (Marralik in Ungava Bay, Little Whale River and Nastapoka in Hudson Bay). This change has had profound effects in the Marralik area. Combined with the new information, partnerships, and activities that began in 2018, the new management decisions made it possible for the Anguvigaq to develop the knowledge gathering project in Marralik into a fully Inuit-led and multi-purpose summer camp focused on traditional activities, passing on knowledge, and producing new knowledge. Further details on the knowledge gathering project is provided in the PROJECT HIGHLIGHT: Marralik-Ungunniavik Inuit Knowledge Sharing and Research Camp Project Highlight.

24 Several different beluga working groups have been created over the years with different terms of references. In some iterations, working group membership was inclusive of Nunavut while for other, it was solely Nunavik focused.

The NMRWB has been working on communications independently and in collaboration with co-management partners to help the public fully understand the 2021-2026 system. Maps indicating management zones, and where different management measures apply, have been produced and sent to the communities with a focus on informing those communities who may harvest in more than one management zone. These maps are also being used in a "Nunavik beluga hunting best practices" booklet, produced primarily by the NMRWB with input from co-management partners. An animation was also produced, which will be used to communicate beluga management and hunting best practices.

An important part of the 2021-2026 beluga management system is an annual review meeting, to analyze the previous year of the management system and increase awareness and communication. These annual review meetings were held in April 2022 and March 30–31, 2023.

3.2 POLAR BEAR

The ranges of three different polar bear management sub-populations extend into the NMR: Davis Strait, Foxe Basin, and Southern Hudson Bay. Since receiving the request to establish TATs in 2012 (detailed in the public hearing highlight), the Board has focused considerable energy in gathering information and input in support of polar bear management processes and decisions. This includes a project to conduct interviews with hunters and elders to gather Inuit knowledge and observations from Nunavik communities harvesting from the three sub-populations of polar bears in the NMR which was initiated in 2014 (see PROJECT HIGHLIGHT: Nunavik Inuit Knowledge and Observations of Polar Bears in Nunavik). Over the years, the NMRWB has also provided advice, often by facilitating engagement with and input from the Anguvigaq and Anguvigait, and support, including financial and logistical, toward surveys conducted for Southern Hudson Bay and Davis Strait bears. Further details on the management of polar bears are provided below in Sections 3.2.1 to 3.2.4, based on sub-populations and the overarching management plan.

In Canada, polar bear management responsibilities are shared by the Federal Government and Provincial and Territorial governments (Manitoba, Ontario, Québec, Newfoundland & Labrador, Yukon, Northwest Territories and Nunavut) along with wildlife co-management boards established under land claims/Treaty and Indigenous representative organizations. At an international level, the Agreement on the Conservation of Polar Bears (signed in 1973) provides a framework for coordinated management actions. Since the inception of the NMRWB in 2009, the Board and staff have actively participated in national and international forums on the management of polar bears (Table 4).

Southern Hudson Bay subpopulation

In 2012, following a higher than usual harvest of Southern Hudson Bay polar bears in 2011, Canada's then Minister of Environment, the Honourable Peter Kent, requested that the NMRWB establish a management system for polar bear within the NMR, including the establishment of a TAT. In February 2014, the NMRWB held its first ever public hearing in Inukjuak to consider the establishment of NQL and a TAT for Sothern Hudson Bay polar bears. Further details are provided in the highlight section SPOTLIGHT: Public Hearing on the Management of Southern Hudson Bay Polar Bear (2014).

Since 2018, a Southern Hudson Bay technical working group has been actively preparing information for the next Southern Hudson Bay TAT and NQL decisions, anticipated to occur in FY 2025. In August 2020, the NMRWB, the Hunting, Fishing, Trapping Coordinating Committee (HFTCC), the NWMB, and the EMRWB received a request to reconsider the TATs for Southern Hudson Bay polar bears through a coordinated decision-making process among the Boards / HFTCC. Given the challenges with the 2015 TAT and NQL decisions for Southern Hudson Bay polar bears, the NMRWB wanted to ensure they were proceeding in such a way that is fair, responsible, and in the best interest of affected parties. The NMRWB confirmed in principle that it wished to proceed with the co-ordinated decision-making process and that a decision process must first be agreed upon. Each of the other implicated co-management boards made similar commitments.

All Boards remain committed in principle; however, it became clear that co-ordination was unfeasible at the time given the jurisdictions varied situations. The NMRWB and EMRWB planned to consider NQLs before looking at TATs, while in the Nunavut Settlement Area was already subject to a suite of NQLs and would only consider TATs. The NMRWB and EMRWB will first hold a hearing and make management decisions regarding NQLs in November of 2024, and will subsequently determine whether a coordinated TAT process is necessary.

Davis Strait subpopulation

After receiving the request to establish a TAT for this sub-population in 2012, the Board began planning for a coordinated hearing process with neighbouring Boards/bodies that would allow for decisions for Davis Strait bears. Coordination was believed to be ideal between the NMRWB and the NWMB and the Torngat Wildlife and Plants Co-Management Board (Torngat Board) as these organizations each have harvest management responsibilities for this sub-population within their area of jurisdiction. The NMRWB, NWMB and Torngat Board discussed and explored the possibility of an Memorandum of Understanding to guide a coordinated decision-making process. In 2016, the NWMB decided they would not be holding a public hearing. The NMRWB and Torngat Board continued to developed a Memorandum of Understanding/Terms of Reference that would be used to guide a coordinated hearing process. The public hearing was originally scheduled for January 2017; however, it was delayed due to coordination issues and the pending completion of genetic mark-recapture sub-population size estimate surveys.

The NMRWB anticipated a new request to establish TAT and NQLs for this sub-population, given that the Nunavik Inuit Knowledge and Observations of Polar Bears Davis Strait sub-population was published in 2019 and the new sub-population estimate was made available at the end of FY 2022. However, the NMRWB was simply notified of the results of the survey, which indicated a stable Davis Strait subpopulation, and was not requested to make TAT decisions at this time.

Foxe Basin subpopulation

In September 2013, the NMRWB participated in a NWMB public hearing on harvest levels for the Foxe Basin polar bear subpopulation in Nunavut. The NMRWB hearing submission was to indicate that a request to establish a TAT for Foxe Basin polar bears had also been received by the NMRWB.

The NMRWB provided funding to the Government of Nunavut (in collaboration with the Quebec Government) to complete a new population survey of Foxe Basin polar bears in summer of 2024[25]. Management actions may be requested of the NMRWB, depending on the awaited results of this survey.

Polar Bear Management Plan for Québec, the Eeyou Marine Region and Nunavik Marine Region

Since 2014, the NMRWB, along with many other co-management partners,[26] have participated in the development of a polar bear management plan for Quebec and the associated offshore regions (NMR and EMR). A draft plan was developed along with a consultation guide and a consultation tour of Nunavik communities occurred from January to March 2017; the NMRWB Wildlife Biologist served as technical advisor for this process. In March 2021, the NMRWB and EMRWB were presented with a final draft of the plan – Polar Bear Management Plan for Québec, the Eeyou Marine Region and the Nunavik Marine Region (2021) – and were requested to approve it. In 2021, a written hearing process was held and the Boards submitted a response to the authors with proposed modifications, based on information gathered through the hearing. In late 2022, the NMRWB and EMRWB approved the polar bear management plan for the EMR and NMR. The NMRWB and the EMRWB sent their approval resolutions and a joint letter to the Federal Minister of Environment and Climate Change and the Government of Nunavut Minister of Environment. The decisions of the Board were accepted by both Ministers and plan was approved and published in 2024.

25 Bad weather in 2024 meant that the survey could not be completed and the survey is planned to continue in the summer of 2025.

26 Makivvik led the development of the Polar Bear Management plan with collaboration from Environment and Climate Change Canada (ECCC), Cree Nation Government (CNG), Cree Trappers Association (CTA), Eeyou Marine Region Wildlife Board (EMRWB), Government of Nunavut Department of the Environment (GNDoE), Hunting Fishing Trapping Coordinating Committee (HFTCC), Ministère des Forêts, de la Faune et des Parcs (MFFP), Anguvigaq (then RNUK), and Nunavik Marine Region Wildlife Board (NMRWB).

TABLE 4. Polar bear management committees and meetings where the Board or its staff have participated

Canadian Polar Bear Administrative Committee (PBAC) since 2009

PBAC is a forum for the provincial, territorial, and federal jurisdictions (including governments and management agencies, Indigenous organizations and councils and boards created under land claims agreements) to work together to manage polar bears in Canada. PBAC also ensures that Canada respects the international agreements it has signed related to polar bears. Nunavik is represented on the Committee by the NMRWB, Makivvik, and the Quebec Government.

Canadian Federal/Provincial/Territorial Polar Bear Technical Committee (PBTC) since 2013

PBTC is a technical advisory committee to PBAC and includes representation from each Canadian province and territory in which polar bears occur, as well as representatives from relevant Indigenous organizations and co-management boards. PBTC also includes international representation from relevant jurisdictions where polar bear subpopulation boundaries extend outside of Canada (Alaska and Greenland).

Polar Bear Range States Meeting in Iqaluit 2011, Svalbard 2020, and virtual 2023

NMRWB staff have participated in three meetings between representatives of the five polar bear range states (Canada, USA, Norway, Russia, Greenland) to provide updates on conservation status of polar bears in their jurisdiction and concerns about the conservation of the species.

