

EXECUTIVE SUMMARY: Inuit Knowledge of Beluga of Southern Ungava Bay and the Marralik (Mucalic) and Ungunniavik (Whale) River Estuaries

In 1986, Fisheries and Oceans Canada (DFO) closed an area of southern Ungava Bay to beluga harvesting that includes the Ungunniavik (Whale) and Marralik (Mucalic) River estuaries (“the Marralik-Ungunniavik closure”). The Marralik-Ungunniavik closure was established by DFO to conserve the Ungava Bay stock of beluga whales. The Ungava Bay stock is one of three beluga stocks that use Ungava Bay, but the only stock that historically summered in Ungava Bay. This stock was drastically reduced from its historical numbers by commercial whale harvesting.

The signing of the Nunavik Inuit Land Claims Agreement (NILCA) in 2006 established the Nunavik Marine Region Wildlife Board (NMRWB) as the main instrument of wildlife management in the Nunavik Marine Region (NMR). The NMRWB is responsible for making wildlife management decisions with the goal of maintaining vital, healthy wildlife populations capable of sustaining harvesting needs. Beluga management, including decisions about the Marralik-Ungunniavik closure, are now under the authority of the NMRWB. However, since the closure was put in place, very little information has been documented about beluga use of Marralik and Ungunniavik. This has made it difficult for the NMRWB to make an informed beluga management decision for this area.

As a result, the NMRWB developed and carried out a study to gather Inuit knowledge of beluga of southern Ungava Bay and explore Inuit perspectives on beluga management. Workshops and interviews with participatory mapping were carried out in Kuujjuaq, Kangiqsualujjuaq and Tasiujaq in April 2019. Participants were selected by the Local Nunavimmi Umajulirijit Katujjigatigiinningit (LNUK or Anguvigaapik). 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. Feedback from Kuujjuaq participants led to three additional interviews with Kuujjuaq Elders in November 2019. Overall, there were 10 participants from Kuujjuaq, 10 from Tasiujaq and 11 from Kangiqsualujjuaq. Interviews were transcribed and thematically coded. Detailed findings are presented in the full study report, and a summary of **key findings** are presented below:

IMPORTANCE OF BELUGA HARVESTING

Nearly all participants described the significance of beluga harvesting for them personally and for their families for food, identity and culture. Participants described strong ties to Marralik and Ungunniavik before the closure. The seasonal abundance of beluga and short travel distance made this area important in the past for beluga harvesting, learning harvesting practices and passing down knowledge to the next generation.

REGIONAL DISTRIBUTION AND MIGRATIONS

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.

In the fall, beluga have been observed migrating east towards overwintering areas off the Labrador Coast. The fall migration was described as taking place from late July to late November, with most observations in September and October.

Participants explained that ice cover prevents beluga observations in the winter, but that does not mean that they are absent. A couple of observations of beluga in polynyas in the winter in the 1960s were shared. One participant observed a unique event from the air in February 1973, where about a thousand beluga were in open water surrounded by ice in central Ungava Bay.

SEASONAL USE OF RIVERS, ESTUARIES AND COAST

Beluga use the coastal, estuary and river areas of Ungava Bay seasonally, based on migration timing. Participants described and documented seasonal beluga use of all of southern Ungava Bay's estuaries and rivers, and emphasized that they do not just use Marralik and Ungunniavik.

Many participants explained that beluga primarily access rivers to 1) moult and 2) feed on fish. Participants explained that beluga can have young at any time and place along their migration route, and that calving occurs in rivers by chance.

Nearly all participants described beluga use of rivers for moulting in July and August, describing how beluga go to the falls or rapids to change, clean, or shed their skin. The shallow and muddy waters of Marralik were described by many as being a preferred area for beluga to moult before the closure. Post-closure observations were limited as most participants bypass the area since the closure was put in place.

July and August are also the peak months for beluga harvesting. Participants explained that in the summer months beluga generally use areas off the coast during low tide to feed on fish, and move into rivers during high tide. Many described timing beluga hunting before the closure to the full moon or new moon; hunters would watch for beluga moving in with the tide and would follow them into rivers to hunt them. Many participants shared accounts of this harvesting practice for the Ungunniavik and Marralik rivers before the closure. Marralik's muddy waters meant that it was important for hunters to harpoon before shooting to not lose their kill.

CHANGES IN HABITAT USE OVER TIME

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 primarily from Kuujjuaq and Kangiqsualujjuaq reported observing decreasing beluga use of Marralik and Ungunniavik in the late 1970s and early 1980s. Most participants linked these changes to two main pressures: 1) increases in noise and disturbance from outboard motors and shipping, and 2) changes in harvesting pressure and practices (i.e. increased chasing of beluga in open water rather than

harpooning in rivers), facilitated by the spread of outboard motor use. One participant explained that noise from outboard motors, ships, and planes travels differently when the water is shallower, and that beluga may be experiencing higher noise impacts in the Ungunniavik and Marralik estuaries as a result of the shallow nature of the area. Some participants noted that observed changes in environment (changes in ice, warming, river erosion) may also have an effect. Other changes noted around Marralik and Ungunniavik included increases in black bear and ugjuk (bearded seal) and decreases in geese and natsiq (ringed seal). Observations of beluga in Marralik and Ungunniavik by participants post-closure were limited as most bypass the area.

