



# North Slope Borough Department of Wildlife Management



Sketch by artist Craig Head-George



FALL 2013

## THE TOWLINE

VOL 5 NO 2

### *From the Director*

The 2011 bowhead whale census was the most successful ever conducted with full visual, acoustic and aerial coverage of the bowhead migration. After two years of intensive analysis, the new 2011 abundance estimate for the Bering-Chukchi-Beaufort Seas stock of bowhead whales was presented at IWC 2013 in Korea. The estimate is **16,892** with a “margin of error” between 15,704 to 18,928 whales. This means the stock continues to grow at about 3.7% annually, which indicates that the health status of this population is very good.

Census coordinators, Craig George and Robert Suydam, and all of us at NSB-DWM thank the whaling community, AEWC, NSB, NOAA, BP and other entities who have supported our research over the years. Maintaining the bowhead quota

is number one on our list, and this new estimate will help considerably with future quota renewals.

Although the spring whaling season was poor due to wind and ice conditions, 14 bowhead whales were landed in Barrow, Point Hope, Gambell and Savoonga. Also, congratulations goes out to all of the whalers on a great fall whaling season, with 30 bowhead whales landed so far in Barrow, Kaktovik, Nuiqsut and Wainwright!

Thanks to all of the hunters for sharing their successful harvests, making our upcoming holidays a festive celebration!

Quyanaq,  
Taqluk Hepa



### *Marine Mammal Health Program*

This summer Raphaela Stimmelmayer, staff and interns continued to work successfully with hunters in Barrow to examine subsistence harvested ice seals and walrus, and hunter-concern animals. Overall, bearded and ringed seals were in good condition, very healthy, and showed no signs of the seal sickness observed in 2011. Subsistence harvested animals were aged, sexed, measured, and organs and blood were sampled.

Due to late break up, beach surveys for stranded marine mammals

started much later than in the past. As in 2012, there were a low number of stranded carcasses observed for ice seals and walrus.

Our ongoing examinations and beach surveys are part of the Marine Mammal Health Program to establish baseline information about our important subsistence species. A summary of our ongoing health investigations and preliminary results will be presented to the Ice Seal Committee, and at the NSB Fish and Game Management Committee meeting this winter.

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## *Fish, Caribou, Snow Geese and Lemmings*

**FISH** Todd Sformo has been surveying fish species in North Salt Lagoon and Elson Lagoon using a fyke net for the last three summers. This survey will help us better understand the number of species present, size and age distribution, health status of the fish, and the water temperature and salinity.

For 2013, over 5,000 fish were caught and released with 14 species identified, mostly least cisco and fourhorn sculpin. Few parasites were observed, and fish appear to be healthy, which is comparable to previous years.



TODD AND LYNETTE MEASURING FISH

**CARIBOU** Brian Person worked with Lincoln Parrett of ADF&G and deployed 41 GPS, satellite, and conventional collars on Teshekpuk caribou to monitor the herds' distribution and health. Near Inigok in late June, caribou were captured with a hand-held net gun. Currently, the herd is distributed in 3 groups: one near Wainwright, one near Fish/Judy Creeks, and one near Anaktuvuk Pass. It is likely they will maintain this distribution throughout the winter.

**SNOW GEESE** Brian and others continue to monitor the Snow Goose colony on the Ikpikpuk Delta. About 60% of these nests failed due to brown bear predation. In late July 1600 flightless geese were captured and fitted with metal leg bands to determine their survival rate and distribution. This is the largest, rapidly growing colony in western North America.

**LEMMINGS** Ryan Klimstra and the USFWS continued a lemming monitoring study near Barrow this summer.



YOSTY AND RYAN TAG A LEMMING

Captured lemmings are injected with tags that are used for "mark-recapture" population estimates. There were 41 lemming captures; 16 lemmings were recaptures. These low lemming numbers agree with the low lemming sightings by local residents and the biologists. We hope to continue this study long-term to better understand fluctuations in lemming numbers.

## *Satellite Tracking of Natchiq*

Andy Von Duyke, along with Billy Adams, Ryan Klimstra, Bobby Sarren, Jordan Kippi, and Isaac Leavitt, captured and tagged three ringed seals near Barrow. Two adult female seals were caught in July and fitted with satellite data recorders (SDRs). The first two tags de-

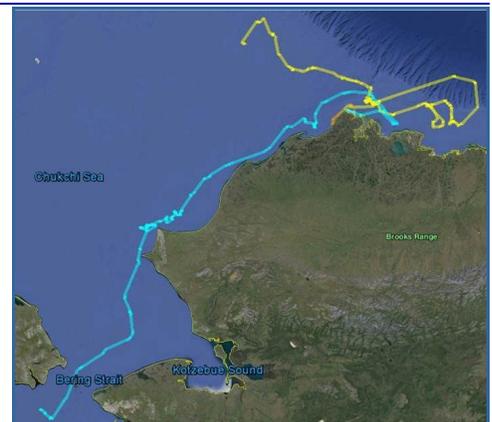
ployed failed after a short time; despite the short life, they did provide good data. After fixing a software defect in the SDRs, poor weather hampered capture efforts.