Eastern Arctic Inter-Jurisdictional Polar Bear Meeting 2014

Representatives from co-management boards, Inuit organizations, Cree organizations, and relevant governments discussed the status of the Davis Strait, Foxe Basin, and Southern Hudson Bay polar bear management units, their population objectives, and the overall levels of harvest that would meet such objectives.

SPOTLIGHT

Public Hearing on the Management of Southern Hudson Bay Polar Bear (2014)

In 2011, unusual environmental conditions resulted in a higher than usual harvest of Southern Hudson Bay polar bears. In 2012 Canada's then Minister of Environment, the Honourable Peter Kent, requested that the NMRWB undertake the creation of a formal management system for polar bear in Nunavik. The NMRWB was directed to establish TATs for each of the three polar bear sub-populations that occur within the NMR. While the Board worked towards determining the best path forward, there were several inter-jurisdictional user-to-user meetings to address the management of Southern Hudson Bay polar bears, which resulted in a voluntary harvest limit agreement.

In 2014, the NMRWB held its first ever public hearing to consider the establishment of NQLs and a TAT for Southern Hudson Bay polar bear harvesting in the NMR. Representatives from, but not limited to, the Government of Canada, Government of Ontario, and Government of Quebec, Government of Nunavut, NTI, Sanikiluaq Hunters and Trappers Organization, and Nunavik Inuit as represented by Makivvik, Anguvigaq, the Anguvigait of Inukjuak, Umiujaq and Kuujjuaraapik as well as individual Inuit, attended the hearing to present their knowledge and perspectives to the Board. Following the in-person hearing, additional submissions from parties were requested by the NMRWB to ensure thorough consideration of all available relevant knowledge. During the hearing it also became clear to the NMRWB that there was a wealth of knowledge related to polar bears held by Nunavik Inuit that had not been presented and gathered at the hearing and was therefore not available for consideration in coming to a decision. The hearing was adjourned while the crucial missing information was gathered and a fair opportunity for comment was afforded to all parties. To ensure full consideration of Nunavik Inuit knowledge of polar bears and their traditional hunting practices, the NMRWB requested its staff to conduct interviews in Inukjuak, Umiujaq, and Kuujjuaraapik (further detailed in Project Highlight: Nunavik Inuit Knowledge and Observations of Polar Bears in Nunavik).

Photo: Tuniq Ningiuruvik

In July 2015, following the conclusion of the addition information gathering, the NMRWB made initial decisions with the EMRWB, both separately and jointly as defined by the offshore Cree/Inuit Overlap Area agreement, on the establishment of a TAT and NQLs for Southern Hudson Bay polar bear. The decisions were submitted to the Ministers responsible within the Government of Canada and Government of Nunavut, as both governments stated they had shared/joint responsibility. The initial decisions of the Boards, were rejected by both the Minister of Environment and Climate Change Canada and the Minister of the Environment for the Government of Nunavut in September 2015. Based on the reasons for rejection for their initial decision as provided in the response from the Ministers, the Boards made their Final Decisions at a special meeting in November 2015 and sent them to the Ministers in December. In October 2016, the NMRWB and the EMRWB received responses from the federal and territorial Ministers regarding the Boards' Final Decisions. Both Ministers varied the Final Decision of the Boards by reducing the TAT and by adding NQLs.

In response to the variation of the Boards' decision, Makivvik filed a judicial review of the Ministers decisions in the Nunavut Court of Justice and in the Federal Court of Canada. The Grand Council of the Crees (GCC) also joined the judicial review as a party. NTI and the NMRWB joined the Judicial review as intervenors. In February 2019, the Federal Court held its hearing in Inukjuak. The hearing was open to the public and was attended by Inukjuamiut, staff, as well as the vice-chairperson and Makivvik's NMRWB appointment for the Hudson coast. The decision of the Judicial Review judge largely rejected the claims made by Makivvik, and was further appealed by Makivvik and GCC the Federal Court of Appeal. At the Federal Court of Appeal level, the Court upheld the Minister's decision, but found that the Government of Canada had not acted in accordance with the Honour of the Crown in their engagement in the NMRWB and EMRWB decision making process.

The 2015 NMRWB/EMRWB decision as well as the Ministers decisions and the litigation that flowed from that have brought significant learning for all parties. It has helped inform a much more collaborative and engaged working relationship between co-management partners.

Photos: Bobby Epoo

3.3 NARWHAL

Although narwhal were not frequently observed in the NMR in the past, they were been sighted more frequently in the early 2000s, particularly in Hudson Strait, and Nunavik Inuit expressed interest in harvesting. Federal legislation and regulations restricted Nunavik harvesting of narwhal. Following a request from the Anguvigaq, the NMRWB began discussions to modify harvest regulations for narwhal in 2011. Narwhal found in the NMR belong to stocks that also migrate into the Nunavut Settlement Area and therefore are a shared stock with Nunavut Inuit. In March 2013, the NMRWB forwarded its initial decisions regarding the establishment of a management plan, including a TAT of 10, for narwhal in the NMR to the Minister of Fisheries and Oceans. The DFO Minister accepted the Boards decision. This management plan was updated in 2015 to include a flexible quota system, whereby unused tags could be transferred (carried over) to the subsequent harvest season with the Anguvigaq being responsible for the allocation of these tags. In January 2016, the NMRWB was presented with and approved the 2016–2019 Narwhal Management Plan, developed jointly by DFO, Makivvik, and the Anguvigaq (then RNUK) with technical support from Board staff. This management plan contains all the relevant Board decisions and other agreements currently in place (e.g., flexible quota system and tag transfer agreement between Makivvik and NTI). Since the expiry of the 2016–2019 decision, the NMRWB has not received a request from co-management partners to renew the decision.

3.4 BOWHEAD WHALE

Nunavik Inuit, like Inuit throughout Inuit Nunangat, harvest bowhead whale. Due to Canadian laws harvesting was prohibited for many years. The hunt of the East Canada-West Greenland population of bowhead whale in the NMR by Nunavik Inuit resumed in 2008 when DFO authorized one bowhead to be harvested.[27] Based on requests from Anguvigaq the NMRWB has considered several proposals since 2011 for bowhead whale hunts for specific communities within the NMR. The Board initially established a Basic Needs Level of two bowhead whales and a TAT of one whale and then in 2014 modified the TAT to two bowheads. While these hunts can present considerable logistical and organizational challenges, the communities have received approval for the hunts and continue to work towards successful hunts for this species. The communities who have been approved for bowhead hunts include, Kangiqsujuaq in fall 2012, 2016 and 2017 and Quaqtaq in 2014. Hunts were attempted in 2012, 2016, and 2017 in Kangiqsujuaq with one bowhead harvested in 2017.

In 2014, DFO led a process to develop an Integrated Fisheries Management Plan (IFMP) for the Eastern Canadian Arctic-West Greenland population of bowhead whales. NMRWB were unable to participate in initial workshops toward the development of this plan, but staff reviewed preliminary drafts of the plan. NMRWB's wildlife biologist and one Board member, along with representatives of the Anguvigaq and from the communities of Quaqtaq and Kangiqsujuaq, attended the bowhead whale IFMP workshop in Iqaluit in March 2014. In January 2018, an NMRWB Board member and wildlife biologist, as well as an Anguvigaq executive, attended a 2-day meeting in Rankin Inlet to

27 In 2008 and 2009, DFO authorized the harvest of one bowhead within the NMR.

start work again on the management plan. This meeting was followed up by another meeting held in Ottawa in December 2018, which was attended by the Board's two Wildlife Biologists.

In 2021, the Board was ask to consider approving listing the Eastern Canadian Arctic-West Greenland bowhead population as a species of "special concern" under Species at Risk Act (SARA). The Board held a written hearing to gather information and the prospectives of parties on the issues and made a decision in March 2022 not to approve the listing proposal. This decision was rejected by the Minister of DFO. In the end of 2023, following consideration of the reasons for rejection given by the Minister, the NMRWB made its final decision on the matter and again decided not to approve the listing. In July 2024 the NMRWB received a response from the Director General of the Canadian Wildlife Service indicating the Board's position on the matter would be considered when the Minister makes their recommendation on the subject to the Governor in Council (cabinet).

3.5 WALRUS

Atlantic walrus are found in much of the NMR and are harvested by Nunavik Inuit in particular in Quumiutait (Sleeper Islands) and Innalikkut (King George Islands) and on Akulliq (Salisbury) and Tutjaat (Nottingham) islands by nearby communities. The Board's focus for walrus has primarily been on supporting research on this species and on providing input through from the Board and walrus hunters to ensure that Inuit kis available for inclusion in the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) status reports and listings.

For three consecutive years starting in 2012, the Board supported a request from a Nunavik Inuit hunter to guide a walrus sport hunt at Nottingham and Salisbury Islands. The ultimate decision lies with the NWMB, as the Nottingham and Salisbury Islands are in the portion of the NMR that are part of the Areas of Equal Use and Occupancy between Nunavik Inuit and Nunavut Inuit.

The NMRWB was presented with the results of the aerial survey of walrus conducted in September 2014. There is a recognition of a need for further information regarding population assessment and baseline information for walrus in the NMR. The NMRWB subsequently funded research looking into stock discrimination of walrus via genetic sampling. In 2023, the NMRWB continued financial support of a walrus-centered research project led by the staff from the Nunavik Research Centre. Collectively, this research is anticipated to inform future Board decisions regarding harvest management of this species.

