



the Beluga News

Increasing our knowledge of Churchill's beluga population



Credit: Paul Labun, Oceans North

How Belugas Interact with Whale Watching Boats

By Ruth Teichroeb

A multi-year study of how belugas are affected by whale-watching boats in Western Hudson Bay has found that the whales are interacting with vessels more than in the past and may have become used to the boats over the last decade and a half.

The study, published this earlier this year in *Frontiers in Marine Science*, was the result of research conducted in the Churchill River estuary where whale-watching is a popular tourist attraction. The world's largest population of belugas — an estimated 54,000 whales — congregate each summer in this region to give birth and feed in the Churchill, Nelson and Seal River estuaries.

"It appears as though the belugas have become habituated to the vessels over time," said Kristin Westdal, science director for Oceans North. "They're interacting with vessels more than they did in a previous study done 15 years ago."

Researchers collected data in the summers of 2019, 2020 and 2021 by choosing random groups of belugas to observe for three-minute intervals from whale-watching boats. They recorded the age of

the whales, the distance from vessel, initial behaviour and how the belugas reacted to the presence of the vessel. These results were compared with observations of control groups of whales when boats were not on the water.

"Their interactions suggest they aren't alarmed or concerned by the vessels."

-Kristin Westdal, Science Director for Oceans North

The study team had originally predicted that mothers with calves would avoid the vessels, while the more curious juvenile belugas would be drawn to them. But the research found that when whale-watching vessels were nearby, all age groups of belugas spent an average of 63 percent of their time interacting with them, including moving alongside the boats, gliding under them, rubbing against them and facing the prop wash.

Researchers concluded from this behaviour that belugas have become used to whale-watching vessels as tourism has expanded.

When the previous study was conducted, Kristin lived in Churchill seasonally and operated a beluga whale-watching kayak business.

The study did not assess whether the interactions with vessels have caused any negative effects for belugas, such as the possible impact of vessel noise. Kristin said any behaviour changes are "extremely short-lived" because the interactions are brief – less than five minutes per whale per day. She also said that if the mothers with calves felt threatened or uncomfortable near the boats, they would not have approached the boats.

"Their interactions suggest they aren't alarmed or concerned by the vessels," she said.

A follow-up study is examining more closely how mothers with calves interact with whale-watching vessels. Researchers began gathering data in the summer of 2022 and will complete the study this summer.

"These results are useful for conservation and management planning in the region and the future development of a proposed national marine conservation area," Kristin said.

Ruth Teichroeb is a regular contributor to Oceans North.

IN THIS EDITION:

WORLD HERITAGE SITE?

HUMAN-BELUGA INTERACTION

LAND-BASED HEALING

WORLD HERITAGE SITE? Churchill's west peninsula was considered.

Did you know that Churchill's west peninsula was once considered for designation as a World Heritage Site—and not for the reasons you might expect? In the late 1980s, a study by the United Nations Educational, Scientific and Cultural Organization (UNESCO) concluded the west peninsula of Churchill would be a prime candidate for the international honour. While the peninsula is known for the imposing Prince of Wales Fort, the site's real treasure lies in its vast archaeological resources.

The Beluga News has unearthed a copy of the 150-page report justifying the peninsula as a World Heritage Site. Below are some interesting bits:



"...The Churchill West Peninsula contains a unique concentration of prehistoric and historic sites and artifacts. This location has been attracting human settlement for at least 30 centuries. In addition to evidence of prehistoric and historic Inuit occupation, Dene, Cree and European sites reflecting

historical occupation of the Churchill West Peninsula are also present. Few sites in the world contain such a juxtaposition of different heritage sites so valuable as to their content, concentration, visibility, and

"Few sites in the world contain such a juxtaposition of different heritage sites so valuable as to their content, concentration, visibility, and accessibility."

accessibility. It is this collection of sites uniquely chronicling over 3000 years of human adaption to an arctic/subarctic environment which gives the Churchill West Peninsula World Heritage Site significance.

Together, these sites on Churchill West Peninsula provide an unparalleled opportunity to study and contrast the various environmental adaptations in Canadian arctic cultural succession. Churchill West Peninsula allows the opportunity to perceive the close interrelationship which existed between humans and nature before the arrival of non-native (Indigenous) cultures...This allows historical comparison of arctic/subarctic environmental adaptation and interaction between distinctly separate cultures.