On September 4<sup>th</sup> Ellis Patkotak, responding to a community poster requesting assistance, brought in a female ringed seal which had become entangled in his subsistence gill net. The seal was fitted with an SDR and released near the boat ramp at *Niksiuraq*. This tag transmitted until October 23<sup>rd</sup>.

Future efforts for this study include working out new methods for safely capturing seals in icy conditions. Catching seals in late winter/early spring will provide information on the presence of a resident population, which is of



ANDY AND BILLY TAGGING NATCHIQ



TRACKS OF 2013 TAGGED RINGED SEALS

particular importance to hunters.

Funded by the NSB-Shell Baseline Studies Program since 2011, data have been collected for a total of 39 seals. A major effort this winter will be to analyze all data, including locations, dive depth and water temperature, and generate a report on important feeding areas for ringed seals in the northeastern Chukchi and the western Beaufort Seas.

## Iñupiaq Matching

Draw a line from the *Iñupiat* name to the English name for these Types of SNOW!

<i>Agniqsuq</i>	<i>Crystallized, bottom layer</i>
<i>Aniquyyaq</i>	<i>Dry Snow Blizzard</i>
<i>Aniu</i>	<i>Fresh Powder Snow</i>
<i>Apun</i>	<i>Hard, icy snow</i>
<i>Auktuq</i>	<i>Hard-packed Snow</i>
<i>Irriqutit</i>	<i>Long Snow Drift</i>
<i>Masallak</i>	<i>Low Blowing Snow</i>
<i>Natigvik</i>	<i>Melting Snow</i>
<i>Nutagaq</i>	<i>Snow Cover</i>
<i>Piqsiqsuq</i>	<i>Snow Flake</i>
<i>Pukak</i>	<i>Snow House</i>
<i>Qannik</i>	<i>Snow/Ice Crystals in Air</i>
<i>Qimuagruk</i>	<i>Sticky, Snowball Snow</i>
<i>Silliq</i>	<i>Wet Snow Blizzard</i>

Note: *Iñupiat* name spellings vary between regions.  
Reference: *Apun, The Arctic Snow* by Matthew Sturm

## SNOW FACTS

Did you know that...

- ... snowflakes form by water freezing to dust particles in clouds.
- ... the ice crystals in the clouds grow and fall when they get large and heavy enough.
- ... snowflakes start out as 6-sided shapes, or hexagonals.
- ... after thawing and freezing, snowflakes change shape and metamorphose into “hoar” crystals.
- ... snow on lake or sea ice protects the ice from melting.
- ... snow protects tundra plants from getting too cold in the winter.
- ... snow provides insulation for animals living under the snow, like lemmings and insects.
- ... caribou have large, wide hooves to help them travel on snow.

## SNOW FLAKES

Go outside and find a snowflake!  
Draw a picture of your snowflake below.  
How many sides does it have?



### CAN YOU ANSWER THIS QUESTION?

What is the *Iñupiaq* name for the snow knives that are used to make snow shelters?

Email [Leslie.Pierce@north-slope.org](mailto:Leslie.Pierce@north-slope.org) with your answer. First person with correct answer will be acknowledged on our website!

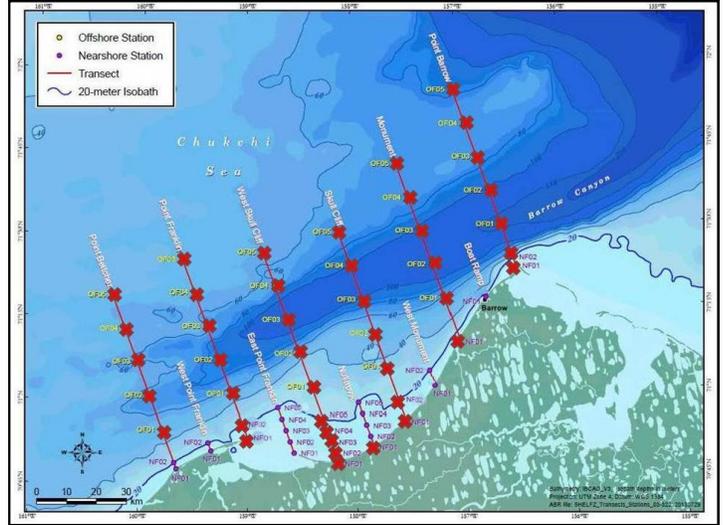
## SHELFZ—Shelf Habitat and EcoLogY of Fish and Zooplankton