NMRWB continues to follow ongoing discussions in Nunavut regarding development of an Integrated Fisheries Management Plan (IFMP) for walrus. The Board will engage more fully in this matter should the plan have any potential impacts on walrus harvesting the NMR.

3.6 RINGED SEAL

The Ringed Seal, or natsiq, is an iconic species in Nunavik. It is both an important part of the natural environment, as well as a staple part of Inuit culture and diet. While the NMRWB has not had to consider management measures to address conservation of ringed seals, Board staff have adopted a proactive approach in establishing local monitoring and information-gathering for this important species. Most notably, in response to concerns from communities, NMRWB staff established the "Natsiq monitoring and education program" [see PROJECT HIGHLIGHT: Natsiq-ringed seal monitoring and education program (2019–current)].

In the spring of 2012, DFO conducted an aerial survey of ringed seal in eastern Hudson Bay. The NMRWB contributed funding and logistical support to the research team. Results of the survey showed a healthy ringed seal population with an estimate of over 100,000 seals in James Bay and eastern Hudson Bay.

3. 7 MIGRATORY BIRDS

Nunavik is home to an amazing diversity of migratory birds. The NMRWB's activities related to migratory birds have focused on supporting research (see Figure 11), including providing access for government researchers to Nunavik Inuit Lands,[28] contributing to COSEWIC reports and approving SARA management plans[29] and responding to requests for approval of species listings.[30] NMRWB Board members and staff, frequently in partnership with the Anguvigaq and with invaluable contributions from communities, have reviewed and provided feedback on COSEWIC reports (e.g. Bank Swallows, Buff-breasted Sandpipers Ivory and Ross's Gulls, Peregrine Falcons, and Short-eared Owls) and SARA listings, recovery strategies, and management plans (e.g. Barrow's Goldeneye, Red Knots, Bank Swallows, Red Necked Phalarope, Lesser Yellowlegs, Short-Eared Owl).

3.8 COMMERCIAL FISHERIES

Shrimp

The shrimp fishery in Nunavik provides a significant source of revenue to the region through fishery licences that have been held by Makivvik since the early days of the commercial fishery. The NMRWB sets annual TAT for Northern (*Pandalus borealis*) and Striped shrimp (*P. montagui*) harvesting within the NMR and makes recommendations on the TAT of adjacent areas.

The NMRWB has been participating to the Northern Shrimp Advisory Committee (NSAC) since 2010. NSAC is made up of fisheries license holders, Inuit treaty organizations (e.g., Makivvik, NTI, etc.), co-management boards (e.g. NWMB, Torngat Joint Fisheries Board) and staff from DFO, among others. The committee meets annually to discuss the status of northern and striped

28 NILCA 2006, Article 12.3.6

29 NILCA 2006, Article 5.2.4(d)(i)

30 NILCA 2006, Article 5.2.4(f)

shrimp populations, harvest results, and management of the fishery in Eastern Canada including waters adjacent to Nunavik and Nunavut. This meeting is usually attended by the NMRWB wildlife biologist who reports back to the Board. Under some circumstances, a Special meeting of the NSAC might be requested to discuss or clarify a particular issue in a timely manner.

These two shrimp populations span through the NMR and the Nunavut Settlement Area, and therefore is managed by the NMRWB and the NMWB. In 2013, the NMRWB and the NWMB began coordinating their decision making by holding joint written hearings, on the TAT and NQL for Northern (*Pandalus borealis*) and Striped shrimp (*P. montagui*) in the NMR, Nunavut Settlement Area and Davis Strait (Eastern and Western Assessment Zones). Since then, the Boards have been annually collaborating on this file in this manner. There were attempts at increasing the length of time of the TAT to two years in 2015 but precipitous changes in the shrimp biomass have meant that annual decision have been needed.

The NMRWB has taken part in the DFO initiative to create an Integrated Fisheries Management Plan (IFMP) for Northern and Striped Shrimp. An important part of the IFMP is the "Precautionary Approach," which DFO includes in the IFMP to aid in setting their Harvest Decision Rules. This process led to work between the NMRWB (and NWMB) and DFO to understand whether the Board's approval of an IFMP which contains harvest limitations may affect future NMRWB Total Allowable Take decisions. The Board and DFO concluded that while the IFMP and Precautionary Approach may affect the advice provided to the Boards, the Board's still have the prerogative to make different TAT decisions if appropriate.

Other

Beyond the shrimp fishery, the NMRWB has been involved in a couple of other activities related to commercial fisheries. An individual from Puvirnituq operated a commercial fishery for Arctic char on Mansel Island and in FY 2013 the NMRWB established a TAT for this fishery based on the harvest levels and the needs of the neighbouring communities. Qalingo was given an exploratory license from DFO.

In 2017, Makivvik requested an exploratory license for Greenland halibut (turbot) in the NMR. To consider the exploratory quota, the Board decided to hold a written hearing in spring 2017. Based on the submissions received, the Board recommended an effort-based exploratory quota.

The interest in sustainable commercial fisheries in Nunavik remains high, and in the future the Board may expect to see requests to approve TATs for commercial interests for species such as scallops, sea cucumbers, mussels, and sea urchins.

In February of 2012, the NMRWB received a proposal from Nunavik Biosciences Inc (NBI) to begin operating under a commercial license to harvest rockweed. The NMRWB reviewed the management plan and considered the potential impacts of rockweed harvesting on the region's ecosystem. The community of Kangirsuk was also consulted about the project. NMRWB forwarded a number of decisions to the Minister of Fisheries and Oceans regarding the proposal. All of the board's decisions (i.e., TAT, Basic Needs Level, and allocations) were accepted by the Minister, enabling Makivvik to move forward with plans to start commercial harvesting of rockweed.

PROJECT HIGHLIGHT:

Inuit Knowledge of Beluga in Southern Ungava Bay and the Marralik (Mucalic) and Ungunniavik (Whale) River Estuaries (2020)

As a result of the closure of southern Ungava Bay to beluga harvesting since 1986, very little information has been gathered on beluga use of the Marralik and Ungunniavik River Estuaries. As such, the NMRWB developed a study to gather Inuit knowledge of beluga in southern Ungava Bay and to explore Inuit perspectives on beluga management. Workshops and interviews were carried out in Kuujjuaq, Kangiqsualujjuaq, and Tasiujaq in 2019. Interviews were transcribed and thematically coded. Validation of report findings was carried out through follow-up workshops with participants in Kangiqsualujjuaq and Tasiujaq and individual sessions in Kuujjuaq in November 2019. The key findings included:

- Nearly all participants described the significance of beluga harvesting for them personally and for their families for food, identity, and culture.
- Participants emphasized that migration timing and routes depends on the ice, which is affected by winds and current. When ice breaks up in the spring, beluga start migrating west to summering areas in Hudson Bay. They have been observed migrating west through Ungava starting in May until August.

- Participants described and documented seasonal beluga use of all southern Ungava Bay's estuaries and rivers, and emphasized that they are not limited to use of Marralik and Ungunniavik. Many participants explained that beluga primarily access rivers to moult / change their skin and feed on fish.
- Participants reported that beluga are continuing to use Ungava Bay with some areas of higher abundance (e.g., around Tasiujaq), but that there are overall fewer migrating through Ungava since the 1980s.
- Participants described observing high numbers of beluga from 1940s to mid 1970s (e.g., pods of about 20 whales). In the late 1970s and early 1980s, participants, primarily from Kuujjuaq and Kangiqsualujjuaq, described observing a major decrease in beluga numbers around Marralik and Ungunniavik. Between late 1980s to today, substantial numbers of beluga continue to use areas in Ungava Bay seasonally.
- Nearly all participants described a range of complex negative impacts of the closure on beluga harvesting, knowledge of beluga and relationship to beluga. Participants described major impacts of the closure on their relationships to and use of Marralik and Ungunniavik estuary areas, as most participants no longer go to the area due to feeling unwelcome or having no reason to go.
- Nearly all participants preferred re-opening closure area, with most participants discussed conditions that should accompany any re-opening.

> LINK https://nmrwb.ca/wp-content/uploads/2020/06/IK-Beluga-Marralik-and-Ungava-Bay_Full-report_final.pdf

Photo: Tabia Lisa Annanack

PROJECT HIGHLIGHT:

Nunavik Inuit Knowledge and Observations of Polar Bears in Nunavik

The Board recognized that while Nunavik Inuit possess a wealth of knowledge about polar bears, very little of it has been formally documented and thus remained largely inaccessible in the context of the Board decision-making processes. Because the NMRWB aims to give full consideration to the knowledge, traditions and hunting practices of Nunavik Inuit in its decisions and actions, interviews with hunters and elders to gather Inuit Knowledge and observations from Nunavik communities harvesting from the three sub-populations of polar bears in the NMR were initiated. The NMRWB contracted Trent University to conduct this work with them and prepare reports on this knowledge. Interviews were conducted in 2014 and 2015, within all 14 communities:

- Southern Hudson Bay sub-population: Kuujjuaraapik, Umiujaq and Inukjuak
- Davis Strait sub-population: Aupaluk, Kangiqsualujjuaq, Kangiqsujuaq, Kangirsuk, Kuujjuaq, Quaqtaq and Tasiujaq
- Foxe Basin sub-population: Puvirnituq, Akulivik, Ivujivik and Salluit

The interviews were transcribed, analyzed using qualitative software, and synthesized to describe common responses to questions and look for patterns/trends in responses across approximately 150 participants. Results were compiled into draft reports and data validation was completed in all communities between 2014 and November 2017. The final reports for the Southern Hudson Bay sub-population and the Davis Straight sub-population were published in 2018 and 2019, respectively. The final report for the Fox Basin sub-population is underway and expected in 2025.