These features combine to make the Churchill West

Peninsula site a representative microcosm of the major historic factors affecting native (Indigenous) peoples of the Canadian arctic/subarctic. These factors include: arctic exploration; whaling; the fur trade; missionary influence; and, finally governmental presence. The response to these opportunities and pressures saw major cultural changes take place in the native (Indigenous) peoples of the Canadian arctic/subarctic. In essence, Canadian arctic/subarctic history is written in the landscape of the Churchill West Peninsula site.

The fact that Churchill West Peninsula became a cultural contact zone is at least partially explained by the fact that it is also an environmental contact zone. It is located in the transitional zone of marine-tundra-boreal forest, hence access to a uniquely diverse set of resources is available and was the most important factor in attracting people to this location. Thus, the Churchill West Peninsula site exhibits "outstanding universal value" from a significant combination of cultural and natural features.

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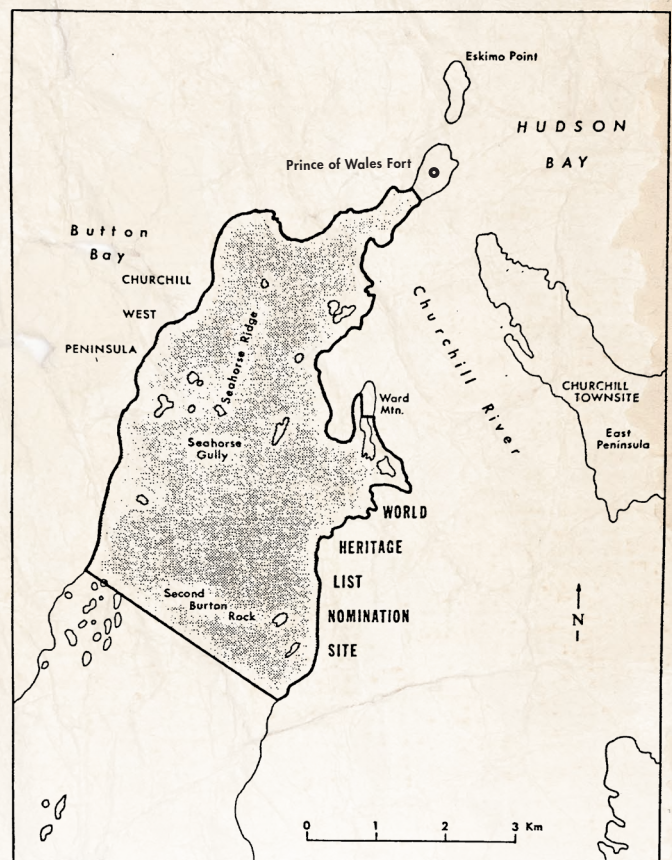


Figure 8. NOMINATION SITE BOUNDARY.



Credit: Linda Larcombe

New Land-based Learning and Healing Project for Youth to Launch in Churchill

By Ruth Teichroeb

An innovative new land-based learning and healing project will help connect youth with Indigenous archaeological and heritage sites along the coastline near Churchill, Manitoba over the next three years.

The project team will create and evaluate a program that will enable youth to study archaeological sites and artifacts left by Inuit, Dene and Cree communities that have thrived in this region for thousands of years.

The project, funded by a grant from the Canadian Institutes of Health Research, will be led by Dr. Linda Larcombe, a University of Manitoba professor and anthropologist, in partnership with Inuit, Dene and Cree communities, Oceans North, Parks Canada, the Manitoba Museum, the Town of Churchill and others. Indigenous partners in the funding application include the Kivalliq Inuit Association, Sayisi Dene First Nation, and Fox Lake Cree Nation.

“This is really a timely project meant to instill a sense of identity among youth and support their mental health,” said Larcombe, who is an associate professor in the departments of Internal Medicine, Community Health Sciences, and Medical Microbiology and Infectious Diseases.

The objective this summer will be to build relationships among the research team and with local youth and Knowledge Keepers in Churchill, visit cultural heritage sites and plan for the next three years.

Indigenous connections to the land have always been crucial to cultural identity, sovereignty and well-being. But these important ties have been disrupted by the impact of colonialism, from residential schools to foster care to the inequities in access to health care. This project will explore how learning about cultural heritage sites, and deepening ties to the land, can foster increased wellness, healing and leadership development among Indigenous youth.

A database is being compiled of the archaeological work that has been done dating back to the 1960s at the more than 50 cultural sites in the Churchill region. This will also include an inventory of the thousands of artifacts that have been collected.

“We want to be able to share this archaeological research with the Inuit, Dene and Cree communities, and find out what they know about how the land has been used,” Larcombe said. “Their voices need to be part of the narrative.”

