

**LEO meeting
Bering Strait: Ice seal UME
May 2012**




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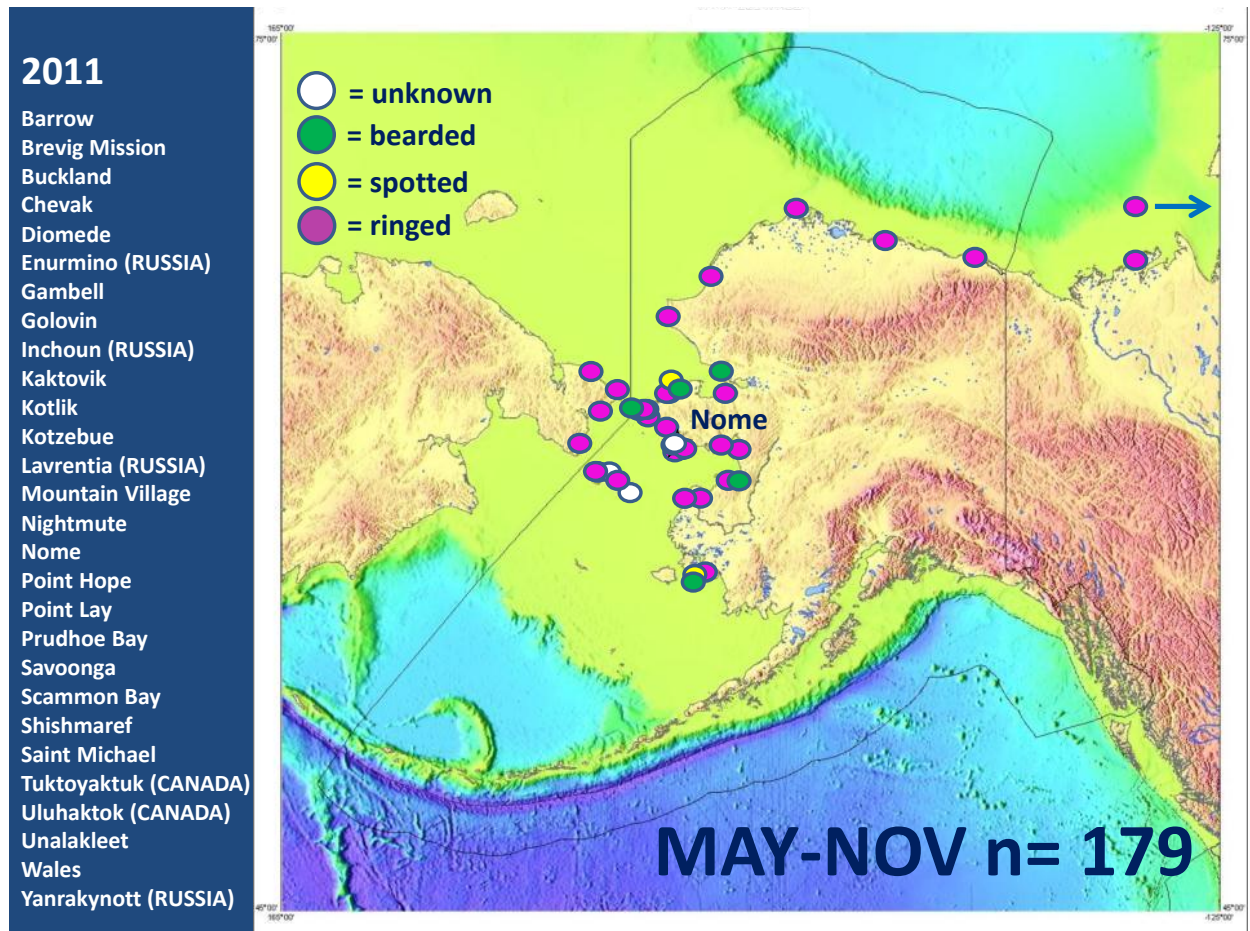
Slide 1: these are healthy examples of our four ice seals: ringed seal, bearded, ribbon and spotted. All have shown evidence of this sickness.