Photo: Johnny Oovaut

Key findings for both the Southern Hudson Bay and Davis Straight sub-populations included:

- In almost every interview, participants reported noticeable increases in polar bears since the 1970s and before the 2000s. Polar bears seem to have widened their distribution, with some participants reporting seeing bears in areas that they did not occupy in the past and the use of inland areas.
- Polar bears were reported to be important to Inuit in regard to culture, mental health, safety, sustenance, and economy. Participants described a sense of emotional wellbeing and excitement when seeing polar bears in their environment. They are seen as a symbol of the fortitude and strength of the people who live alongside them.
- A very common response among participants was that traditional stewardship practices were sufficient for conservation and that the introduction of a quota to limit polar bear hunting was unnecessary and possibly dangerous or counterproductive.
- Participants shared several stewardship practices that were common across the region. Without exception, hunting was based on needs of family or the greater community. Participants also generally limited their hunting to winter, as well as late fall and early spring when the coat and meat are best. Additionally, participants spoke about limiting their hunting to fully grown polar bears without small cubs.

Full reports are available on the NMRWB website:

> LINK Nunavik Inuit Knowledge and Observations of Polar Bears Southern Hudson Bay sub-population (2018)

> LINK Nunavik Inuit Knowledge and Observations of Polar Bears Davis Strait sub-population (2019)

Photo: Natsiq project

SECTION 4

Research Funding

To effectively fulfill the objectives of creating an effective wildlife management system, the NMRWB is required to play a role in wildlife research. To this end, the NMRWB is involved in research in a variety of ways (as discussed under Section 3).

4.1 THE NMR RESEARCH TRUST

To enable the NMRWB to carry out its research functions, the Government of Canada provided the NMRWB with a one-time payment of $5 Million as part of establishment.[31] In 2010, this funding was invested with MGI Securities, now called Industrial Alliance Private Wealth, and the profits generated from this investment are used to fund approved research projects in the NMR. In October 2016, a Trust Agreement was signed which isolated this research fund from the NMRWB's operation funds and appointed Trustees to govern these funds. Trustees were appointed from the Board and as well as an independent Trustee which has been a Makivvik staff person. The research fund remains invested with Industrial Alliance Private Wealth.

By 2013, the fund had grown sufficiently, enabling the NMRWB to continually support important research within the region. From the initial investment of $5 million, almost $1.5 million dollars have been invested in research projects over the years (Figure 10).

To gain a better understanding of research priorities, the NMRWB has conducted surveys with the elected members of the Anguvigait from the 14 Nunavik communities. This has facilitated the development of research priorities that the Board uses to guide funding decisions. The following species and topics have been considered high priority issues for research:

- Species: Beluga, Ringed Seal, Polar Bear, and Arctic Tern
- Environmental changes (e.g., changes in sea ice conditions)

31 NILCA 2006, Article 5.2.7.2

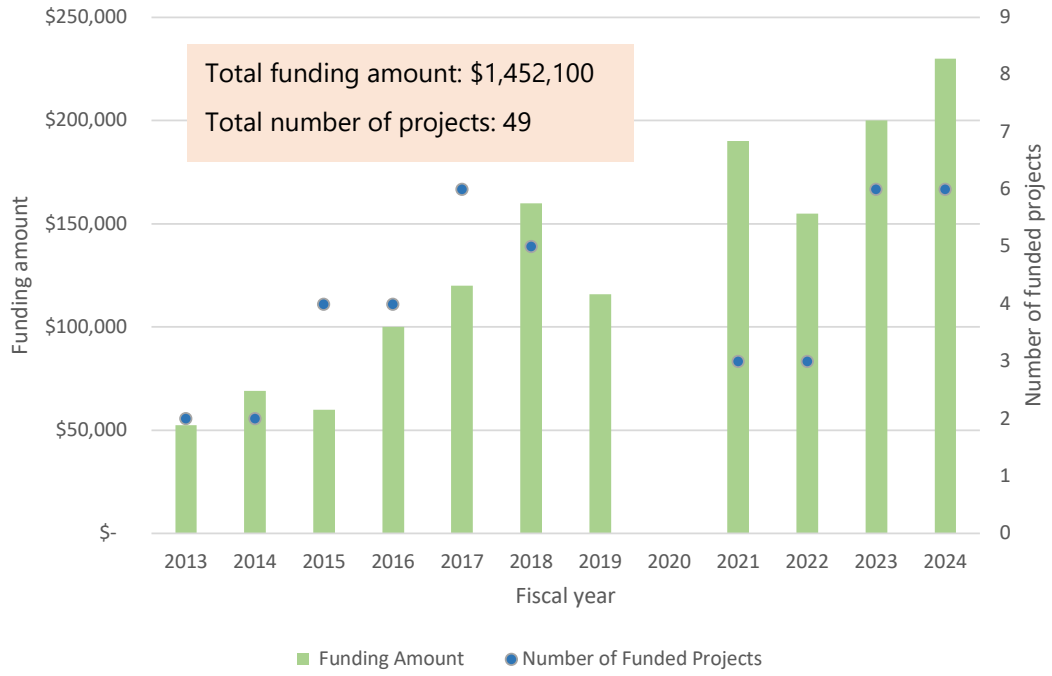


FIGURE 10. Amount of research funding and number of projects[32] supported by the NMRWB from FY 2013–2024

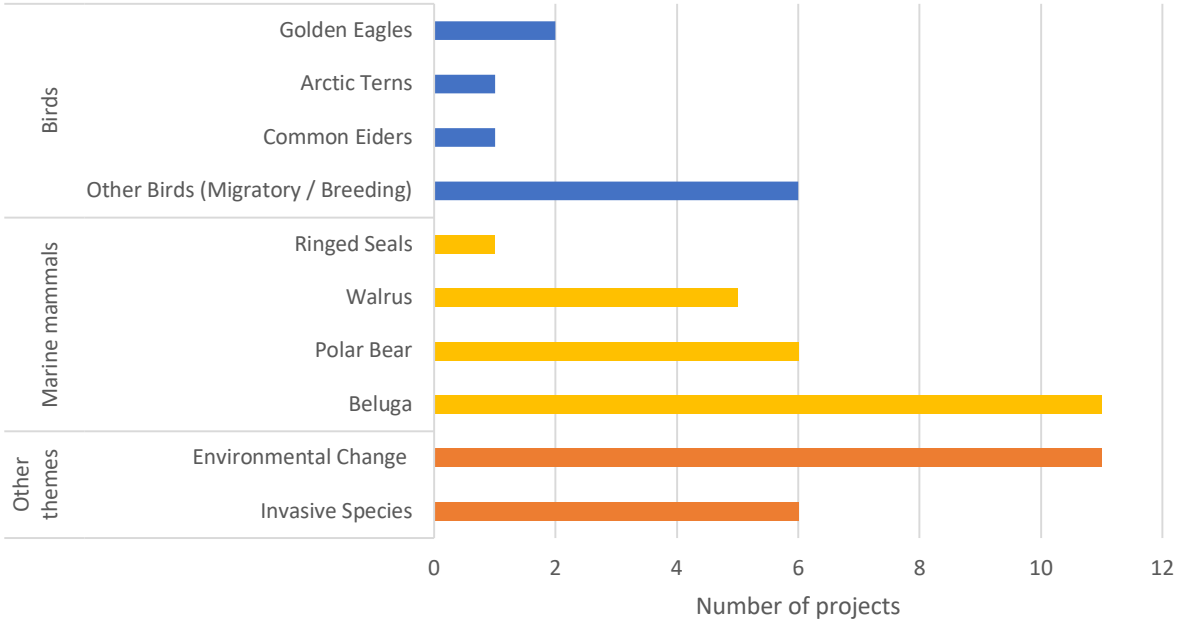


FIGURE 11. Number of research projects funded by the NMRWB from FY 2013–2024 grouped by theme[32]

- Potential impacts of development (e.g., marine shipping, construction of port infrastructure, etc.) on marine and coastal ecosystems
- Invasive species

As a result of the planning assumptions in the first implementation plan,[33] initially it was Federal and Territorial government researchers that were invited to submit applications for research funding. The NMRWB would consider funding research projects that fulfilled NMR research priorities, were being conducted within/or about the NMR, and that satisfies the following criteria:

- Meet the needs of the NMRWB for making management decisions;
- Recognize the value of Nunavik Inuit knowledge of wildlife and wildlife habitat;
- Provide training or employment opportunities for Nunavimmiut;
- Include meaningful consultation with, and reporting to, involved communities; and
- Strive to include participation of Nunavik Inuit.[34]

The 2021-2031 Implementation Plan, was revised opening up the ability for the NMRWB to fund other co-management partners in their research efforts. Since 2012,[35] the NMRWB has provided funding to 49 research projects (Figure 10), which address multiple themes important to the NMR. A detailed list of the projects approved for funding is provided in Appendix C and a summary of research themes is provided on Figure 11. Note that funding is allocated in the FY prior to the research project date (e.g. 2024 projects were awarded funding in March 2023) and as such have been included in the figures and tables below. There are several wildlife species that are important to Nunavik Inuit, and co-management partners, as illustrated by the research priorities identified above, and which are the focus of many of the projects. Figure 11 shows the species that have been the focus of research projects funded by the NMRWB over the years.

