



North Slope Borough Department of Wildlife Management



Sketch by Inuit artist, Graeme George

SPRING 2013

THE TOWLINE

VOL 5 NO 1



From the Director

Spring is here, summer is on its way, and our department is busy preparing for the summer field work: marine mammal beach surveys, fish and fish net surveys, polar bear hair snare, Chukchi Sea fish and zooplankton surveys, and bowhead, seal, walrus, beluga and caribou harvest sampling.

Even though drilling for the summer of 2013 has been postponed, we are busy collecting baseline data that will be useful during and after the future development. We are also addressing the impacts of increased aircraft flying over land and water with a study to help quantify the disturbance of subsistence activities. To assist us in this effort, please call us (907-852-0350) with the description of the aircraft, tail

numbers if possible, and the time and place of the sighting for any helicopters or planes encountered.

We enjoyed hosting the Inupiat Inuvialuit Commission meetings here in Barrow in April. We look forward to continued collaboration with our matching hunters and scientists from across the border in coming up with ideas and solutions, especially to issues involving polar bears, beluga whales, and more.

We continue to pray for east winds for our whalers!

Quyanaq,
Taqulik Hepa



UME Update on Seals, Marine Mammal Surveys

The DWM continues to sample and record information from hunters on seals and other marine mammals. We are happy to report that no new diseased seals have been observed on the North Slope. Seals observed are very fat and healthy. Any unusual sightings can be reported to the DWM at 907-852-0350 or 907-750-5486.

We will continue to conduct Marine Mammal Surveys along the beaches, monitoring for any fur-

ther incidents and providing baseline information before any future increase in offshore development occurs. As of yet no specific cause has been identified, although numerous bacteria and viruses, biotoxins, contaminants known to affect marine mammals, have been ruled out. The next step in the disease investigation is to search for any nutritional and/or hormonal changes in the animals. More updates will follow as information becomes available.

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Teshekpuk Caribou Herd Health Assessment Project

We will be assessing the health of the Teshekpuk Caribou Herd with the Bureau of Land Management on a NSB-DWM and Bureau of Land Management Joint Project. The plan is to sample hunter-harvested caribou for health and body condition starting in the fall of 2013. This could include caribou harvested in National Petroleum Reserve (NPRA).

We will be collecting samples whenever possible here in Barrow. Also, interested hunters will be trained on our sampling methods and will be provided with



COLLECT BLOOD ON FILTER STRIPS



MEASURING BACK FAT

supplies needed for getting their samples to us.

Samples collected will include blood (filter paper strips), lower jaw, lower hind leg, female reproductive tracts, and anything that looks unusual. A sample of muscle (meat) will also be needed to test for Fukushima fallout contamination. Measurement of the back fat depth will be recorded, and overall body condition will be assessed by visual exam. Photographs of the animal will need to be taken, if possible.

Samples will need to be kept frozen and then shipped to us at our cost. If you have caribou for us to sample, or if you are interested in assisting us with the sampling, call Raphaela Stimmelmayer or Brian Person at 907-852-0350.



COMPLETE BAG OF SAMPLES FROM HARVESTED CARIBOU

Getting the Skeletons out of our Closet!

In the 1990's, the DWM had some skeletons cleaned and put together for education. Many of the bowhead skulls and a flipper can be seen around Barrow. The beluga skeleton can be found in



ALAK SCHOOL STUDENT ASSISTANTS

the library at Kali School in Point Lay.

The caribou and ringed seal skeletons were meant to go to Anaktuvuk Pass and Wainwright. After being displayed in the Iñupiat Heritage Center for many years, we finally got them to their homes this spring.

The caribou skeleton is now displayed in the Nunamiut School in Anaktuvuk Pass. The ringed seal skeleton made it to Wainwright



STUDENT ASSISTANTS AT NUNAMIUT SCHOOL

and is now displayed in the library at Alak School. Thanks to all of the high school students who helped us put them back together. We hope the students and community members enjoy these displays for many years to come.