During the next three years, the project plans to hire youth between the ages of 18 and 30 to work with the research team. This

could include everything from learning how to use mapping software and interpreting drone photos, to doing field work at cultural sites.

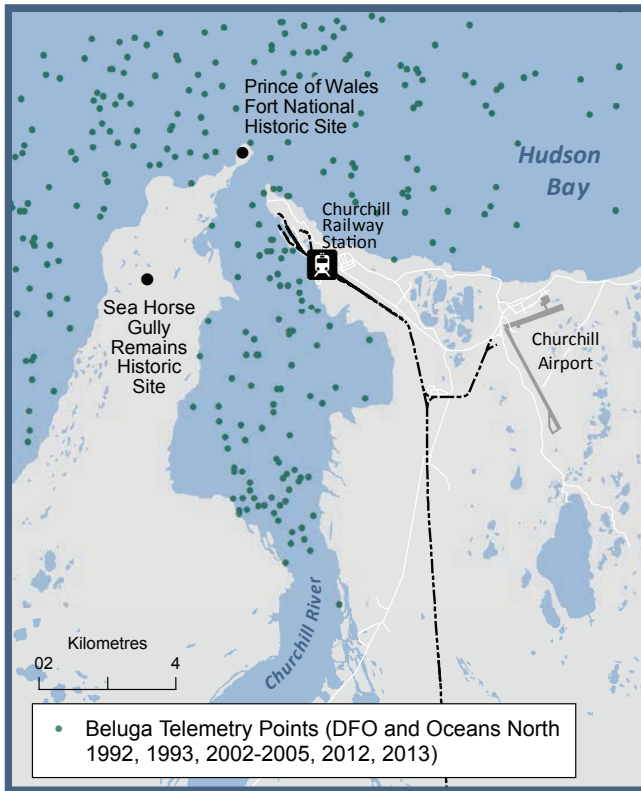
“By learning from elders and the land, youth can be empowered as ‘story catchers,’” said Paul Labun, director of program development with Oceans North. “There have been hunting camps in this region for thousands of years. **Archaeology illuminates that long co-existence of belugas and humans.**”

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-Paul Labun, director of program development, Oceans North



Kono Tattuinee, president of Kivalliq Inuit Association and Linda Larcombe, associate professor at the University of Manitoba, in a tent ring at Hubbard Point. Credit: Linda Larcombe



This map of telemetry points shows belugas living in close proximity to many culturally important sites near Churchill

Continued from Page 2:

World Heritage Site? Churchill's west peninsula was considered.

Another unique feature of the diverse prehistoric and historic resources located on the peninsula is that they are naturally sorted through active **isostatic uplift**. The oldest sites (Pre-Dorset) are found on the highest ground while the most recent historical features are found at the lowest elevation (associated with the present shoreline). This unique process allows the human/land relationships to be clearly followed over thousands of years.

...the archaeological work to date has only "scratched the surface" in relation to the work needed to determine the extent and nature of the various remains on Churchill West Peninsula. Thus, the potential exists for the area to grow yet more valuable from both a scientific and public education view.

* * *

In summary, Churchill West Peninsula represents an unparalleled continuous expression of humanity's adaptation to the arctic/subarctic environment. It is the most unique site of its kind in the world and is a reflection of the long human struggle, mental and physical, to come to terms with the Far North.

The designation of Churchill West Peninsula as a World Heritage Site would see the addition of a "world class" cultural attraction to the tourism inventory of Churchill, successfully complementing the natural attractions of the area. Even if a World Heritage Site Nomination is unsuccessful, the significance of the resources on Churchill West Peninsula are such that some other type of commemoration will almost surely take place.



OCEANS NORTH

Oceans North is a registered charity that supports marine conservation in partnership with Indigenous and coastal communities.

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Beluga Bits

A citizen science project monitoring the Western Hudson Bay population of beluga right here in Churchill!

Using special underwater cameras run by explore.org and Polar Bears International, we can glimpse into the underwater world of these amazing animals. Not only does this provide us with a unique view, the videos and photos collected will help us understand belugas better as well as this amazing ecosystem.

HOW BELUGA BITS WORKS



The Beluga Boat captures a live feed of beluga in the Churchill River estuary



On Explore.org, citizen scientists can take beluga "Snapshots" of the live feed



On Zooniverse, snapshots are categorized by citizen scientists

JOIN US!

Citizen scientists are the backbone of our project and we whale-come help from people like you! If you'd like to contribute, you can register online at: zooniverse.org/projects/stephenresearch/beluga-bits