



North Slope Borough Department of Wildlife Management



Sketch by Jean Craighead George

FALL 2010

THE TOWLINE

VOL 2 NO 2

From the Director

The Department of Wildlife Management has been very busy, and I would like to list some of our department successes from this past year: conducted a bowhead whale census (both spring and fall bowhead whale harvest sampling efforts), satellite-tagged bowhead whales, sampled harvested beluga whales, satellite-tagged belugas, satellite and GPS-collared Teshekpuk caribou, banded snow geese, sampled harvested seals and walrus, conducted subsistence harvest surveys, sampled subsistence-caught fish from Elson Lagoon, and responded to polar bear calls.

Along with these projects, we have been honored to represent the North Slope Borough at the International

Whaling Commission, the Inuvialuit and Inupiat Beluga and Polar Bear Commissions, Ice Seal Committee, Nanuq Commission, ABWC, and Alaska Board of Game, to name a few. We also spend many hours reviewing and preparing comments for technical documents such as Environmental Impact Statements required for oil and gas exploration and development and State and Federal subsistence hunting regulations.

In this newsletter, we highlight just a few of our projects, but for more details on current and past projects, please visit our webpage on the NSB website. We welcome any and all comments and suggestions from you, the North Slope Borough residents!

Quyanaq,
Taquulik Hepa



Update on Steller's Eiders (Igniqauqtuq)

During the summer of 2010, 90 Steller's eiders were observed near Barrow by the USFWS. Of these, at least two pairs successfully produced clutches of eggs. One of those nests was destroyed by a predator, but three eggs successfully hatched at the other nest. Thus, the past summer was a very low nesting year.

We are happy to report that

no Steller's eider carcasses were found during the 2010 spring and summer. We would like to thank all of the residents and hunters of the North Slope for their help in this success. The North Slope can be proud of their Inupiaq value of respect for nature and their dedication to Steller's eider conservation. Quyanaq!

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BOWFEST - Bowhead (Agviq) Feeding Study

The Bowhead Whale Feeding Ecology Study (BOWFEST) began in 2007 and investigates the oceanography and bowhead food (prey) distribution just northeast of Barrow in the Beaufort Sea. The study suggests that this

area is quite important to bowheads as they often feed there



COPEPOD

during the fall migration. Subsistence whalers have known this for many years and benefit from this aggregation during the fall whale hunt.

The study uses a variety of methods and requires the collaboration of biologists, engineers, oceanographers, and local hunters, with support from the AEW, Barrow Whaling Captain's Association, and DWM. Aerial surveys, boat surveys by local hunters, and

acoustic monitoring of bowhead whales gives an idea of the distribution of whales in the area. Short-term tags are attached to passing bowheads, providing several hours of diving behavior which is an indicator of feeding activity.

Ocean sampling provides information on the prey or zooplankton found during the same time that the bowheads are in the area. Oceanographic information looks at the currents and temperature of the water which affect the presence of these prey species.

The DWM has been collecting samples of stomach contents of bowhead whales for more than 25 years. Interestingly, in the fall of 2009, stomachs sampled contained mostly krill



KRILL



BOWHEAD STOMACH
FULL OF KRILL

while stomachs in the fall of 2010 contained mostly copepods.

The results from this project will give us a better understanding of why this area is so important to bowhead whales. This information can be used to help minimize potential impacts of oil and gas development, shipping, and other activities in the Beaufort Sea. This study is funded by Minerals Management Service (BOEMRE) and includes researchers from NOAA, NSB, Woods Hole Oceanographic Institute, and UAF.

Bowheads line up for "buffet" near Barrow by Dave Rugh

On September 12th, migrating bowhead whales were observed by an aerial survey team, a part of BOWFEST. These whales were found in a huge concentration of 60 or more just north of Cooper Island. In this photo, you can see a row of four whales feeding along the water surface and one more whale (to the left) with only its rostrum (or "nose") showing. Each of the four whales has its white-tipped chin to the right and rostrum to the left with a huge open mouth in between.

Many of these whales were very close to each other, even touching, as they swam through the water

one behind the other in a structured formation known as "echelon feeding". We suspect they were feeding on krill which is often abundant in the area east of Point



BOWHEADS "ECHELON FEEDING"
JUST NORTHEAST OF BARROW

Barrow. These bowhead whales are on their way to their wintering range in the Bering Sea. [Dave Rugh is a wildlife biologist with National Marine Mammal Lab, NOAA, who has worked with the NSB-DWM on bowhead whales since 1981. Dave retired on September 30, 2010, and we would like to thank him for his many contributions to bowhead biology and management. Photo credit goes to Linda Vate Brattström and Kim Goetz, National Marine Mammal Lab, AFCS, NMFS, NOAA, FFW Permit No. 782-1719-09]

Iñupiaq Matching

Draw a line from the Iñupiaq name to the English name for each Arctic animal.