4.2 COMMUNITY RESEARCH FUND

Starting in 2023, the NMRWB started making funding available under the Community Research Fund to support community lead research. Projects that received funding are listed in Table 5.

32 This represents the number of projects approved for funding; however, not all projects proceeded to completion.

33 Refer to the Planning Assumptions, Guidelines and Explanations in Sheet #5(2)-2 of the NILCA Implementation Plan

34 nmrwb.ca, 2023

35 The NMRWB makes decisions in March for research that is to be funded the subsequent year. The figures and tables here show the years in which the projects were funded.

36 The subject area of research projects was assessed and for most projects there was a single species of focus, except for one project where two species were identified, and as such the total number shown here exceeds the number of projects by one. Some projects had a less species-specific approach and focused more generally on environmental change or invasive species.

Anguvigaq of Kuujjuaraapik submitted a community research project for Long Island (Qiqiratajuaq). This project was led by Salamiva Weetaltuk during the summer of 2023. The project lasted eight weeks. They set up the tents upon arrival. The leader taught Traditional Knowledge to students about how sea birds, land animals and marine mammals are handled when caught. She also taught traditional words to students. The project included monitoring of all kinds of animals and only found two belugas. The leader noticed that belugas used to stay around July and August and noticed that the belugas only showed up in the beginning of September. The leader is looking forward to another project for FY 2025 to compare to the survey from 2023.

TABLE 5. Community research projects funded by the NMRWB

Year	Projects
2023	**Community research funds approved: $144,265** • Traditional Knowledge sharing (did not proceed) – Kangiqsujuaq • Killer Whale Survey (moved to 2024) – Quaqtaq • Ammuumajuit, Clam bed localization – Kangirsuk • Four seasons seals Monitoring – Inukjuak • Uviluk and clam project – Kuujjuaq
2024	**Community research funds approved: $229,079** • Marralik-Ungunniavik Inuit Knowledge Sharing and Research Camp – Kuujjuaq and Kangiqsualujjuaq • Mussel Health – Tasiujaq • Killer Whale Survey – Quaqtaq (additional funds) • Seal Sampling Project – Aupaluk • Sea Food Sampling – Puvirnituq • Inuit Stewardship of Eastern Hudson Bay Beluga – Inukjuak, Umiujaq and Kuujjuaraapik • Traditional Survey of beluga – Umiujaq • Community Driven Bathymetry – Inukjuak

Anguvigaq of Umiujaq had their own community research project on Little Whale River Landslide Research that happened in the fall of 2022. The community wanted to study if belugas were affected by the landslide. Umiujaq local hunters were hired to monitor belugas on the south of Umiujaq in the summer of 2023. Their findings were that pods of belugas migrated to the area even if the mudslide had an effect on the soil of the river. The hunters noticed that belugas gave birth in the area. They observed that there were beluga pods in Little Whale River and different pods of beluga that arrived from west of the river that did not interact. The beluga pods coming from the west were bigger, and contained about 20 beluga, compared to those pods found in Little Whale River. The hunters also went to the north side of Umiujaq, known as Nastapoka river, and noticed that belugas are slowly going back to the area.

Anguvigaq of Puvirnituq had their own project on blue mussels and sea cods (Arctic cod). In 2022, locals noticed that the blue mussels and sea urchins were dying and declining near Puvirnituq. Puvirnituq has their own local divers, and the divers were hired locally. The divers were going to collect the samples and send them to Laval University further analysis.

Anguvigaq of Aupaluk requested funding for community research on seals. The project was to teach students on how to hunt, butcher and skin seals. Harvested seals will be sent to the Nunavik Research Center for further analysis.

Anguvigaq of Tasiujaq requested funds to do their own research on blue mussel health. The project is to collect mussels in two areas. The local people would collect the samples in collaboration with Laval University. The University would further analyse the population, its density and diet of the mussels.

PROJECT HIGHLIGHT:

Marralik-Ungunniavik Inuit Knowledge Sharing and Research Camp (2024)

Provided by the Anguvigaq

In 1986, harvesting of belugas was banned in the Marralik-Ungunniavik estuary (referred to as the "Mucalic estuary" by DFO), an important hunting area between Kuujjuaq and Kangiqsualujjuaq, due to concerns about the abundance of Ungava Bay beluga. This ban had huge impacts on food security, knowledge transfer to youth, and food sharing in those communities. For many years, the Anguvigait of Kuujjuaq and Kangiqsualujjuaq raised concerns about the existence of this beluga stock (many people said that belugas were no longer summering in that area) and the impact of the ban on knowledge transmission to the younger generation. They requested a small hunt and a research project to address these issues.

In 2021, under the leadership of James May and with the direction of the Anguvigait, we coordinated a youth camp and submitted an application to the NMRWB for a small beluga hunt. It has been exciting to see the first legal hunt of belugas take place in those areas after a 35-year complete ban, and to see food shared with the communities.

Since then, an Inuit knowledge-sharing and research camp was established every year to monitor belugas and train youth. It is an opportunity for hunters and elders to share their knowledge of the Marralik-Ungunniavik area, harvesting, and safe food preparation. It is also an opportunity to record beluga observations and sample Marralik beluga using non-lethal methods (eDNA and skin samples from the water) to provide genetic samples to DFO. Last year, a hydrophone project was initiated, recording the underwater calls of belugas to

Photo: Felix St. Aubin

document where, when, and for how long belugas visit Marralik-Ungunniavik, and to measure how much this differs between seasons and years. The research will help re-evaluate stock definitions and potentially open up the area to harvest.

This year (2024), the local Anguvigait took over the hunting portion of this project and had a great two-week camp hosting over twenty youth from their communities. Simultaneously, the Anguvigaq managed a research camp, including land observations, drone surveys, and hydrophone monitoring of belugas.

PROJECT HIGHLIGHT:

Natsiq-Ringed Seal Monitoring and Education Program (2019–current)

Provided by NMRWB staff

Ringed seals have been harvested by Inuit for thousands of years and are still important culturally and for meeting social, economic and dietary needs, with the highly nutritious meat providing essential elements for strong blood. The ringed seal also occupies a pivotal role in the ecosystem, as both a predator and a prey species. The ringed seal population in the NMR is abundant, and the ringed seal population in Canada has been designated as "Special Concern" by the Committee on the Status of Endangered Wildlife in Canada in the most recent status assessment. However, as the most ice-adapted seal species, ringed seals are vulnerable to climate change, which is expected to have a significant impact on sea ice habitats and the closely linked Arctic food web. The NMRWB and co-management partners have identified significant gaps in information and knowledge on ringed seals in the NMR.

Nunavik hunters and their elected representatives have also expressed concerns about ringed seals. These concerns varied by community, but they frequently included changes in population numbers, distribution, body condition and diet, and increased signs of illness. Furthermore, for such a widespread and important species, ringed seals are underrepresented in scientific literature, and Nunavik Inuit stressed the need for additional research. Most notably, Nunavik Inuit expressed concern about the health of Inuit who consume seals and after became sick.

Given these broad concerns and knowledge gaps, the NMRWB in partnership with four communities as well as Makivvik launched a community-based monitoring project in the Spring of 2019 to collect information on ringed seals in the NMR and to help address some of the issues identified by the hunters. The communities involved in this monitoring project are Inukjuak, Tasiujaq, Kangiqsujuaq and Kuujjuaq. In each community, the involvement of the local Anguvigaq and the school is key for the long-term success of the project.