Leandra de Sousa, along with NOAA, UAF, and University of Washington, funded by CIAP, collected baseline data on the habitat, abundance, distribution and species composition of fish and zooplankton in the Chukchi Sea between Barrow and Wainwright from August 17<sup>th</sup> to September 6<sup>th</sup> at 61 different stations.

Near shore work included beach seining while offshore work utilized bottom and mid-water trawls for fish and for zooplankton (like krill). Salinity and temperature were collected using a CTD (conductivity, temperature, depth) sensor.

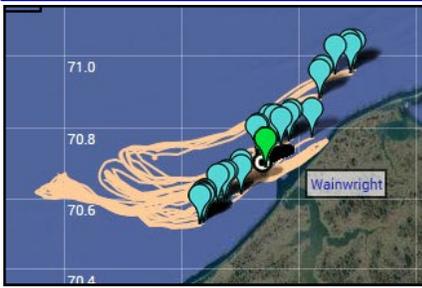
The cruise went well and preliminary results were distributed to North Slope communities during the cruises. A more detailed report will follow later in 2014 after data are analyzed.

This information will help us to better understand the available forage for marine mammals. We hope to identify the availability of prey spe-



MAP OF THE STUDY AREA SHOWING SAMPLING LOCATIONS

cies and any feeding “hot spots” of high prey density. The results will be used to help make informed decisions regarding offshore-related activities.

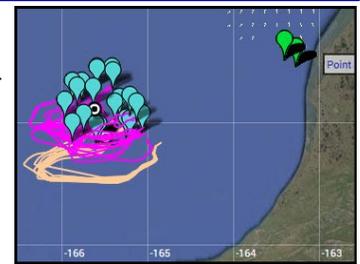


WAINWRIGHT DRIFTER TRACKS AS OF AUGUST 30 (ABOVE) AND BY OCTOBER 22 (BELOW)

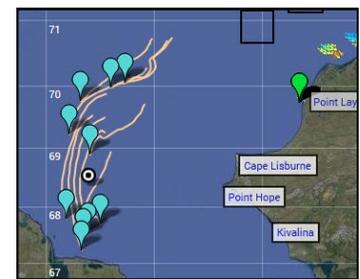
### Surface Ocean Drifters

Surface ocean drifters were deployed off of Wainwright and Barrow in 2012 to help us better understand the near shore surface currents. The project, funded by the NSB/Shell Baseline Studies Program, continued this summer of 2013 with ocean drifters deployed off of Point Lay and Wainwright.

Billy Adams, Robert Suydam, Willard Neakok and Warren Lampe deployed 13 drogue drifters and 3 surface drifters near Point Lay on August 17<sup>th</sup>, 4 miles out and 8 miles out. Billy Adams, Harris Aguvluk and Billy Sielak deployed 26 drogue drifters and 3 surface drifters 8 miles out of Wainwright on August 23<sup>rd</sup>. The maps tell the story. The green balloons are deployment sites, and the turquoise balloons are drifter locations.



POINT LAY DRIFTER TRACKS BY AUGUST 30 (ABOVE) AND BY OCTOBER 22 (BELOW)



HUNTERS SUPPLIED BOATS AND DEPLOYED DRIFTERS: BILLY SIELAK, WILLARD NEAKOK, WARREN LAMPE AND HARRIS AGUVLUK

## *Wildlife Interns!*

The summer of 2013 was very busy for our Wildlife Interns. Ianjon Brower, math major at UAF, helped with our fish study and polar bear hair project. Roberta Glenn, Cal-Poly student transferring to UAA, helped with caribou surveys as well as many other projects. Donald “Gunnar” Carroll, Iḷisagvik student, assisted with the lemming trapping study and other projects.

We had two interns funded by ANSEP, the Alaska Native Science and Engineering Program, Shaylyn “Yosty” Storms of Unalakleet, Environmental Science major at UAA, and Jesstin Patterson of Barrow, Engineering student at UAF. These interns learned more about our bowhead research and participated in other projects as well. We hope to support more NSB ANSEP students in the future!