POPULATION TRENDS

Commercial whaling around Nunavik by Hudson Bay Company from the mid 1800's until early 1900's caused major beluga population decline, including in Ungava Bay. Some participants noted the locations of commercial whaling posts used for netting beluga on the Kuujjuaq river. Still, 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 Kuujjauq and Kangiqsualujjuaq described observing a major decrease in beluga numbers around Marralik and Ungunniavik. This population change was linked by participants to increases in noise and disturbance from outboard motors and shipping and changes in harvesting pressure and practices facilitated by the spread of outboard motor use, combined with the long-term impacts of commercial whaling on the beluga population. It is unknown if the group of a thousand beluga observed in the ice in Ungava Bay in February 1973 were trapped and perished or not; there is a possibility that this was a catastrophic event that also affected population numbers.

Between late 1980s to today, substantial numbers of beluga continue to use areas in Ungava Bay seasonally. Most participants bypass the Marralik-Ungunniavik closure area so have few opportunities to observe beluga there. A few participants noted occasional observations of individual beluga or small pods (generally under five individuals) around Marralik and Ungunniavik in the post-closure period; most of these were observed from the air during other activities (e.g. commercial flying, surveying other species). The limited observations of beluga in the course of substantial flying time indicate sporadic use of the area by beluga since the closure.

APPEARANCE AND STOCKS

Some participants noted differences among groups of beluga, while others did not describe differences. Some described how beluga that migrate through Ungava to Hudson Bay are distinct from beluga that migrate through the Hudson Strait to Nunavut or that come from Greenland (which may be the same group or separate groups). Some participants noted that beluga that used Ungava Bay pre-closure were smaller, had straighter tail ends (flukes), were softer, and had less maqtaq while beluga that used the Hudson Strait and migrated to Nunavut had a curvier tail ends (flukes) and more maqtaq. Further, participants explained that they are observing fewer numbers of these smaller beluga that use Ungava today than in the past, and greater numbers of the larger Hudson Strait beluga.

Some participants explained that pre-closure, some of the beluga used to stay behind in Ungava Bay after the spring migration and were summer residents of Ungava Bay. Some explained that they have not observed this occurring anymore post-closure, while others maintained that some beluga still stay behind. There were varied observations of differences in size before the closure between beluga that used the

Marralik-Ungunniavik area and other beluga that migrated through Ungava Bay. One participant described how pre-closure, there was a distinct group of beluga that used the Marralik and Ungunniavik area, but based on current sporadic and limited use of the area by beluga, that this distinct group has been extirpated.

IMPACTS OF BELUGA HARVESTING CLOSURE

Most participants described the closure as not achieving its intended purpose as there has been no increase in beluga numbers observed in the Marralik and Ungunniavik area over the last 33 years, since the closure was put in place.

Nearly all participants described range of complex negative impacts of the closure on beluga harvesting, knowledge of beluga and relationship to beluga:

- Reduced harvesting benefits (i.e. direct impacts of loss of beluga access)
- Disruption to knowledge acquisition about beluga that use the Marralik and Ungunniavik area, due to area avoidance by harvesters
- Increased costs and risks from travelling further for harvests for Kuujjuaq and Kangiqsualujjuaq hunters
- Disruption to intergenerational knowledge transfer as increased travel distance and risks limits opportunities for young people to follow and learn
- Increased beluga harvesting pressure near Tasiujaq from Kangiqsualujjuaq and Kuujjuaq hunters
- Increased tensions between communities due to differential closure impacts
- Poaching by some Kuujjuamiut and Kangiqsualujjuamiut within the closure area, impacting sharing practices and increasing tensions within communities
- Increased use of harvesting practices that have larger impact on beluga (increased rushing and chasing, increased harvesting of only maqtaq due to difficulty transporting the whole carcass over far distances)

Participants described major impacts of the closure on their relationships to and use of Marralik and Ungunniavik estuary areas, as most participants no longer to go to the area due to feeling unwelcome or having no reason to go.

Some participants discussed impacts from the closure on individual and collective Inuit autonomy and self-determination, due to the imposition of the closure on Inuit.

FUTURE MANAGEMENT PREFERENCES

Nearly all participants preferred re-opening closure area. Most participants discussed conditions that should accompany any re-opening, with the most frequently described conditions being 1) more study and ongoing monitoring, and 2) local management and control of harvesting. While some did not specify conditions, others participants also expressed concern that a “free for all” would negatively impact beluga. Management options that some participants suggested to included enhancing beluga harvest skills transfer to younger hunters, restricting noise (i.e. restricting outboard motor use, restricting permanent cabin construction), use of traditional beluga harvest approaches for the area (i.e. harpooning beluga in the rivers instead of chasing in open water) and applying quotas. Some participants discussed how local control and enforcement may curb poaching, and thus a limited legal harvest may not increase the

number of beluga taken over the current illegal harvest. At the same time, a limited legal harvest would be more equitable and may mitigate some of the other described closure impacts.