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STATE OF ALASKA

PRESS RELEASE

For Immediate Release

Alaska Rabies Outbreak Response Enhanced by Past Experience and New Methods

April 20, 2023 (Juneau) - During January and February 2023, wildlife and health officials in Alaska responded to increasing numbers of foxes in the Nome area acting aggressive both to humans and dogs, as well as showing other signs consistent with rabies. Anticipating this might be the cusp of a larger fox rabies outbreak, the Alaska Department of Fish and Game (ADF&G) and the United States Department of Agriculture - Wildlife Services (USDA – WS) directed staff to do enhanced surveillance on foxes in the city of Nome and collect additional data to better understand the factors causing this outbreak. Officials alerted the public of the rabies risks and gave advice on prevention and response.

The Norton Sound Health Corporation, the City of Nome, the Office of the State Veterinarian (part of the Alaska Department of Environmental Conservation's Division of Environmental Health), the National Park Service, the ADF&G and USDA – WS all coordinated efforts to address the situation.

ADF&G Wildlife Veterinarian Dr. Kimberlee Beckmen said that experience gained from the March 2021 response to the fox rabies outbreak in Western Alaska, and access to a new rapid diagnostic test, led to a prompt and well-coordinated effort to address this most recent rabies exposure risk to Nome area residents and their pets.

This year, the CDC donated Bionote rabies test kits to ADF&G. These kits can confirm in minutes if rabies is present (or not) in fox brain tissue, rather than the hours previously required. This allowed faster confirmation of exposure to a person or dog, and on specimens that could not be tested by the Alaska State Virology Laboratory (ASVL) in Fairbanks. Used during this response, the Bionote testing during necropsy allowed immediate notification of authorities and those exposed, and it sped up the submission of non-infected fox tissues for additional disease surveillance.

“Now we can test everything, even foxes in poor condition, and fast,” Dr. Beckmen said. “The rapid test helped us react more quickly and alert the public.”

The 2022 detections of highly pathogenic avian influenza in a red fox from Unalaska, and a rabid fox from Unalakleet (and in dozens of red foxes throughout the US) highlighted the need for enhanced surveillance in wildlife, especially scavengers like red foxes.

“Foxes are susceptible to avian influenza because they scavenged on infected waterfowl that have died from the virus,” Dr. Beckmen said, “So we want to do enhanced disease surveillance, assess exposure risk and test for multiple pathogens. We can do a lot more and understand what is going on in the population with freshly collected foxes.”

Preliminary 2023 results are already showing differences from the 2021 samples. Of the 11 that were found dead or killed in Nome by dogs or because they appeared rabid, 100% were positive. Overall, of 61 red foxes from the area in and around Nome in February and March 2023, 23% were positive. This is increased over the 17% positive red fox tested during the similar period in 2021.

Rabies is normally present at a very low level in red fox populations, about one percent, known as an enzootic level. A rise to three percent in the population is considered an epizootic level - temporarily more prevalent.

“Five to seven or eight percent or multiple rabies cases per day in one location really gets your attention,” Dr. Beckmen said.

Rabies vaccination of pet dogs remains the most critical step in preventing rabies exposure to Alaskans. Vaccination and control of stray and feral dog populations and eliminating fox attractants such as dog food and garbage left available is important. Foxes transmit rabies to dogs, and then unvaccinated dogs transmit it to people.

“Dogs represent the greatest risk of transmitting rabies to people. It’s very important all dogs be vaccinated appropriately,” Dr. Beckmen said.

She added that it’s not yet known what factors have precipitated this severe outbreak. However, there are reports of unexpectedly high fox populations. Abundant lemmings in 2021-22 would also have allowed a fox reproduction boom adding many young susceptible foxes into the region.

The response to the rabies situation in Nome highlights how cooperative actions of multiple agencies and entities can come together in a crisis to mitigate a human health as well as animal health emergency.

Link to ADF&G website on Rabies, see the bottom of the webpage for pamphlets on FAQs and Facts about Rabies and Trapping:

<https://www.adfg.alaska.gov/index.cfm?adfg=disease.general1>

Link to the Department of Public Health on Rabies:

<https://health.alaska.gov/dph/Epi/id/Pages/rabies/default.aspx>

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