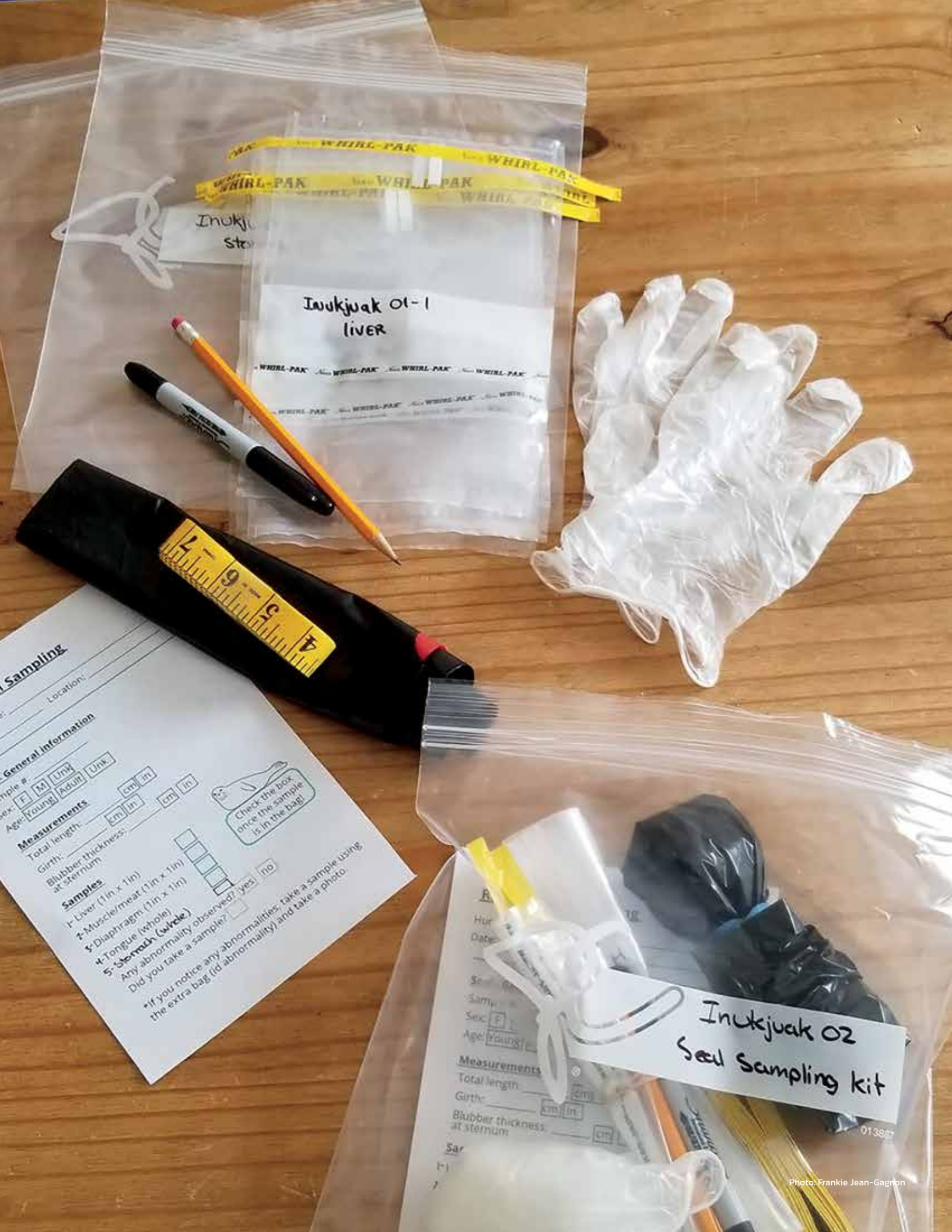


Photo: Frankie Jean-Gagnon

This project was initiated to respond to three objectives:

- Collect ringed seal harvest information and tissue samples to document seal health, condition, and diet, as well as distribution and habitats.
- Develop a community-driven program by building community capacity for seal and marine wildlife monitoring in Nunavik.
- Engage students and youth in geographically and culturally appropriate educational activities.

The project was built on two main components: sampling by hunters and youth educational activities. The sampling with hunters has been ongoing in the four communities. Samples are sent to the Nunavik Research Center in Kuujjuaq for analysis. A few cases of Toxoplasma have been confirmed with the samples provided, and the results are being discussed with the Nunavik Region Board of Health and Social Services. No sample tested positive for trichinella. Analysis of heavy metals and contaminant levels is still underway.

The project includes diverse youth educational activities:

- Hunting excursions: working with the culture teachers, the students are brought out on seal hunting excursions to learn about seal hunting, butchering and sampling. Some of those excursions are done in partnership with Sirivik, a local not-for-profit organization in Inukjuak advocating for food security.
- Seal stomach dissection: working with the science teachers, the students open seal stomachs in the classroom to look at stomach contents and learn about seal diet.
- Seal skin workshop: Seal skin preparation workshops with elders are organized at the school during culture or science classes.
- Full seal butchering: working with the culture teachers, all students in the school are brought together to observe a traditional full seal butchering.
- Culture week: the project funds activities related to seals, e.g., seal skin preparation and seal skin rope-making sessions organized by elders, during the culture week at the school (in Inukjuak so far).
- A youth coordinator was hired in Inukjuak to assist with the sampling project. The coordinator has also been conducting boat-based surveys in the summers of 2020 and 2022 to help determine seal abundance, distribution, and habitat near Inukjuak. The surveys are in a testing phase, with the hope to have similar surveys done in other communities if the results are satisfactory.

More recently, the project started to include seal skin preparation workshops to increase women's participation in the project. The first workshop was held in March 2023 and led by an elder.

A meeting has been held with hunters from all communities to review the project and its activities, discuss the changes needed for the sampling program and brainstorm about the next steps.

SECTION 5

Public Engagement and Communications

Communications is an essential part of our work to ensure that everyone knows the role of the NMRWB but also that co-management partners also understand their roles. Communication facilitates a cohesive and coordinated approach to wildlife management. The NMRWB is currently developing a communications strategy in collaboration with others involved in wildlife management in Nunavik. We need to communicate our bottom-up management approach with others and good communication helps us move forward in this work. Public hearings are at the core of wildlife management decisions.

The Board aims to communicate regularly with all co-management partners and to ensure that Nunavik Inuit receive information in a variety of culturally relevant ways. The NMRWB has been particularly invested in fostering understanding of beluga management systems and other significant wildlife decisions. The Board takes a multipronged approach to communications utilizing regional radio, attendance to other regional meetings (e.g. Anguvigaq AGM) and social media to communicate about its decisions, activities and major events, such as the federal court case in Inukjuak related to the polar bear decisions. The Board restructured its website in 2014. The website presents a wide array of information from meeting materials and significant Board decisions to research highlights and hearing records. The NMRWB has also occasionally produced animations related to specific initiatives (e.g. beluga management, and best practices in administration for the Anguvigaq).

PROJECT HIGHLIGHT:

Searching for Golden Eagle Nests Study (2023)

Provided by NMRWB staff based off of reports provided by the researcher team

During the 20th century, the Golden Eagle (*Aquila chrysaetos*) population decreased significantly in North America, mostly due to human activities such as hunting, trapping and disturbance. In 2005, the species was designated as "vulnerable" in Québec in accordance with the Loi sur les espèces menacées ou vulnérables (RLRQ, c. e-12.01). Of the whole breeding population of Eastern North America, more than 60% nest in northern Québec. This means the Nunavik region is essential to maintain healthy population of Golden Eagles. Given the uncertainties in the population trends (EROPQ, 2020), the recovery plan put in place for the Golden Eagle was extended for another 10 years (2020–2030).

This project is led by the Ministère de l'environnement, de la lutte contre les changements climatiques, de la faune et des parcs (MELCCFP) in collaboration with Canadian Wildlife Service (CWS-ECCC). It aims to address different objectives from the recovery strategy mentioned above. Amongst others, it is to explore areas with a high nesting potential but with no data recorded to this day, in order to get an accurate estimation of the Golden Eagle breeding population size in Nunavik and other parts of northern Quebec. The first year of this project focuses on the Hudson Bay Area, and the MFFP aims to conduct a second year of research in the Hudson Strait.

The whole project will further allow to have a better understanding of the distribution of Golden Eagle in Nunavik.

Photos: Alexandre Anctil

PROJECT HIGHLIGHT:

Understanding Ballast Water as a Pathway for Introduction of Aquatic Invasive Species in the Arctic (2017)

Provided by NMRWB staff based off of reports provided by the researcher team

The Hudson Bay Complex (HBC) is among the most rapidly warming regions of the Canadian Arctic and is subject to expanding mine production, shipping and re-opening of a major port in Churchill. Impacts of climate warming and shipping lead to possible loss or reduction of northern species, as well as range expansion and introduction of southern species including invasive species. This could have negative effects on local ecosystems & food security. Fisheries and Oceans received funding for three years (2019 to 2022) to extend current knowledge of Arctic coastal environments and possible effects of change in Hudson Bay Complex.

The focus of this project was fourfold:

- Document nearshore species, key commercial species, subsistence species and High-risk invasive species (e.g., soft-shell clam, *Mya arenaria*).
- Community-led collection of coastal ecosystem data across HBC. This will add to baseline information and tracking future changes in Arctic coastal diversity
- Develop an understanding of different organisms (e.g., aquatic plants, amphipods, clams, and fish) as indicators of resistance and resilience towards environmental change (e.g., temperature) in HBC. This included experimental studies (Fisheries and Oceans) and a plan to establish a lab in a northern research station to look at both native and invasive species. However, COVID has impacted some of this. Particularly the Northern research stations

- Involve community members with project planning and data collection (what species? where to sample?) and who to hire including both youth and adults to work with team and lead ecosystem data collection. The research team hopes to receive feedback from the communities interested in being involved in the project to tell us their concerns and observations. At the end of the project, the team hopes to receive what the best way would be to share plans and report results of research with community.

In November 2021 and from July to August 2022, DFO was in Kuujjuaraapik-Whapmagoostui. The team met with the local Anguvigaq (LNUK) and established up to 6 potential long term sampling sites. Different biodiversity sampling techniques were conducted for these sites including beach walks, beach seining, gill netting, plankton tows, Eckman grabs and the collection of environmental data. In July 2022, a lab was shipped from the Institute Maurice Lamontagne and assembled at the Centre des Etudes Nordiques. Juvenile sculpin and urchin were collected and temperature experiments were used to assess resistance and resilience towards environmental change. Data is being analyzed and reports written.

Photo: Annie Nuvalingnga

PROJECT HIGHLIGHT:

Arctic Tern Inuit Knowledge Study (2018)

Provided by NMRWB staff based on Henri et al., 2020

Arctic terns are a key species in the Arctic ecosystem and are an important species for Inuit in Nunavik. Terns are used as indicators of important biological areas, and tern eggs are harvested and eaten. In recent years, Inuit in various communities in Nunavik have reported that numbers of Arctic tern are in decline and have voiced concerned about the situation. Scientific surveys conducted in some areas of the Canadian and circumpolar Arctic also appear to indicate that the Artic tern population may be declining from past levels. Starting in the FY 2018, the NMRWB approved funding towards an Inuit knowledge pilot project led by Environment and Climate Change Canada (ECCC) investigating the apparent decline of Arctic Terns in Nunavik. The community of Kuujjuaraapik was chosen as the pilot community for the study.