<i>Agviq</i>	Bearded seal
<i>Aiviq</i>	Bowhead whale
<i>Amaguq</i>	Caribou
<i>Igniquaqtuq</i>	King eider
<i>Nanuq</i>	Polar Bear
<i>Natchiq</i>	Ringed seal
<i>Qiqalik</i>	Snowy Owl
<i>Tuttu</i>	Steller's eider
<i>Ugruk</i>	Walrus
<i>Ukpik</i>	Wolf

FUN FACTS

Did you know that.....

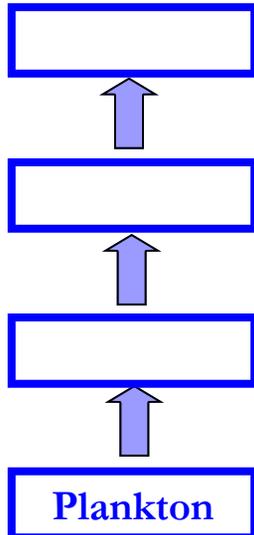
-a bowhead whale can live to be 150 years or older?
-Teshekpuk Lake is the 3rd largest lake in Alaska?
-a beluga whale eats 50 pounds of fish a day on average?
-a Canada Goose gosling poops about 650 times a day?
-a large adult bowhead whale's heart is about 500 pounds?
-the permafrost on the North Slope is 600 to 2000 feet thick?
-a polar bear's skin is black?

Food Chain

These 4 living organisms are part of a food chain:

- Arctic Cod
- Plankton
- Polar Bear
- Ringed Seal

Place them in the correct order at right



The food chain shows how organisms feed for survival. This food chain starts at the bottom with **Plankton** (which can be **producers**). Fill in the rest of the chain with the other three arctic organisms in the correct feeding order. The chain should end with a top **carnivore**!

CAN YOU IDENTIFY THIS MYSTERY PICTURE?



HINT: SEE PAGE 5

GO TO OUR WEBSITE FOR THE ANSWER:
[WWW.NORTH-SLOPE.ORG/DEPARTMENTS/WILDLIFE MANAGEMENT/NEWSLETTERS](http://WWW.NORTH-SLOPE.ORG/DEPARTMENTS/WILDLIFE%20MANAGEMENT/NEWSLETTERS)

Irish — One Smart Polar Bear by Craig George

Irish arrived at the NARL Animal Research Facility (ARF) as a cub with his sibling “Snowflake” on May 11th, 1966. The orphaned cubs had been found on the sea ice and rescued by Pete Sovalik. Irish lived at NARL until it closed in 1980. After being transported to a zoo in Rhode Island, he lived to be 22 years old. During his time at the ARF, scientists learned a lot about polar bear growth and physiology.

Irish was kept in a cage, like some cages seen around NARL and Barrow, and cared for by caretakers. I was lucky to work with him for about a year and a half during the late 1970s.

Besides feeding and cleaning, caretakers also provided “toys” for Irish, such as a 12-foot section of rope, a truck tire, a piece of wooden piling, a bowling ball, and a ten-foot diameter pool. Irish showed his intelligence and ingenuity early on by figuring out how to lift the sliding door that divided his cage. So when cleaning or feeding, caretakers had to slide a large metal rod into the door to prevent his lifting it and perhaps making bear food of the caretakers. After a few more years, Irish figured out how to slide the bar to release the door so the bar had to be pinned and locked in to place.

One of Irish’s favorite games was **tug o’ war**. As the rope was fed into the cage, he’d grab it with his teeth, and the contest would begin between one bear and three people. Pulling against his 1,000-pound mass was futile as he pulled the rope to his chest with one paw

while backing up on his other three legs. Slowly bulldozer-like he would pull you up to the cage bars then he’d quickly let loose of the rope and lunge for you as you flew backwards onto the cement floor.

Witnessing Irish pulling his 16-inch truck tire through 8-inch gaps between his cage bars was guaranteed to instill awe at the power of these animals. This “**tire torture**” was another of his favorite games. As he placed his huge forearms against the bars, he bench pressed the tire –

“Iñupiat legend says that polar bears are really people inside a bear hide”

“**catching the seal.**” The tub was almost four feet deep but water would barely cover his belly. Seated, his nose nearly touched the approximately 7-foot ceiling of the cage. Once the pool was full, he would push the floating wooden block beneath the surface. When Irish released the block, it burst to the surface. This was his cue to pounce on it with ferocious power, grabbing it with arms and teeth. Water would explode from the pool splashing the walls, ceiling and anyone close by. He would continue “catching the seal” until the pool was essentially empty. Then the fun was over until the water truck returned the next week.



