

National Wildlife Health Center Wildlife Health Bulletin 2013-07

Avian Cholera in Alaskan Seabirds

To: Natural Resource/Conservation Managers

From: Dr. Jonathan Sleeman, Center Director, USGS National Wildlife Health Center

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Large numbers of sick and dead seabirds were observed washing ashore along the northern coast of Saint Lawrence Island, Alaska, in late November. Citizens of Gambell and Savoonga, the two tribal villages that are about 40 miles apart on this remote 100-mile long island in the Bering Sea, reported these birds immediately to the University of Alaska's Marine Advisory Program stationed in Nome. Villagers were able to collect some specimens from the initial die-off, including a thick-billed murre, a Northern fulmar, and a crested auklet. These specimens were expedited to the USGS National Wildlife Health Center for diagnostic necropsy and ancillary testing to determine cause of death.

Avian cholera (*Pasteurella multocida*) was diagnosed based on routine bacterial cultures of liver and characteristic lesions in all three bird specimens submitted. No other significant abnormalities were observed in the diagnostic evaluation of these birds. Testing for avian influenza was negative. Prior to this event, avian cholera has not been reported in Alaska. The closest avian cholera outbreaks reported in the past decade involved common eiders and snow geese in Nunavut and Northwest Territories, Canada.

Affected live birds were reported to be swimming in circles with heads laying over their backs "throwing one wing in the air" and subsequently dying. The weather in this area at the time was unseasonably mild with many recent southerly storms and freeze/thaw cycles. Average temperatures were in the mid 40's and the sea remained ice-free whereas sea ice normally would be forming by October. The two Alaska Native communities on Saint Lawrence Island rely almost exclusively on the subsistence harvest of many marine species, including birds, for food. Many seabirds use this area of the Bering Sea as a staging area during migration and it is an overwintering area for eiders, including the world's population of spectacled eiders.

Avian cholera outbreaks can be explosive and cause acute illness and death in wild birds. It can cause significant mortality in waterfowl species across North America. It can also affect avian predators/scavengers such as raptors, gulls, crows, and ravens. Initial concern by residents of Saint Lawrence Island was human health, safety, and food security; however, the avian strains of *P. multocida* that typically cause disease in birds pose low risk to humans. As with all potentially infectious agents, precautions should be taken when handling any birds found sick or dead. Wear waterproof or disposable gloves, and do not touch your face, rub your eyes, eat, drink or smoke while handling carcasses. Wear rubber boots or waders that can be washed or disinfected. Eye protection should also be considered. Wash hands in warm soapy water or use antibacterial gels to prevent infection through cuts and breaks in the skin, or by touching your mouth.

For more information, please visit NWHC's Avian Cholera page: http://www.nwhc.usgs.gov/disease_information/avian_cholera/index.jsp (includes links to the Alaska Department of Fish and Game media release and news stories).

To report or request assistance for wildlife mortality events or health issues, please visit the NWHC Web site at http://www.nwhc.usgs.gov/mortality_events/reporting.jsp or contact a NWHC staff member listed below (see majority-events/reporting.jsp or contact a NWHC staff member listed below (see majority-events/reporting.jsp or contact a NWHC staff member listed below (see

Western states: Barb Bodenstein, 608-270-2447, bbodenstein@usgs.gov

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