North Slope Borough Department of Wildlife Management

FALL 2014

The Towline

VOL 6 NO 2

From the Director

Paġlagivsi North Slope residents! Thanks to all of the successful whalers and hunters who provide food for our community Thanksgiving and Christmas feasts, as well as what we enjoy year round!

The Department of Wildlife Management has been busy with issues related to caribou, polar bear, fish, and more, which you can read about here. We are privileged to carry out this work on behalf of our North Slope communities to ensure that subsistence resources are sustainable and subsistence hunting continues.

Our staff represent the NSB in critical discussions, dealing with bowhead and beluga whales, ice seals, migratory birds and more. We work with co-management organizations to provide support for our subsistence hunters. More information on many of these topics can be found on the NSB webpages (web address on back).

Please continue to contact us with your questions or concerns regarding subsistence resources. We rely on the information that we get from our hunters to do our work. Please continue to pass on your valuable knowledge to our young hunters, especially your respect for nature and wildlife. Qiksiksrautiqaġniq!

Happy Holidays,
Taqulik Hepa

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Point Lay Walrus Haulout in Fall of 2014

During mid-September, about 35,000 to 45,000 walruses hauled out on a barrier island near Point Lay. In mid-to-late September about 50 walrus carcasses were observed by the USGS aerial survey. The carcasses were likely a result of a stampede event caused by a polar or brown bear that had been observed on the island by Point Lay residents.

Raphaela Stimmelmayr, assisted by Isaac Leavitt of Barrow, traveled to Point Lay. The NSB-DWM, in collaboration with the USFWS, ADFG, and the community of Point Lay, organized a field trip in early October to assess carcasses, conduct necropsies and collect samples. The group traveled through the lagoon to the haul out site, about 5-6 miles north of the old village, examined 34 carcasses, and necropsied five fresher carcasses.

Leo Ferreira & Warren Harding Lampe of Point Lay assist Raphaela Stimmelmayr with necropsy

Cause of death likely was trampling, with no skin lesions (as seen during the 2011 UME) observed. Preliminary results will be presented at the Eskimo Walrus Commission meeting in December, with a report to follow.

Caribou Populations Decline

Caribou on the North Slope have been studied since the early 1970's. The NSB-DWM has worked with the ADFG and the BLM in caribou collaring efforts, aerial surveys and photocensuses. Caribou population fluctuations are natural; however, the current trends have managers worried.

The Teshekpuk Caribou Herd (TCH) is declining. In 2013, the estimate of about 40,000 animals was down from 69,000 in 2008. This decline is due to a combination of things, including few calves being born and poor calf survival starting in the late 1990's. More recently, there have been higher death rates for adults. The reasons for poor survival could be related to poor summer and winter nutrition, freezing rain covering the tundra in the fall and winter, and higher levels of predation in winter.

The Western Arctic Herd (WAH) is also in decline, with a 2013 estimate of 235,000, down from 490,000 in 2003. The decline in this herd shows trends similar to the Teshekpuk Herd, with lower calf survival and lower adult female survival. Similar weather patterns are affecting their summer and winter nutrition, and predator numbers seem to be high. A poorer nutritional state leads to greater vulnerability to predators as well.

The TCH and WAH photocensus data from 2014 will be very important in understanding this population trend. If declines continue, harvest management efforts may need to be considered. The NSB-DWM is making every effort to include North Slope hunters in this discussion.

Meetings in North Slope communities have been or are being held to discuss this problem and to come up with community solutions. If the trend continues, harvest can make the decline even more severe. Some solutions may include changes in hunting seasons, hunting fewer females, or community harvest quotas. North Slope hunters are encouraged to give us their ideas about how to keep caribou numbers from declining further.

The good news is that the Central Arctic Herd (about 67,000) is stable and the Porcupine Herd (about 169,000) is increasing. The Teshekpuk Caribou Health Assessment being conducted by the NSB-DWM and BLM is ongoing and, thus far, the majority of hunter killed animals that we have examined were healthy. Hunters are encouraged to contact the Department if they want to participate in this assessment. If you have any questions or concerns, please contact Brian Person at 852-0350 or email him at brian.person@north-slope.org.