Iñupiaq Matching

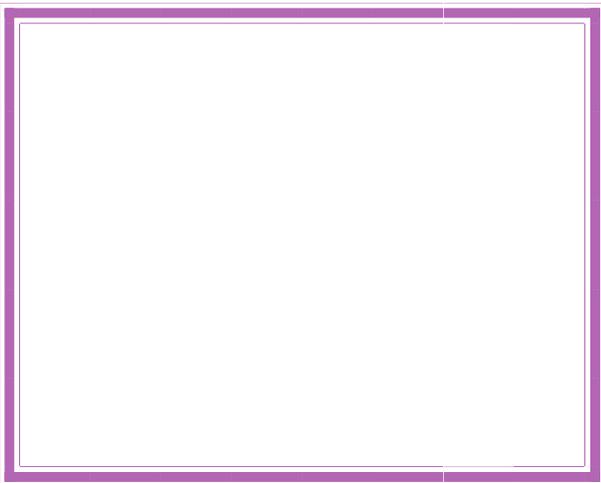
Draw a line from the *Iñupiat* name to the English name for these Arctic Plants.

<i>Aqpik</i>	<i>Alder</i>
<i>Asiat</i>	<i>Blackberry</i>
<i>Kimminñaq</i>	<i>Blueberry</i>
<i>Mapkutitaagruaq</i>	<i>Coltsfoot</i>
<i>Nunaniat</i>	<i>Cottongrass</i>
<i>Paungaq</i>	<i>Labrador Tea</i>
<i>Pikniq</i>	<i>Lingonberry</i>
<i>Quagaq</i>	<i>Mountain Sorrel</i>
<i>Qunuliq</i>	<i>Salmonberry</i>
<i>Sargigruaq</i>	<i>Sourdock</i>
<i>Tilaaqqiq</i>	<i>Stinkweed</i>
<i>Uqpiich</i>	<i>Willow</i>

Note: *Iñupiat* name spellings vary between regions.
More info on plants here: www.north-slope.org/departments/wildlife/Plants_North_Slope.php

Arctic Flowers

What's your favorite Arctic flower?
Draw a picture below.



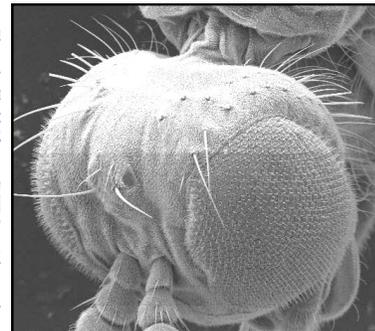
PLANT FACTS

Did you know that...

- ...trees do not grow where there is permafrost close under the ground.
- ...arctic plants have less than 90 days of snow-free ground to grow.
- ...many arctic plants are small and close to the ground to help keep them warm and out of the wind.
- ...many arctic plants are covered with small hairs to help keep the wind from drying them out.
- ...some arctic plants grow and produce seeds in one short summer.
- ...most arctic plants grow over several to many years.
- ...some dwarf shrubs grow on the tundra, like willows and birch.
- ...some arctic plants begin photosynthesis (using energy from the sun) before the snow has melted!

WHAT IS THIS?

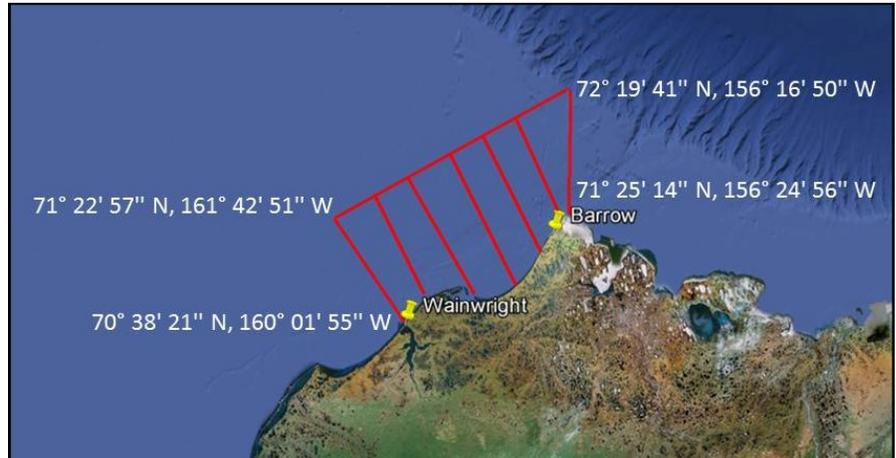
Photo by Todd Stormo (DWM) at Advanced Instrumentation Lab, University of Alaska