The primary goal of the project was to document Inuit knowledge about Arctic tern (or Takatakiaq) distribution, abundance, and habitat in Nunavik in order to support ongoing conservation initiatives and identify community-based monitoring opportunities. Individual interviews and workshops were conducted with 11 Inuit harvesters and elders from Kuujjuaraapik to document their knowledge of Arctic tern cultural importance, ecology, and stewardship. Participants reported a regional decline in Arctic tern numbers, starting in the early 2000s on nesting islands near Kuujjuaraapik. The following 6 factors were identified as possible reasons for the decline:

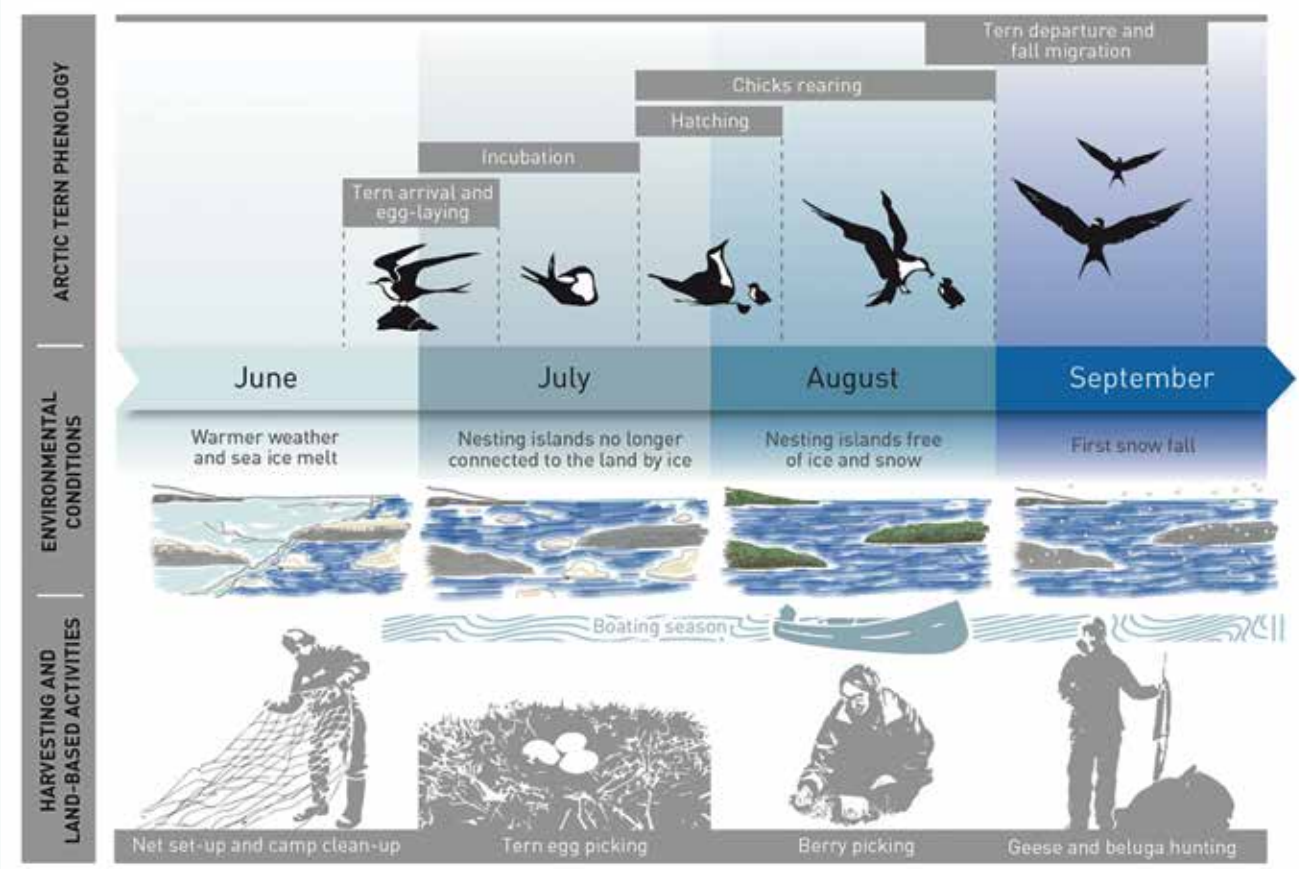
1. Local harvest through egg-picking;
2. Nest disturbance and predation;
3. Abandonment of tern nesting areas;
4. Climate change;

5. Natural abundance cycles within the Arctic tern population; and
6. Decline of terns' prey, especially capelin in the region.

The Inuit participants gave the following recommendations for Arctic tern stewardship and protection:

1. Conduct more research;
2. Let nature take its course;
3. Conduct an awareness campaign;
4. Implement an egg-picking ban;
5. Coordinate local egg harvest;
6. Start tern-farming;
7. Protect Arctic terns across their migration route; and
8. Harvest foxes predating on terns

https://nmrwb.ca/wp-content/uploads/2020/12/Henri.et_.al_.2020_IK-about-Arctic-Tern-Takatakiaq_journal.pone_.0242193.pdf



PROJECT HIGHLIGHT:

Community-based monitoring and Inuit knowledge of sea-ice, wildlife entrapments, and oceanography (2024)

Provided by the Arctic Eider Society

Since 2014, the NMRWB has supported successful long-term community-based research and monitoring as part of the East Hudson Bay/James Bay Community Driven Research Network (CDRN). Strong support at the community and regional levels have led to important results gathered by harvesters in Inukjuak, Umiujaq, and Kuujjuaraapik addressing key gaps in baseline monitoring in the region in partnership with parallel programs in Chisasibi and Sanikiluaq.

Initially focusing on oceanographic monitoring, trained harvesters employed ice cores, water samples, and devices that measure conductivity (salinity), temperature, and depth (CTD) in order to understand the source and composition of water in different locations in East Hudson Bay. Ongoing CTD sampling continues, providing 10 years of baseline oceanographic data for the region addressing long-outstanding community concerns about cumulative impacts in the region.

Wildlife entrapments were an early priority and more advanced wildlife and ice monitoring programs have since been introduced. These include a food-web study of marine contaminants and an Inuit Knowledge Study of long-term indicators. Together, these types of projects are expanding the scope of the program to provide a holistic view of changing environmental conditions in the region. Real-time monitoring is also performed using

the SIKU app. This is a tool co-developed by harvesters in the network that is now supporting monitoring across Nunavik, and the Arctic more broadly, by and for Indigenous communities. Dangerous ice conditions are shared with the community in near-real time, contributing to harvester safety. This work is helping document year-round real-time harvest resource inventory and baseline data for climate change monitoring across a wide range of species and key indicators. This work can contribute to local decision making for wildlife management and empower communities with tools for self-determination in running their own programs.

In addition to providing real-time monitoring results to East Hudson Bay communities, this work has contributed to publications that provide insight into the changing nature of the bay, including:

- Freshwater and nutrient distributions in contrasting coastal domains of Hudson Bay and James Bay **>LINK TO PROJECT**
- Bioaccumulation in the Marine Food Web of Hudson Bay, Canada. (Inuktitut version) **>LINK TO PROJECT**
- Rare earth elements in freshwater, marine, and terrestrial ecosystems in the eastern Canadian Arctic **>LINK TO PROJECT**
- Under-Ice Hydrography of the La Grande River Plume in Relation to a Ten-Fold Increase in Wintertime Discharge **>LINK TO PROJECT**

For more information on the project, visit the Arctic Eider Society website. To view real-time monitoring observations, visit the Project Profile on SIKU.

Photo: Carson Tagoona

Appendix

APPENDIX A

List of Key Acronyms

Acronym	Full Name
AMBI	Arctic Migratory Birds Initiative
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CWS	Canadian Wildlife Service
DFO	Department of Fisheries and Oceans Canada
ECCC	Environment and Climate Change Canada
EMRIRB	Eeyou Marine Region Impact Review Board
EMRPC	Eeyou Marine Region Planning Commission
EMRWB	Eeyou Marine Region Wildlife Board
GN	Government of Nunavut
ICBCM	Indigenous Community-Based Climate Monitoring Program
ITK	Inuit Tapiriit Kanatami
JBNQA	James Bay and Northern Québec Agreement
LNUK	Anguvigait; Local Nunavimmi Uumajulirijiit Katutjiqatigiinninga (Local Hunters Association)
NILCA	Nunavik Inuit Land Claims Agreement

NMR	Nunavik Marine Region
NMRPC	Nunavik Marine Region Planning Commission
NMRIRB	Nunavik Marine Region Impact Review Board
NMRWB	Nunavik Marine Region Wildlife Board
NQL	Non-Quota Limitation
NTI	Nunavut Tunngavik Inc.
NWMB	Nunavut Wildlife Management Board
PBAC	Canadian Polar Bear Administrative Committee
PBTC	Canadian Federal/Provincial/Territorial Polar Bear Technical Committee
RNUK	Anguvigaq; Regional Nunavimmi Uumajulirijiit Katutjiqatigiinninga (Regional Hunters Association)
SARA	Federal Species at Risk Act
TAH	Total Allowable Harvest
TAT	Total Allowable Take

