

Bowhead Whales in Arctic Waters

Name of Student: Danielle Meyok

Grade: 9

Project Name: Bowhead Whales in Arctic Waters

Describe your project:

My project is about Bowhead Whales in Arctic waters. I have included my own primary and secondary research. I collected information on Commercial whaling on Kekerten Island, stories from local elders, aboriginal subsistence bowhead whaling and biological information on Bowhead Whales.

Resources: How did you find your information?

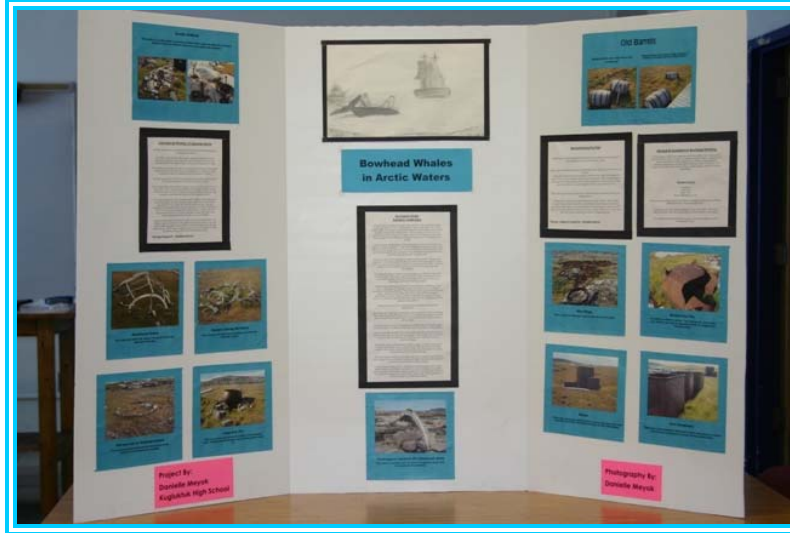
I found my information from my own primary research (speaking with elders; journal writing, field operations and photography on Kekerten Island). I also found secondary research from the internet.

What did you find out as a result of your research?

I have learned the difference between Commercial Whaling (killing whales by the hundreds and thousands) and Aboriginal Subsistence Whaling (harvesting whales appropriate to cultural and nutritional requirements), and I have become more aware of the bowhead whales.

Describe your personal interest in the project and why you chose it.

I chose to research bowhead whales in Arctic Waters because I wanted to study this species and learn more about them. I care for this mammal.



Bowhead Whale **Balaena Mysticetus**

The bowhead whales are large, tough animals. They have the largest mouth and head in the animal kingdom, taking over about 1/3 of their body length. The upper jaw is arched upwards, and paired blowholes are located at the peak of the “crown”. Their blubber can get up to 0.5 metres thick which is about (1 ½ feet). They use the blubber for insulation, food storage and padding for breaking through ice, in the cold arctic waters.

The bowhead whales spend their entire lives near sea ice and do not migrate to warmer waters to calve. The bowhead lives farther north than any other whale. They are found in most Arctic waters between 55° North and the permanent polar ice pack. They use their bow-shaped head to crack through the ice as it migrates north.

During the late winter and spring mating usually occurs. The gestation period is 13-14 months. Most bowhead whales calve during April, May or early June. Bowheads calve at around 3-4 years intervals.

After newborns plunge they must begin swimming north with the migrating herd immediately. The calves are about 14 feet long and weigh up to 2000 pounds when they are born. They grow to about 26 feet during their first year. The bowheads are gray with short wide flippers their flukes are broad equaling one-third of their body length.

The bowhead feeding mechanism is most effective at filtering a “thin soup”. Strategies for feeding in herds are swimming in a V-shape formation to increase efficiency. They feed by swimming with their mouths open, straining zooplankton out of the water with their baleen. Bowheads have very large mouths to maximize the amount of water taken in to hold and capture their food. They feed at all depths, from the surface to the bottom.

Their primary foods are copepods, krill, euphuists and other little invertebrates.

Bowheads swim fairly slowly, generally 2-4 miles per hour. When migrating they make long dives that last up to 16-18 minutes, the longest recorded dive was up to 33 minutes. When surfaced they blow 4-9 blows before diving again.