Email Leslie.Pierce@north-slope.org with your answer. First person with correct answer will be acknowledged on our website!

SHELFZ—Shelf Habitat and EcoLogy of Fish and Zooplankton

The NSB-DWM, along with NOAA/Alaska Fisheries Science Center, UAF, and University of Washington, is conducting a study to collect baseline data on the habitat, abundance, distribution and species composition of fish and zooplankton in the Chukchi Sea between Barrow and Wainwright. This project is funded by the USFWS through the Coastal Impact Assistance Program.



MAP OF THE STUDY AREA SHOWING TRANSECT LINES FOR SAMPLING



Led by Dr. Leandra de Sousa, this study will compare nearshore (less than 65 feet depths) and offshore (greater than 65 feet depths and out to 55 miles) habitats and their fish and zooplankton communities. This information will help to better understand the available forage for marine mammals, including bowhead and beluga whales, ringed and bearded seals, and others.

The nearshore work will be conducted using the R/V Ukpiik (bottom left), and the offshore work will be conducted from the



F/V Alaska Knight (bottom right). The vessels will be collecting data between August 15th and September 6th, 2013, from about 25 different stations along the planned cruise lines (see map above).

Fish will be collected using beach seine nets, bottom and midwater trawls. Tucker trawls and nets will be used

to sample for zooplankton (including krill). An acoustical transducer (or fish finder) will be used to obtain better information about the density and abundance of fish. Physical oceanographic data will also be collected using a CTD (conductivity, temperature, depth) sensor providing information on salinity as well as temperature at various depths at the sampling locations.

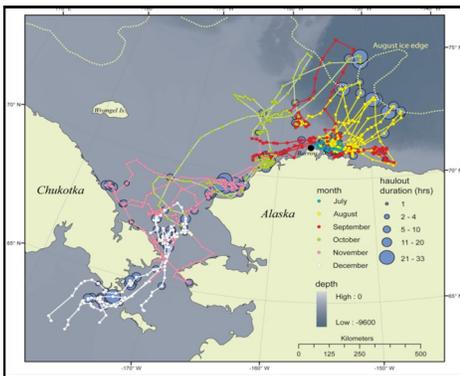
This study should help identify the availability of these prey species and any feeding “hot spots” or areas of high prey density. In turn, the results will be used to help make informed decisions about oil and gas activities. Preliminary results will be distributed to North Slope villages during the cruises and more details will follow later in the fall or winter.



50 FT. UKPIK (ABOVE) AND 143 FT. ALASKA KNIGHT (RIGHT, PHOTO CREDIT: SOTERIO REBMAN)

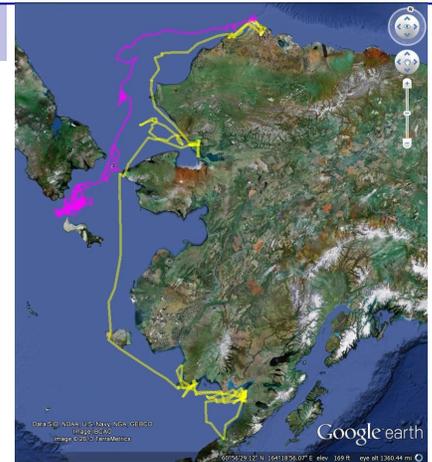
Seal Satellite Tagging Study

Ringed and bearded seals were recently listed by the federal government as threatened due to concerns that climate change will cause the seal populations to decline. Additional information is needed about seals to determine whether the listing is really necessary and to monitor the populations for any signs that they actually are declining.