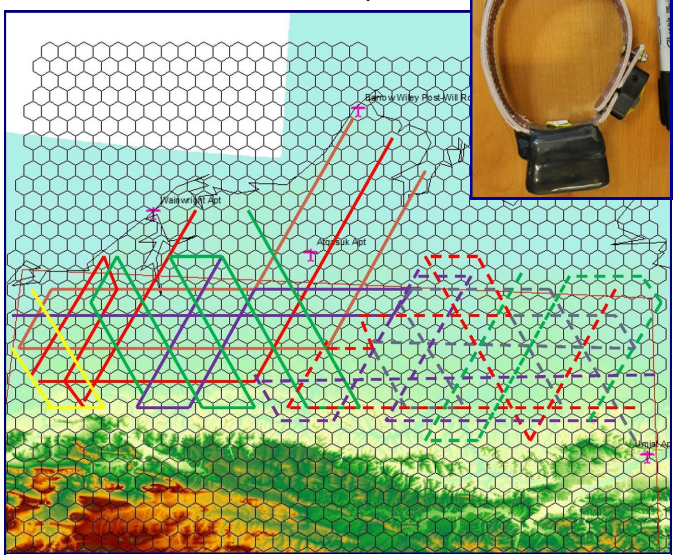
Wolverines on the North Slope

Wolverine are an important subsistence species on the North Slope. We are studying wolverines to better understand important habitat, range, and denning sites. We will inform communities and industry of our findings to help provide mitigation solutions for maintaining continued hunting access to wolverines during future development activities.

In November 2014, ADF&G biologists will attempt to locate wolverines during their routine caribou and moose surveys. If located, five wolverines found in the study area will be fitted with GPS satellite collars. In April 2015, aerial surveys will be focused south of Atqasuk to the foothills of the Brooks Range, and from Umiat to the Utukok River (see flight tracks on map). During these surveys, we will record locations of wolverines and wolverine tracks. Satellite collaring and aerial surveys will help identify important wolverine habitat.

We will communicate with village liaisons about local subsistence activity before our survey flights in April. Any encounters with subsistence activities will halt our survey in that area. If you have questions or concerns, please contact Ryan Klimstra at 852-0350 or email him at ryan.klimstra@north-slope.org.

This project is funded by the North Slope Borough Department of Wildlife Management and the Wildlife Conservation Society.



MAP SHOWING AERIAL SURVEY TRANSECTS.
INSET PHOTO: GPS SATELLITE COLLAR.

Kid's Page

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Iñupiaq Matching

Draw a line from the *Iñupiaq* name to the English name for these Sky Terms.

Anaqaksraq	***Big Dipper***
Aulasuiḷaq	***Darkness***
Ayauppiak	***Day***
Kiguġuya	***Daybreak***
Naaġuq	***Evening***
Qagguvik	***Full Moon***
Qayuuttaq	***Moon***
Siqiñiq	***Morning***
Taaġniq	***Night***
Tatqiq	***Northern Lights***
Unnuaq	***North Star***
Uvlaaq	***Star***
Uvluġiaq	***Sun***
Uvluq	***Sundogs***

Note: *Iñupiaq* name spellings vary between regions.

FUN FACTS

Did you know that?

*… bowhead whales can live more than "**two human lifetimes**"!*

*…bowhead whales can migrate "**under the sea ice**"!*

*…not all bowhead whales migrate to Canadian waters in the summer, "**some stay farther south**" in the Bering Sea, or along the northern Alaskan and Russian coasts.*

*…bowhead whales can "**hear sounds of people on the ice**" and other noises in the ocean.*

*…"**bowheads can smell"** smoke and odors in the air.*

These facts, told to biologists by Iñupiat whalers, have been confirmed with science!