Bowhead whale are very local and use underwater sounds and songs. They also breach, tail slap and spy-hop which is usually a mating display.

Humans and killer whales are the only major predators of the bowhead. Other deaths are from becoming wrapped in fishing gear line, ice sometimes blocks their movements (causing them to suffocate and starve). Also oil spills are a serious potential danger.

Bowheads were the first species of great whale for which commercial whaling decimated. Since as early as the 1600s this specie has been hunted for a number of years until the 1900s when the animal's number decreased and had to be protected.

The International whaling commission has given protection since 1937. Percentage of the population has recently been increasing (by 3 percent a year) since commercial whaling ceased.

The bowhead whale status indicates the recovery prospects of other great whales which shows that bowheads are increasing at a healthy rate, indicating that stocks of great whales that have been decimated by commercial hunting can recover after it ends, even in the presence of limited aboriginal subsistence whaling.



Commercial Whaling On Kekerten Island

Kekerten Island is now a Territorial Historic Park located 50 kilometres south of Pangirtung, Nunavut.

A Scottish whaler named William Penny discovered this Island for the Europeans and put it on a map. Soon after, this Island was used as a whaling station in the 1840s for about 20 years, until around the 1860s.

The Scottish and Americans came to this region and hunted the Bowhead whales nearly to extinction. The whaling industry in the 1800s was huge business (just like it is nowadays with the petroleum industry).

The main purpose for all of this commercial whaling was mainly to harvest the blubber of the bowhead whales. The blubber made great use in their countries as it was an excellent source of oil. The whalers boiled the blubber in large iron-pots and then turned it into oil. They stored the oil aboard their ships then sent it back to their countries.

The oil was used as a fuel for lights, stoves and heating. It provided large European and American cities and their huge populations.

Of course being in the Arctic, these European whalers made great use of Inuit knowledge. The Inuit around the area would share their extensive knowledge on the whales, the land and the local area. They also provided the Europeans with survival needs, tools and food. They helped with the hunting and worked hours of labor. In return the Inuit would receive some of the basic needs like biscuits, flour, guns, and bullets; these were things that they very much desired.

Artifacts still lay upon this island including, three storehouses (built in the 1850s); huge iron-pots (used for producing whale oil) and old barrels/wire rings (used to ship and store the whale blubber/oil). Smaller items include rusted pulleys, cable wires (for hauling and lifting the whale carcasses), along with bones of the seal and whale.

Aboriginal Subsistence Bowhead Whaling

The bowhead whale is an essential part of the Aboriginal culture from all over the Arctic. Aboriginal people harvest whales in perpetuity at levels appropriate to their cultural and nutritional requirements.

Aboriginal subsistence whaling also ensures low risk of extinction. Aboriginal people hunt this whale for its meat, blubber (muktuk), bones and Baleen.

Subsistent catches.

Canada- 4
Russia-13
USA- 1709

Since 1985-2006 (21 yrs)

280 bowhead whales will be harvested for subsistent whaling in the Bering-Beaufort-Chukchi between 2008 -2012.

10 bowhead whales will be harvested for the years 2008 – 2012 off of West Greenland with an annual review by the Scientific Committee.

On a yearly basis the Chukotka Russian Inuit are also able to hunt 5 bowheads a year.

Remembering the Past

I interviewed my great grandfathers Peter Miyok and Peter Kamingoak about past sightings on the Arctic Bowhead whale.

Miyok says he remembers spotting a Bowhead whale while he was traveling with a friend. “It was very long and big, we watched it dive into the water. We wanted to catch it, but it was too big and heavy for just two people. When we got back to camp we told everyone about it! They even wanted to go and look for it! The water had gotten too rough though for them to go and look for it.”

When Kamingoak went to school he would always see Bowhead whales near Shingle Point. “Shingle Point was a place where Bowhead whales would migrate east to west through. We saw them all the time. Sometimes I’d notice the bowheads far away sprouting water out of their blowholes. They would sprout water over 20 feet high! People used to always go out and hunt them. When they came back with them they’d cook it up and eat it. It tasted like pork.”

Primary research found by: Danielle Meyok