Historical

A photograph of a harvested seal head, likely a harbor seal, resting on a wooden surface. The seal's fur is dark and appears matted or thin in some areas. A large, bloody wound is visible on the forehead, with some yellowish material (possibly pus or dried blood) around it. The seal's eye is visible, and its whiskers are prominent. The background is dark and indistinct.

1997 – Ringed: E. Norton Sound
1999 – Ringed: Shishmaref
2002 – Spotted: Shishmaref
Bearded: E. Norton Sound

Slide 2: A subsistence harvested seal in 1999. Hairless occurs occasionally. This animal's hair did not grow properly, but otherwise it does not meet the definition of the currently illness. By fall the seal should have a nice coat. Very unusual to see a seal without a nice coat in the fall.



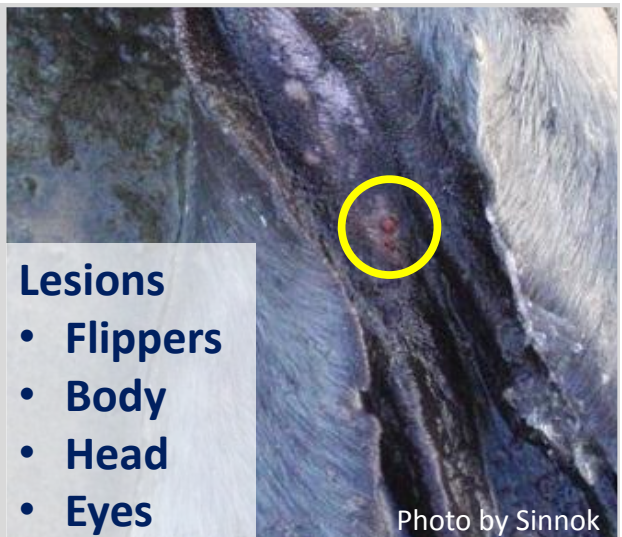
Slide 3: Important we all need to talk to each other more. Canada and NSB were seeing seals that were sick and discussing this. Bering Strait started seeing these in July. Asked people started talking we began to realize what a big area this illness was affecting.



Slide 4: This slide shows examples of sick seals. Four different seals that were affected by this illness. They were all very approachable.

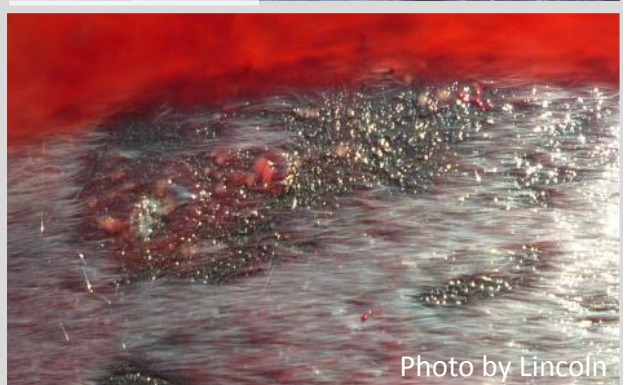


Slide 5: All of these photos were taken in Shismaref right around Halloween and they were bringing in all types of seals without their new coat. These seals never replaced their hair. Gay thinks whatever got to these seals happened before last spring. There seems to be the lack of a signal to grow their new hair. Virginia Washington - normally this time of year we would be skinning seal, but this year it is delayed. There is hunting occurring now from Unalakleet to Nome.



Lesions

- Flippers
- Body
- Head
- Eyes



Slide 6: Four images of different lesions. When this occurred people were describing the seals as without new hair and tired. The first top left photo was taken in Shish. You can see the little orange bumps which have never been previously reported in seals. The red raised bumps were reported through November. Lower left in March in Yakutat this seal with bumps was found and euthanized. So you can see the bumps that are also on seal flippers. Lower right. The red and white sores that hunters have been reporting.