Two of our interns recently graduated from BHS, Elmer Thompson, Jr., and Lynette Hepa. We are hoping their experiences with us will encourage them to study science or a related field, and to pursue a career in wildlife biology or wildlife veterinary science!



*ANSEP INTERNS YOSTY STORMS & JESSTIN PATTERSON*

If you are an NSB college student and interested in wildlife biology, contact us about working with us as an intern!

*WILDLIFE INTERNS IANJON BROWER, ROBERTA GLENN, GUNNAR CARROLL, ELMER THOMPSON AND LYNETTE HEPA*



## *Mashantucket Pequot Students to Point Lay*

NSB-DWM and Mystic Aquarium in Connecticut have worked together to bring students from Point Lay to Mystic in an Educational Exchange to “follow the beluga samples” that are collected during the summer beluga hunt back to the laboratory. Robert Suydam works with Tracy Romano of Mystic to study the health of the beluga. At the Aquarium students learn more about beluga health and about other animals. They also learn about “city life,” the east coast environment, and they interact with the local Mashantucket Pequot tribe.

This cultural exchange has only been one-way for the last three years, until this July. Mashantucket Pequot students Ashanti Kelly, Brianna and Shaquanna Sebastian, with chaperones Crissy Gray and Jason Mancini, traveled from their

reservation to Point Lay.

While in Point Lay, the visitors toured the village, saw bearded seal and walrus butchering, walked along the barrier island on the Chukchi Sea, entered the Fourth of July parade and enjoyed festivities. They assisted biologists with beluga sampling, and participated in the community butchering of the successful beluga harvest.

On the way back to Connecticut, they were able to take a trip to Point Barrow, visit the IHC museum and meet with Mayor Brower. Many friendships were forged and lifelong connections made during their visit. We hope to be able to continue these exchanges between the North Slope and Connecticut into the future, building on the common link of whaling, past and present.



*BRIANNA, SHAQUANNA, ROBERT LISBOURNE AND TIMOTHY FERREIRA OF POINT LAY, JASON, CRISSY AND ASHANTI WAITING TO RETURN HOME*



### North Slope Borough Department of Wildlife Management

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[www.north-slope.org/departments/wildlife/](http://www.north-slope.org/departments/wildlife/)  
Director: Taqulik Hepa  
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. Qwyanaqpak!*

BECOME AN NSB-DWM  
FACEBOOK FAN!

### Summer with Kids!

This past summer we talked with lots of North Slope kids! In July, we walked the middle lagoon boardwalk with Tuzzy Library Kids and the City of Barrow Summer Camp, looking at birds and flowers, and scooping up critters in the water. In August, the DWM hosted the *Qaunakutiniq* Thursday with a walk on the beach, seine netting, and healthy snacks of *nigliq* soup, donuts, sandwiches and apples.

The last week of July, NSB-DWM held the Arctic Science Research Summer Camp at Iļisaġvik College for 9th-12th graders. We had five students participate from Barrow and Point Hope. Students learned about our research projects and participated in field work



*KOBE PANIGEO, ANDREA SPICER, SADIE BROWER, AND COREY TUZROYLUKE WORKING ON THE FISH STUDY*

and a necropsy, among other things. We hope our camp sparks interest in the students to become wildlife biologists.

If you are interested in a talk to students or community members about wildlife, please contact us!

### Mold on Aanaakliq in Nuiqsut

Residents of Nuiqsut informed DWM in early October of unusual growth on *aanaakliq* (broad whitefish) and were concerned about fish health, whether edible, and if this was related to industrial pollution. Billy Adams and Todd Sformo collected fish and water samples. The lab results indicate normal water chemistry with no detection of “diesel-type” contaminants. The Alaska State Fish Pathology Lab and the USGS Western Fisheries Research Center identified the growth as *Sarprolegnia*, a water mold that is known to affect fish. There is no risk to human health; however, we encourage fishermen to maintain their traditional and customary practices and not eat fish they feel are not healthy.

The NSB-DWM continues to work with local residents in Nuiqsut who have been a tremen-



*FISH WITH WATER MOLD CAUGHT NEAR NUIQSUT IN OCTOBER*

dous help in securing samples and information allowing for a quick response. We are working with fish and mold experts to devise sampling/study plans for break-up, the summer and spawning season.

Local fishermen have seen no evidence of mold on *qaaktaq* (arctic cisco) or other whitefish. The *qaaktaq* fishery is underway and we are making every effort to monitor fish for mold.

Should you find an unusual fish, please contact us at **907-852-0350**. If possible, keep samples cold but not frozen, and provide us with this information: number of fish affected, number of normal-looking fish, location and date caught, and any photos taken.