



Northern Pinnipeds (Ice Seals & Walruses)

Unusual Mortality Event (UME)

March 2012 Update



Is it a sick marine mammal?

Signs to look for

Seals with some fur loss can be seen in the late spring during their normal annual molting process when old fur is replaced by the growth of new fur during the late spring/summer. Seals with major hair loss are not normal during spring, and seals with the currently undetermined illness that have survived the winter will still have no new hair growth and, as a result, can be expected to be observed with an abnormal amount of hairless skin this spring. Coastal community members should remain vigilant in their wildlife observations. If you see a seal with large portions of hairless skin and/or other symptoms associated with the unknown disease such as sores on the flippers, face, body, and if a seal does not flee if approached, please report it to your regional points of contacts listed below.

Reporting

Anyone who sees seals with the physical and/or behavioral conditions described above (either alive or dead) should contact the NOAA Fisheries Alaska Marine Mammal Stranding Hotline, local Marine Mammal Stranding Network members, or other wildlife authorities at the following numbers:

- Statewide: NOAA Fisheries Alaska Marine Mammal Stranding hotline: 1-877-925-7773
- North Slope: North Slope Borough Department of Wildlife Management: 907-852-0350
- Bering Strait: Alaska Sea Grant Marine Advisory Program: 1-800-478-2202 / 907-443-2397
- Bering Strait: Eskimo Walrus Commission: 1-877-277-4392
- Yukon-Kuskokwim: Alaska Sea Grant Marine Advisory Program: 907-842-8323

Unlisted regions should use the "statewide" hotline. Contacts for these regions are currently being established and appropriate numbers will be provided as they become available.

Public Reminder

Subsistence harvest of seals by Alaska Natives is legal and of significant nutritional and cultural importance. Harassment of seals by the general public is unlawful under the Marine Mammal Protection Act. Harassment includes causing a seal to flee or altering its normal behavior. Do not approach or disturb a seal, especially if it seems ill. Using binoculars is the best way to get a closer look without bothering the animal.

Recent Reports

North Slope Region

Reports from the North Slope Borough indicate that hunters during early winter observed many healthy bearded and ringed seals. The seals behaved normally: they were playful, curious but cautious, and maintained distance from boats. No lesions were observed on any seals.

During December and January, 20-30 adult ringed seals were harvested from leads in the sea ice in the North Slope Borough. Based on local reports, these seals had neither hair loss nor lesions. However, during late February, a young ringed seal with nodular and eroded flipper lesions but no hair loss was harvested. Additionally, necropsy results of the internal organs were consistent with

animals with this disease that continues to affect ice seals in the North Slope Borough and Bering Strait regions.

Bering Strait Region

During late January, a sub-adult ringed seal was reported with hair loss from its chest to the stomach area. This is the only report of hair loss in a seal since late November.

Bristol Bay Region

Hunters in Togiak reported a spotted seal in February with hair loss. No open sores or other lesions were reported on this animal. Other harvested seals were reported to be healthy. Currently, there is no evidence that the disease outbreak is present in seals or walrus in this area.

Aleutian and Pribilof Region

No reports to date.

Gulf of Alaska Region



Photo credit: Bill Lucey, Yakutat, AK, Feb. 29, 2012

On Wednesday, February 29, 2012, a seal which appeared to be sick was captured in Yakutat, after having been observed several times hauled out on shore. Because the seal was reported to have had no new hair growth (resulting in almost total hair loss) with skin sores and did not flee when approached, the animal was transferred to Anchorage for further examination by a pathologist, wildlife veterinarians from the Alaska SeaLife Center, Bridge Veterinary Services, North Slope Borough, Department of Wildlife management and others with the UAF- Marine Advisory Program and the North Slope Borough Department of Wildlife Management.

Due to its condition, the seal was euthanized. Veterinary pathologist Kathy Burek-Huntington led the necropsy on the animal and confirmed almost total hair loss and nodular, ulcerated scabbed skin sores. Necropsy findings indicated that this seal's symptoms were consistent with the disease process affecting ice seals from the North Slope Borough through the Bering Strait area.

Given that most of the distinctly-patterned fur was missing from this seal, a sample of the DNA was sent to NOAA Fisheries Southwest Fisheries Science Center in order to confirm species identity. If a ringed seal, it will be the first ringed seal reported in the Gulf of Alaska, far outside the ringed seal's normal habitat range. It is not unheard of, however, for other species of the northern sea ice seal to venture south into the Gulf of Alaska or beyond. Past sightings of ribbon seals have occurred near Anchorage and in Tracy Arm Fiord in Southeast Alaska. Earlier this year, a healthy ribbon seal was found hauled out in Central Puget Sound, Washington.

Southeast Region

No reports to date

Current Progress

The underlying cause of the Alaska UME disease remains a mystery. Testing has ruled out numerous bacteria and viruses known to affect marine mammals, including Phocine distemper, influenza,

Leptospirosis, Calicivirus, orthopoxvirus, and poxvirus. Foreign animal diseases and some domestic animal diseases tested for and found negative include foot and mouth disease, VES, pan picornavirus, Rickettsial agents. Last month, preliminary radiation testing results were announced which indicate radiation exposure is likely not a factor in the illness. Further quantitative radionuclide testing is occurring this spring. Results will be made publicly available as soon as the analyses are completed.

Seward Stranding Meeting

The Northern Pinniped Unusual Mortality Event was discussed extensively at the annual Alaska Region Marine Mammal Stranding Network Meeting held in Seward at the Alaska SeaLife Center Feb. 28-29, 2012. Responders from Barrow and Nome shared the history of the event with stranding responders from around the state, and pathology results were shared by Alaska Veterinary Pathology Services. Information presented was similar to that presented at the Alaska Marine Science Symposium in January.

The NOAA Fisheries Northeast Region Stranding Coordinator also attended the meeting and presented information on the Unusual Mortality Event affecting harbor seals in New England. The cause of this UME has been identified as influenza, a virus that has tested negative in the Alaska ice seal and walrus UME. A third UME in the U.S. is currently affecting bottlenose dolphins in the northern Gulf of Mexico. This disease outbreak in the Gulf of Mexico has been associated with the bacteria *Brucella*.

Correction

Some media reports and blogs are reporting that nodules were found on the brains of diseased seals. This is not accurate. Nodules have been found on the skin of affected animals, but not on the brain. Findings from dead seals have shown significant lesions in the skin, respiratory system, liver, lymphoid system and heart.

For history and more information about Unusual Mortality Events, visit the NOAA Fisheries Office of Protected Resources Marine Mammal Unusual Mortality Events website:

<http://www.nmfs.noaa.gov/pr/health/mmume/>

For more background on the Alaska UME and future updates, see:

<http://alaskafisheries.noaa.gov/protectedresources/seals/ice/diseased/default.htm>

http://alaska.fws.gov/fisheries/mmm/walrus/disease_investigation.htm