Slide 7: seal has a droopy eye and swelling. Other things that people have reported are that they can hear the seal breathing and rasping breath. Seal may be breathing very hard. Also that the seals are making shorter dive duration. The lungs may be congested. There were about twenty seal carcasses sent to specialists by NSB. Bering Strait had whole carcasses sent in for analysis as well. Animals were choosing to be on shore, rather than in the water. Also an odd smell during butchering

DISEASE TESTING

Virology and bacteriology: Results have been negative or not detectable, not consistent, or are at normal background levels.

Testing expanded to environmental factors

- Immune system-related diseases

- Fungi

- Bio-toxins (negative) and man-made toxins

- Radiation exposure

- Contaminants

- Changes in the climate

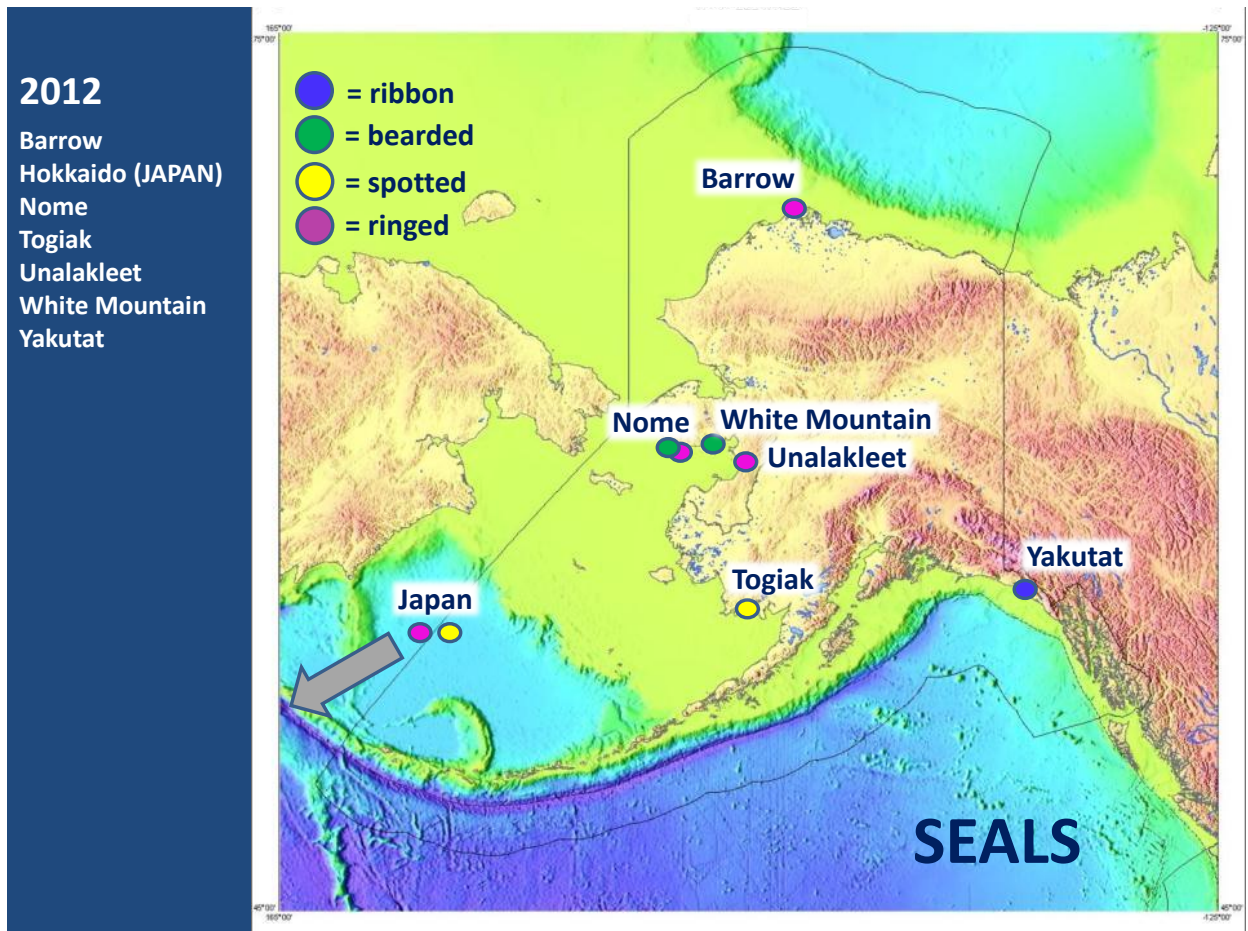
Slide 9: testing is proceeding and they have been unable to find a virus cause. Also testing for other possible environmental causes including fungi spore (like orange in Kivalina), bio toxins, and radiation. This has been a big scare because of the power plant disaster in Japan and other sources of radiation in the environment. NSB have pushed to have testing done. All of the seals sampled are being tested at UAF for radiation.