IRISH IN HIS CAGE

squeezing it through the bars. I imagined a reluctant ringed seal being pulled through a small breathing hole in the sea ice in the same manner. We caretakers realized that if he ever got a firm hold, one of us could be pulled through the bars like a rag doll.

Irish played a pool game that we regarded as something akin to

Iñupiat legend says that polar bears are really “**people inside a bear hide.**” That is why the hunter must treat the bear as a guest after killing it. From what Irish taught us about how smart polar bears can be, I guess the old-timers had it right.

Polar Bear (Nanuq) Hair Snare Project



BILLY ADAMS AND HARRY BROWER, JR. WITH FENCE

The Polar Bear Hair Snare Project is looking at the importance of bowhead carcass use by polar bears on the North Slope. In order to measure the use of carcasses by polar bears, barbed wire is strung around the carcass, high enough to avoid snaring arctic fox hair. The red-painted barbs “snare” hair as the polar bear steps over the wire to feed on the whale carcass, without injuring the bear.

DNA can be extracted from the hair samples (just like on *CSI*) and will be used to identify individual

bears feeding on the whale carcasses. The hair samples will also be included in and referenced against the current USGS polar bear genetics data base. This information can help document seasonal use cycles by individual



POLAR BEAR HAIR STUCK ON RED-PAINTED BARB OF WIRE

bears, determine relatedness of individual bears, and may be used to estimate the population size of the polar bears in our area.

Snarens will also be set up around harvest “bonepiles” as well as beached whales to allow for comparison of use by polar

bears of these two food sources.

DWM staff will check the snares and remove samples regularly and cameras will be set up to monitor the effectiveness of the snares. The NSB is working in cooperation with the USGS on this 2-year pilot study. Year one will occur in the Barrow area and in year two we hope to expand to the Kaktovik area. For more information on this project, contact Jason Herreman at **852-0350**.



POLAR BEARS “CAUGHT” ON CAMERA AT THE BONEPILE. HOW MANY DO YOU SEE?

Polar Bear (Nanuq) Safety Tips

- * Be aware of your surroundings to allow early detection
- * Reduce attractants around your residence such as food and garbage left in the open
- * Be careful around open water leads or animal carcasses
- * Do not approach polar bears



IF A BEAR IS SIGHTED NEAR TOWN:

Contact the NSB Police Department at **852-0311** or the Department of Wildlife Management at **852-0350**

IF A BEAR APPROACHES:

- * Get into a shelter or in a vehicle and drive away
- * If no shelter, do not run — stand your ground and move slowly away
- * Drop a pack or clothing item as you retreat
- * Gather together in a group, make yourself look bigger
- * Shout and make noise
- * Defend yourself
- * If attacked by a female with cubs, get away and remove yourself as a threat— do not fight back

Wildlife Outreach

The DWM is working hard to get more information out to the public. We are using tools such as this newsletter, our website (see address below), and public flyers. We have been into classrooms to talk about eiders and whales and we are attending local events such as the Health Fairs. Suggestions that you have for classroom visits or presentations are welcomed.

This fall we worked with other entities to encourage local students in science. Four young people from

Point Lay, Dorthy Pikok, Martha Upicksoun, and Kimberly and Julia Neakok, traveled to Mystic, Connecticut, to participate in the **Point Lay-Mystic Aquarium Exchange**. As Dorthy says, it's "a great opportunity to learn more about our belugas and more about science." Kim said she learned how "they make noise from their blow hole, not their mouth."

Two Hopson Middle School students, Shelbi Mathews, and Lynette Ahsoak, and Ilisagvik

college student Ernest Nageak attended the **Sitka Whalefest**. The students listened to whale biologists from around the U.S. present their findings, and participate in educational activities at Mount Edgecumbe and Sitka HS.

We hope these programs lead students to pursue science as a career, possibly working with us in the future! Thanks to the Mayor's Office for providing funding for these opportunities for students on the North Slope.

Hunters in FOCUS: Cooperation between Hunters and Scientists

In this newsletter we would like to thank **James 'Matu' Matumeak** and **Harris Aguvluk** for all of their support and assistance. Matu brings in fish for sampling, and generally keeps us informed as to happenings involving wildlife near Piġniq and other areas near Barrow. He often stops by our offices to have coffee and discuss our current work.

Harris, a hunter from Wainwright, assisted our biologists and subsistence specialists with the investi-

gation and examination of walrus carcasses at the trampling mortality event at the haulout near Icy Cape in September, 2009.

The Department of Wildlife Management acknowledges all of the whaling captains, hunters and elders who assist us and provide information for our studies. This relationship between hunters and scientists enhances our studies, increases our success, and makes our work more rewarding. Quyanaqpak!



We thank the NSB Assembly and Mayor Itta for their continued support. Quyanaqpak!

Go to the NSB website for details on DWM studies!

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