Seal and Walrus Disease UPDATE October 2012

The North Slope Borough Department of Wildlife Management (NSB-DWM) and regional representatives continue to work with Alaska Native hunters, Ice Seal Committee and Walrus Commission, federal, state and tribal agencies, and public health experts to investigate the cause of the 2011 disease outbreak in ice seals and some walrus. The investigation is ongoing and we continue to monitor for new cases.

Background: During July 2011, the North Slope Borough Department of Wildlife Management (NSB-DWM) wildlife biologists and hunters observed an unusual number (about 64) of *nathaliq* (ringed seals or *Phoca hispida*) hauling out on the beaches near Barrow as well as an increase in recovery of dead ringed seals (49 carcasses). Live seals appeared weak, tired, and were easily approachable. Human disturbance did not cause a typical flight response. The NSB-DWM initiated an investigation into the event (tracking cases, collecting carcasses and sampling for examination and testing). Most cases on the North Slope have been ringed seals but similar signs were later reported in other species: bearded seals, walruses near Pt. Lay, and spotted seals in the Bering Straits region. Cases were also reported from Chukotka, Russia, and northwest Canada.

A UME (Unusual Mortality Event) was declared by the federal government in December 2011 due to the number of animals involved, the number of species, and the geographical extent. This UME designation allows for federal funding to support the investigation. Dr. Raphaela Stimmelmayr of NSB-DWM has been designated as the UME on-site coordinator, leading the investigation in collaboration with Joel Gatlich-Miller (US Fish and Wildlife Service), Aleria Jensen (National Marine Fisheries Service) and Dr. Stephen Raverty (Working Group Liaison).

We do not yet know what caused seals to be sick. There may be no single cause. The usual viruses and bacteria agents have been checked. Results have either been negative or not detectable, not consistent between the cases, or similar to normal background levels. Testing continues for a wide range of possible factors, including immune system-related diseases, fungi, man-made toxins and bio-toxins, radiation exposure, contaminants, and stressors related to sea ice change. Results are being shared as they become available.

Subsistence hunters are important primary observers of what is happening. In 2011, hunters had observed: abnormal behavior such as being easily approachable on foot, by 4-wheeler or by boat, patchy hair loss with skin sores, hair falls out easily, skin sores primarily on the hind flippers, skin irritation and/or blood around the nose and eyes, labored breathing, shorter dive times, longer on surface, or odd smell. Internal abnormalities were also seen during butchering (discolored liver or spleen, bloody lungs, skinny animal, etc.). Russian hunters observed more ringed seals sinking when shot.

The pictures from 2011 on the right show examples of these symptoms that are seen in some animals: hair loss (patchy to extensive) (picture A), sloughing of skin at the base of the tail (picture B), and skin lesions (ulcers, sores or scabs) on the face and around the eyes (picture C) and on the hind flippers (picture D1-D3) as well as scattered across their body. Lesion size can range from very small up to ½ inch circular areas, and in some cases bleeding was noted.

Summer of 2012 and looking towards the Winter of 2012-2013

During the spring/summer of 2012, hunters reported catching ringed seals that looked and acted healthy. No seals as sick as last year have been seen on the North Slope. However, monitoring for any possible cases continues.

No evidence to date that the cause of this recent disease event is transmittable to humans. State Public Health advice is the same for using any wild game. Traditional subsistence hunters should use their best traditional and customary food handling practices and share information on what you see with community members and wildlife resource representatives, including NSB-DWM.

If you harvest a seal or other marine mammal on the North Slope that is not looking healthy or is acting strange, please contact the NSB-DWM at 852-0350 during days or 878-1793 or 878-1886 during evenings and weekends. You can find out more about this matter at the following NOAA websites: www.nmfs.noaa.gov/pr/health/mmume/ and www.alaskafisheries.noaa.gov/protectedresources/seals/ice/diseased/