One of the most important data gaps is about movements of seals. The DWM started a seal satellite tagging project through the NSB/Shell Baseline Studies program, with DWM wildlife biologist Jason Herreman tagging seals in 2011. In total 20 ringed seals were live captured and satellite tags were glued to their head. Those tags fall off when the seals molt their hair in May or June. The map (left) shows the movements of the natchiqs that were tagged in 2011.

In 2012, efforts were made to tag ringed seals but none were caught. Instead, one bearded (pink) and one spotted seal (yellow) were captured and tagged. The map (right)



shows the movements of those two seals. The spotted seal continues to send locations, hopefully until the June molt. We will attempt to capture and tag seals in 2013 to help provide more information about movements, including migration and distribution patterns, that will be useful for making management decisions.

Bowhead Whale Scarring Study

The NSB-DWM has collaborated with whalers from villages on the Beaufort, Chukchi and Bering Seas for several decades to document scars on harvested bowhead whales. When injured, the black skin of the bowhead whale heals pure white leaving a permanent record of past injuries. We have collected many photos of whales with various scars, indicating possible killer whale bites, ship strikes and/or rope entanglements.

Recently, Craig George and others



LARGE SHIP PROPELLER SCARS (1970'S, POINT HOPE)

worked with the UA Marine Advisory Program and ADF&G to analyze scar types and frequencies on bowhead whales using these photos. The analysis shows that about 50% of landed whales over 55 feet long have scars thought to be from rope entanglement. Most bowhead whales over 55 feet long have scars indicating killer whale attacks. We think this is due to larger whales being quite old, allowing for more time to accumulate injuries. And, only about 1%

of the scars indicate injury by ship strike or propellers.

We thank all of the bowhead whaling communities for allowing us to examine their animals. Funding for the analysis was proved by the NSB and the NSB-Shell Baseline Studies Program.

We will continue to monitor scars to document injuries. If you see any unusual scars or injuries, please make a note on your Bowhead Harvest Form and take photographs if at all possible.



KILLER WHALE BITE SCARS (2003, BARROW)



ROPE ENTANGLEMENT SCARS (2003, BARROW)



**North Slope Borough
Department of Wildlife Management**

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 Deputy Director: Harry Brower, Jr.



**ECRWSS
BOXHOLDER**

CHECK OUT OUR NSB
DWM WEBSITE!

*We thank the NSB Assembly and Mayor Brower
for their continued support. Qiyanaqpak!*

BECOME AN NSB-DWM
FAN ON FACEBOOK!

Migratory Bird Fairs in Barrow and Atqasuk this Spring!

Migratory Bird Fairs were held in Barrow on March 28th and in Atqasuk on April 18th. These fairs were sponsored by the Barrow Migratory Bird Task Force, which includes ICAS, NSB, NVB and UIC. The USFWS also helped to sponsor the fair in Barrow. Fair attendees enjoyed goose soup (and fish soup in Atqasuk!) and donuts. Information was provided on migratory birds, and hunting licenses were available for purchase. In Barrow, Eider Journey students gave presentations on their summer work. There were kids' activities, face painting, and fun for all! Check out some of the qiyaliks or king eiders in Atqasuk (top right) and Barrow (bottom right).



ARCTIC SCIENCE RESEARCH CAMP

Sign up for the Arctic Science Research Camp through [Ilisagvik College!](#) Students grades 9-12 will be following our biologists and subsistence specialists and learning about NSB-DWM's research on the North Slope. Camp dates are July 21-27, 2013. Sign up deadline is [June 17th!](#)

Hunters in FOCUS: Cooperation between Hunters and Scientists



Thanks to all of the hunters who have allowed NSB-DWM to sample their harvested seals, polar bears, whales, caribou and fish. Necropsies conducted on seals and bears show healthy, fat animals. And, thanks goes to the hunters and community of Point Lay for helping with the transport of the polar bear cub, Kali (left), to Barrow and on to the Alaska Zoo in Anchorage. Kali was transferred to the Buffalo Zoo in Buffalo, New York, in mid-May.