Subsistence ACTIVITIES

DECEMBER

Siqiñġiḷaq or ***Umiraġvik***

Trapping season for fox, wolf, wolverine
Seal and Nanuk hunting
Traditional games and feasts
Time to clean ice cellars for new year

JANUARY

Siqiññaatchiaq or ***Unigmiġvik***

Trapping continues
Seal and Nanuk hunting
Build and repair skin boats

FEBRUARY

Siqiññaasugruk or **Irraasugruk**

Trapping continues
Seal and Nanuk hunting
Puvitquqtaq—skins being bleached and dried

MARCH

Paniqsiqsiivik or ***Amiqtuġvik***

Trapping continues
Seal and Nanuk hunting
New skins sewed and put on boat frames
Nanuk cubs emerge from dens

APRIL

Qargiḷiġvik or ***Umiaqqavik*** or ***Nutaqsivik***

Whaling season begins
Caribou hunting inland
Birth of Natchiq young

MAY

Suvluġvik or ***Nuġġiaqtuġvik***

Whaling continues
Geese and ptarmigan hunting inland
Duck hunting at sea ice leads
Ice break up on rivers
Birth of Ugruk young

Check our website for the correct answers! Go to www.north-slope.org/departments/wildlife-management/dwm_newsletters

The NSB-Shell Baseline Studies Program Highlight

Ringed Seal Tagging Program

The Ringed Seal Tagging Program has been ongoing since 2011 and is helping improve our knowledge of important habitat for seals by providing travel locations, dive data, and feeding activity. This baseline information will help us to provide better mitigation solutions regarding human activities in the Beaufort and Chukchi Seas in the future.

The 2014 seal tagging season went very well with three ringed seals and 10 spotted seals tagged. With the help of seal hunters Joe Skin, Bobby Sarren, Isaac Leavitt, and Billy Adams, we located better places to set nets and improved our methods for capturing seals.

Top: Joe Skin and Billy Adams holding seal.
Bottom: Andy VonDuyke untangling seal.

So, what do we know so far? Travel routes of the tagged seals can be seen in the maps below, as compared with seals tagged in 2011-12. Tag dive data shows that most dives are about 250 feet deep or less, with the deepest dives (1500ft) occurring in the fall. Most dives lasted 7 minutes or less, although some dives in late summer were 22 minutes or longer. Male seals' dives tended to last longer than females in the fall.

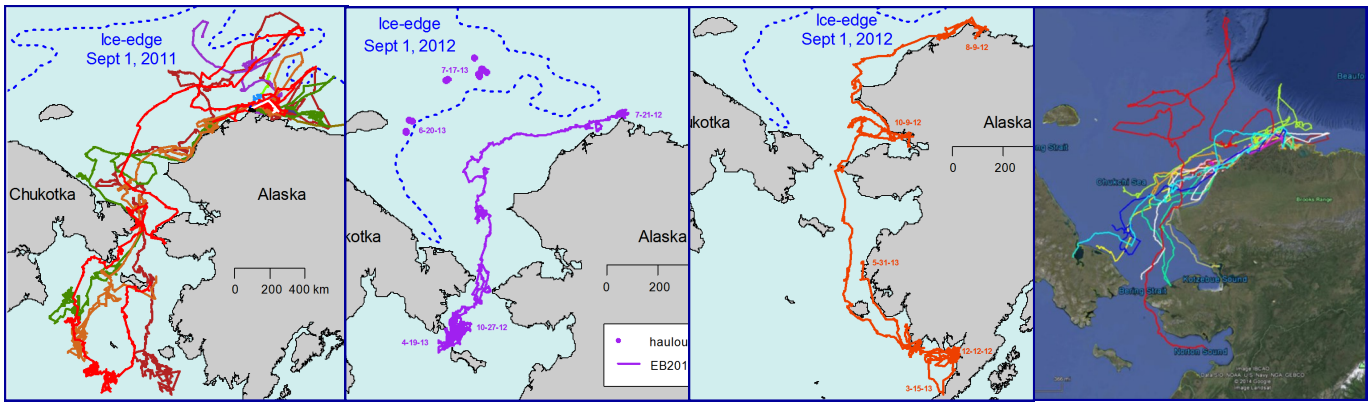
There seem to be two general dive depths, possibly for two different purposes. There are dives of about 6-7 feet which seem to occur during travel, and deeper dives occurring during feeding activity.