Radionuclide Analysis

- Concern of communities
 - Samples collected
 - Cesium-134 and -137
 - UAF testing
- Preliminary results indicate typical levels and NOT unusual
 - Final results...June?
- Modeling potential exposure from Fukushima Daiichi nuclear disaster



Slide 10: Doug Dasher and John Kelly at UAF are testing the seals for radionuclides at UAF. Final document will be out in June.



Slide 11: Map of where seals have been seen in 2012 with these symptoms. The seals that are showing up now look like they may be survivors, rather than new cases.

2012



Slide 12: Top two seals were reported in Japan, which should have hair in January. The bottom ribbon seal is very swollen and has no hair.

2012



**White Mt.
April**



Slide 13: Seal turned in during April. Not a new case but rather a survivor from last year's illness. Bottom slide is from a young bearded seal. Seal looks extra fat and you can see that it is swollen

2012**Unalakleet
May**

Slide 14: This was turned in from Unalakleet last week. They seal had blood and mucus and a patch of hair came off in the hunters hands. This looked like a new case, but the veterinarian was actually the result of a wound, and the patch of skin was something else that is not thoughts to be a case of the related illness.

2012 - other

**Savoonga
April**



**Chefornak
April**



Slide 15: Pictures of walrus which are also included in the UME. There was a haul out event in Point Lay noticed that a bunch of the animals (about 30) did not look right so they were included in the UME. Two skin samples were sent into the lab. The bottom is an injury that is healing. IGAP in Chefornak took photos and sent the samples in. The concern was whether it could be eaten. This animal was actually fine. The top picture from Savoonga is being studied.

Message



SAFE HANDLING

Rely on traditional and customary food handling practices

State Public Health:

- If sick, contact health care provider
- Do not eat animals that look sick
- Do not let dogs contact sick animals
- Wearing rubber gloves reduces exposure
- Washing hands / equipment reduces transmission
- Cooking meat helps kill parasites and bacteria

Slide 16: Safe Handling - don't eat the seal if it looks sick. But what about seal oil, organs, frozen, aging etc? The recommendation is to continue to rely on traditional and safe handling practices. There have been no reports of sick people or sick pets from eating these animals. Gay has herself eaten a sick seal (unintentionally) and she is ok. Virginia - one of the persons at the Tribal Leaders Summit (EPA) said we should have an aquarium and see how to make them well. Gay - this idea has come up again and again. People want to know if they can send sick animals for treatment and studying. One problem is the regulations and rules about sea mammals and sick animals that are an obstacle to doing this. The UME group however is looking into this. It is a good idea and people are working on it.

Message

Future recommendations


- Remain vigilant
- Report unusual animals
- NSB, EWC, UAF, NMFS collecting reports, carcasses, etc.
- Stay tuned!

Slide 17: Future Recommendations - we are asking all of the communities to remain vigilant and to call in reports. Still waiting on labs all over the world to report their findings.

Thank you

- Bering Strait / Y-K Delta community members
- North Slope Borough – Dept. of Wildlife Management
- Eskimo Walrus Commission
- Alaska Native Tribal Health Consortium
- Alaska Marine Mammal Stranding Network
- Alaska Veterinary Pathology Services
- Region V ADF&G (DWC)
- National Marine Fisheries Service – Alaska region
- Evergreen Air, Bering Air, Era Aviation

Questions?



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