APPENDIX B

Board Meeting and Conference Call Dates and Locations

Year	Regular Board Meeting Dates and Locations	Additional Conference Calls and Meetings
2010	March 2009, Montreal, QC May 18–19, 2009, Inukjuak, QC October 27–28, 2009, Kuujjuaq, QC December 16–17, 2009, Ottawa, ON January 2010 (conference call) March 16–17, 2010 (conference call)	
2011	May 18–20, 2010, Inukjuak, QC August 4–5, 2010, Montreal, QC November 1, 2010, Kuujjuaq, QC December 6–8, 2010, Montreal, QC March 1–4, 2011, Quebec City, QC	June 29, 2010 October 22, 2010 January 19, 2011
2012	July 5–7, 2011, Ivujivik, QC October 11–13, 2011, Montreal, QC December 13–15, 2011, Inukjuak, QC February 14–16, 2012, Montreal, QC	April 7, 2011 May 9, 2011 May 18, 2011 May 26, 2011 September 26, 2011 October 7, 2011 November 3, 2011 February 20, 2012
2013	June 19–20, 2012, Quaqtaq, QC October 16–18, 2012, Aupaluk, QC December 14–18, 2012, Montreal, QC March 5–7, 2013, Kuujjuaq, QC	August 7, 2012 November 14, 2012 January 15, 2013 March 18, 2013

2014	June 4–6, 2013, Inukjuak, QC October 8–10, 2013, Kuujjuaq, QC December 16–19, Montreal, QC March 11–13, 2014, Kuujjuaq, QC	May 8, 2013 August 27, 2013 October 30, 2013 November 25, 2013 January 9, 2014 March 20, 2014 March 24, 2014
2015	June 9–12, 2014, Kuujjuaraapik, QC October 21–23, 2014, Kuujjuaq, QC December 6–9, 2014, Montreal, QC March 10–12, 2015, Inukjuak, QC	April 15, 2014 May 14, 2014 May 27, 2014 June 27, 2014 January 13, 2015 March 16, 2015
2016	June 2–4, 2015, Salluit, QC October 6–8, 2015, Kuujjuaq, QC December 1–3, 2015, Montreal, QC April 5–10, 2016, Inukjuak, QC	September 9, 2015 November 2, 2015 (Executive Committee) January 8, 2016 January 22, 2016 January 27, 2016 February 18–19, 2016 February 25, 2016 March 8, 2016

2017	June 13–16, 2016, Ottawa, ON October 10–14, 2016, Kuujjuaq, QC December 13–15, 2016, Montreal, QC February 27–March 2, 2017, Kuujjuaraapik, QC	April 16, 2016 April 25, 2016 May 26, 2016 June 27, 2016 June 29, 2016 August 10, 2016 August 18, 2016 August 22–24, 2016 (Executive Committee) September 15, 2016 September 18, 2016 November 4, 2016 November 7, 2016 January 23, 2017 January 26, 2017 March 6, 2017 March 8, 2017 March 9, 2017
2018	June 5–8, 2017, Ottawa, ON September 18–21, Kuujjuaq, QC December 18–21, Montreal, QC February 26–March 2, Kuujjuaraapik, QC	May 1–2, 2017 May 18, 2017 June 16, 2017 July 18, 2017 August 22, 2017 October 18, 2017 February 19, 2018
2019	June 3–8, 2018, Radisson, QC September 24–28, 2018, Inukjuak, QC December 5–8, 2018, Montreal, QC March 5–7, 2019, Montreal, QC	April 13, 2018 August 8, 2018 December 4, 2018 January 10, 2019 March 25, 2019

2020	June 12–15, 2019, Ottawa, ON August 26–29, 2019, Kuujjuaq December 10–13, 2019, Montreal, QC March 16–19, 2020 (conference call)	April 18, 2019 May 2, 2019 November 19, 2019 January 30, 2020 February 19, 2020 February 24, 2020
2021	June 2–4, 2020 (conference call) September 29–October 1, 2020 (conference call) December 1–3, 2020 (conference call March 23–25, 2021 (conference call)	April 23, 2020 June 26, 2020 July 3, 2020 July 22, 2020 August 5, 2020 August 27, 2020 December 1, 2020 January 27, 2021 February 8, 2021
2022	June 7–9, 2021 (conference call) September 28–30, 2021 (conference call) December 14–16, 2021 (conference call) March 22–24, 2022 (conference call)	April 12, 2021 April 16, 2021 (with EMRWB) June 1, 2021 June 4, 2021 July 6, 2021 July 22, 2021 September 2, 2021 September 15, 2021 October 28, 2021 November 28, 2021 January 12, 2022 February 1, 2022 February 24, 2022 March 17, 2022

2023	June 14–16, 2022, Iqaluit, NU September 27–29, 2022, Montreal, QC December 12–14, 2022, Montreal, QC March 27–29, 2023, Kuujjuarapik, QC	April 7–9, 2022 (Strategic Planning, Montreal, QC) April 11–13, 2022 (Beluga Annual Review with EMRWB, Montreal, QC) May 11, 2022 May 31, 2022 August 29, 2022 November 24–25, 2022 (with EMRWB) December 9, 2022 (Strategic Planning) January 24, 2023 (Strategic Planning) February 22, 2023 March 23, 2023

APPENDIX C

Research Projects Funded by the NMRWB

Year	Projects
2013	• Ringed seal abundance and distribution (Aerial survey of ringed seals in Hudson Bay) • Conservation biology of Common Eiders in Nunavik: investigating the impacts of disease and nest predation by polar bears
2014	• Nunavimmiut knowledge of walrus and population health in Nunavik marine areas • Participation of Inuit communities in the development of the Atlas of the Breeding Birds of Québec for the Nunavik coastal area
2015	• Invasive Species monitoring in Hudson Bay • Community-based monitoring of sea-ice, wildlife entrapments, and oceanography: assessing cumulative impacts of hydroelectric developments and environmental change in East Hudson Bay • Survey of the subsistence harvest of migratory birds in four communities in Nunavik • Understanding ballast water as a pathway for introduction of aquatic invasive species in the Arctic
2016	• Aerial survey of Nunavik beluga • Community-based monitoring of sea-ice, wildlife entrapments, and oceanography: assessing cumulative impacts of hydroelectric developments and environmental change in East Hudson Bay • Biopsy darting of beluga whales in the Nunavik Marine Region • Understanding ballast water as a pathway for introduction of aquatic invasive species in the Arctic

2017	• Stock discrimination and abundance of walrus • Aerial survey of Southern Hudson Bay polar bears • Community-based monitoring of sea-ice, wildlife entrapments, and oceanography: assessing cumulative impacts of hydroelectric developments and environmental change in East Hudson Bay • Biopsy darting of beluga whales in the Nunavik Marine Region • Understanding ballast water as a pathway for introduction of aquatic invasive species in the Arctic • Shorebirds and breeding birds survey in Inuit communities, in the Nunavik coastal area and on Mansel Island
2018	• Stock discrimination and abundance of walrus • Survey of Davis Strait polar bears • Community-based monitoring of sea-ice in Eastern Hudson Bay • Genetic analysis of beluga tissue and eDNA • Study of ballast waters (funding to support travel of Salluimmiut to participate in surveys in Nunatsiavut
2019	• Study of polar bear predation on seabirds on islands at the mouth of Leaf Bay, Ungava Bay (funding carried over from 2018) • Inuit knowledge of Arctic Terns in Nunavik • Beluga genetic sampling • Analysis and additional work need for population survey of Davis Strait polar bears • Community-based monitoring of sea-ice in Eastern Hudson Bay • Observational population studies of the Mucalic Estuary and the Ungava Bay beluga stock • Arctic marine invasive species • Qilalugene project to re-assess beluga genetics across Canada

2021 / 2022[37]	• Aerial survey of beluga in Hudson Bay (funding carried over to 2022) • Observation-based research of beluga in Southern Ungava Bay (project not carried out, funding not distributed) • Further analysis of genetic mark-recapture data of Davis Strait polar bears (project not carried out, funding not distributed) • Arctic marine systems resilience to environmental change (funding carried over to 2022) • Community-based monitoring and Indigenous Knowledge of sea-ice and wildlife (funding carried over to 2022) • Survey of breeding birds in Ungava Bay (project not carried out, funding not distributed)
2023	• Searching for Golden Eagle nests in the coastal Nunavik Marine Region • Community-based monitoring and Inuit knowledge of sea-ice, wildlife, and oceanography in Eastern Hudson Bay • Aerial survey of Ungava Bay beluga and the Mucalic Estuary • Aerial survey of walrus stocks in South and East Hudson Bay • Data acquisition of Traditional Knowledge and field observations for the Quebec Breeding Bird Atlas (funding carried over from previous year) • Benthic monitoring and climate change in Hudson Bay (funding carried over from previous year)
2024	• Community-based monitoring and Inuit knowledge of sea-ice, wildlife entrapments, and oceanography • Community engagement, scientific tools, and knowledge exchange for Nunavik marine mammal research • Quantifying the impact of global changes on Nunavik walruses • Community-based polar bear research • Search for Golden Eagle nests in Nunavik to better protect it • Marralik-Ugunniavik Inuit knowledge sharing and research camp (also funded through the Community Research Fund)

37 Due to COVID restrictions, some projects initially funded in 2021 requested to carry forward their funding.