Bobby Sarren and Jordan Kippi
setting the net to capture seals in 2013.

Haul-out behavior varies with season, with the lowest percentage of time spent and shortest duration of haul outs during September and October. The longest haul outs occurred during November and December.

Our preliminary findings indicate that: 1) some ringed seals winter in the Bering Sea and some in the Chukchi Sea; 2) spotted seals tend to follow the coastline, with several key stopover locations as they travel south along the west coast; 3) ringed seals use pack ice above the continental shelf and Arctic basin to haul out while feeding; 4) dive depth and timing likely relate to prey location; and 5) daily timing of haul outs change seasonally.

We will continue tagging seals for the next few years in order to provide a large enough sample size to help us confirm the findings above as well as answer other questions. This project is funded by the NSB/Shell Baseline Studies Program and is allowed under the NMFS permit #15324. Please contact Andy VonDuyke if you have questions at 852-0350.



Satellite Tag Maps (left to right): Ringed Seals (July 2011-June 2012). Bearded Seal (July 2012-July2013). Spotted Seal (Aug 2012-May 2013). Ringed seals (red and lime green lines) and Spotted Seals (July-Oct 2014 and still transmitting).

Chukchi Polar Bear U.S.-Russia Bilateral Agreement

Nanuq near Barrow

A treaty between the federal governments of the U.S. and Russia was signed in 2000 in order to coordinate management of the shared Chukchi Sea polar bear population, which are hunted by the North Slope communities of Point Lay and Point Hope. Conservation of polar bears and the protection of subsistence use were the main goals of this treaty, plus it provides legal subsistence hunting for Native people of Chukotka, which has not been allowed since 1956.

After a Congressional amendment to the Marine Mammal Protection Act, implementation of this treaty began in 2007 with the formation of a U.S.-Russia Commission comprised of a representative from the US Fish and Wildlife Service, the Alaska Nanuuq Commission, the Russian government and the Chukotka aboriginal people. The inaugural meeting was held in Moscow, Russia, in 2009.

A scientific working group (SWG) was also formed to recommend sustainable harvest levels to the Commission for the Chukchi Sea polar bear population. Even though the IUCN Polar Bear Specialist Group considers the data to be insufficient for a reliable estimate of population size or trend for this population, the SWG recommended a total harvest for the two countries of 58 polar bears per year, of which only 19 could be females. The quota would be split evenly between Alaskan and Chukotkan Native people, at 29 bears per country. This harvest level was based on a rough estimate of 2000 bears in the population, which was primarily based on how many female bears were thought to den on Wrangel Island in Russia.

The Alaskan share of the quota (29 polar bears per year) is lower than the average of 37 bears harvested each year between 2004 and 2008. The USFWS will be working with the Alaska Nanuuq Commission to determine how best to implement this harvest quota.

The North Slope Borough is concerned about the implementation of a polar bear quota for the Chukchi Sea villages when the information on population size is lacking. Additionally, other data from hunter observations and the USFWS scientists, show that Chukchi Sea bears are in good body condition and producing lots of young. We are working with the ANC, USFWS, ADFG and others to collect data for making good decisions about the need for or size of a quota. For more information, contact Mike Pederson, Andy VonDuyke, or Robert Suydam at 907-852-0350.

Water Mold found on Aanaakłiq

Saprolegnia is a water mold that was found on *Aanaakłiq* by Nuiqsut fishermen during the fall of 2013 and 2014. This water mold is common in freshwater around the world and grows on live and dead matter (fish eggs, insects, etc.). It can infect fish through wounds on their skin.

Saprolegnia can cause a disease in fish called Saprolegniosis. Normally, fish have a healthy mucous coating on their skin as a natural barrier. Injuries to fish or stress can reduce this mucous coating which can lead to infection. Some causes of stress could be crowding, pollution, changes in environment (as in water temperature, salinity, water flow), and reproduction (especially spawning males). The water mold can penetrate the skin of the injured or stressed fish, causing fluid loss and can lead to death. Symptoms of this disease are whitish, moldy patches on the body (see picture below).

Water mold on *Aanaakłiq* (broad whitefish) in 2013

The water mold was found on fish caught from the Colville main channel and the Niġliq channel. Saprolegniosis has not been reported from Nuiqsut before, but one case was reported on the Inaru River in 1980. Saprolegniosis has been reported in no other species of fish to date on the North Slope; however, it has been found on salmonid species (salmon, trout, char, whitefish, and grayling) in other parts of Alaska and Canada.

The cause of these recent cases of Saprolegniosis is not yet known. Baseline data will continue to be collected and a NSB-DWM Task Force has been formed to develop a monitoring plan with Nuiqsut.

According to the State of Alaska, *Saprolegnia* will not harm humans. However, NSB-DWM recommends maintaining your traditional and customary practices when handling unusual fish.

For more information, or to report a sighting or catch, please call NSB-DWM at 907-852-0350.

North Slope Borough
Department of Wildlife Management

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

BECOME AN NSB-DWM FACEBOOK FAN!

Hunters in Focus—Aŋuniaqtivut

Our work is possible because of the input and assistance from the hunters. We would like to thank those who have helped us this summer. Jimmy Nukapigak, Price Brower, Jacob Negovanna and Mike Aamodt of Barrow provide us with their fish catch data and assist with the release of yellow-billed loons from nets. Warren Harding Lampe, Leo Ferreira and Marie Tracey of Point Lay were a big help with the walrus surveys and sampling during the haul outs. Joe Skin, Isaac Leavitt and Bobby Sarren of Barrow assisted with seal tagging, increasing our number of successfully tagged animals. And, thanks to Bennie Akootchook for keeping our bowhead harvest team informed about whaling.

Eli Nukapigak and Edward Nukapigak, Jr., alerted us to the water mold on fish in Nuiqsut and Sam Kunaknana, Jonah Nukapigak, Tommy Nukapigak, Robert Lampe, Martha Itta and Glen Taalak assisted with the collection of samples to be tested.

Many people helped with putting out drifters and tide gauges near our communities including: Hugh 'Boo Boo' Olemaun of Barrow; Leo Kayotuk, George Kaleak, Jr., and Fred Tagarook of Kaktovik; John Hopson, Jr., Billy Sielak, and Harris Aguvluk of Wainwright; Guy Omnik and John Attungana of Point Hope; and Willard Neakok and Warren Harding Lampe of Point Lay.

Finally, thanks to those who have attended our community caribou hunter meetings. Many people were invaluable in helping to organize these meetings in Barrow, Wainwright, Point Lay, Anaktuvuk Pass and upcoming in Point Hope.

There are many more hunters who have called with information, concerns and questions, and we appreciate the time you take out of your day to keep us informed of wildlife issues. Please keep calling us and sharing your information! Happy hunting! Aŋuniaġniq!

Student Interns and Graduate Students

The NSB-DWM continues to work with students to promote science education and to mentor students interested in science or a related field. We want to thank our college student interns and technicians who worked with us this past summer including Ianjon Brower, Alicia Itta Flores, Lynette Hepa, Maggie Sikvayugak, and Yosty Storms. Our best of luck to your continued studies and the career of your choice!

NICOLE

We would also like to extend our congratulations to a former college intern, Nicole Kanayurak. Nicole worked with us for two summers, and again this past year after graduating with her BA from Dartmouth. This spring she embarks on her graduate studies in the Masters of Marine Affairs program at the University of Washington. We have great hopes for these students and encourage more students to consider a career in wildlife!

MAGGIE, YOSTY, IANJON, CYD HANNS, ALICIA, LYNETTE AND RAPHAELA STIMMELMAYR