

Rabies in Wildlife: Frequently Asked Questions for Alaskans

Where does *rabies* occur?

In Alaska, rabies is endemic (meaning always present at a low level) in arctic and/or red foxes along the north and west coasts of Alaska. Outbreaks are epidemics (called epizootics when in animals) that occur in cycles when rabies cases increase dramatically. In foxes, the epizootic is typically the year after a boom in lemmings. This winter (2012-13) there was an epizootic in foxes in the Prudhoe Bay and Kotzebue areas. In 2007 there was an even larger, wide spread epizootic. In March 2013, 2 wolves with rabies were discovered in the Chandalar Lake area, which was the first time since 1945-47 that rabies had been detected in wildlife in the Interior. There have also been two cases of rabies in bats in southeastern Alaska. Several cases in dogs imported to Anchorage and Fairbanks from rabies endemic areas or exposed to infected animals and/or carcasses from endemic areas.

How do people become exposed to *rabies* in Alaska?

Most people are exposed by a bite or scratch from an infected fox or from an unvaccinated dog that has been bitten by a fox. The rabies virus is present in saliva or nervous (brain) tissue in an infected animal and shed in saliva. If the virus is transmitted into a wound such as a bite/cut or into the eyes/nose/mouth of a susceptible person, the person can be exposed. Washing and flushing out wounds promptly and receiving immediate medical care followed by vaccinations are critical to prevent infection.

What are the signs of rabies?

Most people have heard of the ‘mad’ behavior or the ‘foaming at the mouth’ in a rabid animal but those are not the only, or even typical signs of rabies in an animal. The animal may show little fear of people, walking in a wobbly or shaky manner, appear dull or unaware of its surrounds, bite at inanimate or moving objects, or have seizures.

Which animals can be infected?

All mammals are susceptible to becoming infected with rabies but not all are as effective at transmitting the virus through shedding in the saliva. Rabies virus ‘strains’ also vary in how infectious they are for different species. Arctic foxes are adapted to the virus circulating in Alaska so the incubation period can be very long (up to 16 months), but when they start to show signs, they are shedding lots of virus in their saliva and will die soon. Rodents on the other hand, do not shed virus well in the saliva, and die very quickly after being infected. Recently in Virginia, in two separate incidents, rabid beavers infected with a raccoon rabies strain attacked swimmers. Rarely, reindeer and caribou in Alaska have been infected and become very aggressive. Recently in Russia, a moose calf that was hit by a car was brought in to rehabilitation and then exposed a number of people to rabies.

How is rabies treated?

Once signs or symptoms of rabies appear, the infection is 100% fatal. Only one person has survived an experimental coma treatment. However, if the wound is cleaned immediately, rabies transmission may not occur. Rabies vaccinations and immunoglobulins are usually effective in people if administered quickly and well before symptoms occur.

Why the concerns now?

In late March 2013, a trapper in the Chandalar Lake area was approached by a wolf. He shot the wolf, and while skinning it, he cut himself. The wolf tested positive for rabies. Chandalar Lakes is the farthest east and first case of rabies documented in wildlife south of the Brooks Range in Interior Alaska. The wolf's carcass was discarded in the woods near Palmer but retrieved later after being partially scavenged. This adds to the concern that rabies has spread. In one case, naturally, in the other, by transporting the carcass and potential transmission to scavengers like coyotes or dogs. A second rabid wolf was trapped in the same area 2 weeks earlier but wasn't identified until after the publicity of the first case. The trapper's dogs had been fed the wolf carcass and later put under quarantine in Fairbanks. In 1985, rabies occurred in a dog in Fairbanks after scavenging on a fox hit by a vehicle on the Haul Road and brought to town. An area wide quarantine of dogs and destruction of stray dogs, and vaccinations for a small child ensued.

How many animals are infected?

Recently, a joint study by ADF&G, ADEC, ADHSS and UAF examined over 1000 wildlife specimens including trapped foxes, with a newly approved screening test nicknamed "dRIT". This testing showed that almost 3% of red foxes trapped by Bethel area trappers were positive

for rabies when there was a rabies epidemic in progress. The next year, when there was no epidemic, still 1.5% of trapped foxes were positive. In 2012, ADF&G also detected the first ever case of rabies in a wolverine in North America. The animal was found dead near Umiat and thought to have died in May.

What can trappers do?

There has always been a risk of rabies transmission from foxes trapped in the endemic (coastal) areas of Alaska. However, we now know it is more prevalent in 'normally trapped' red foxes (3% in 1 study), and in other species, such as wolf and wolverine, in areas beyond just the coastal areas.

Trappers and hunters should always:

- wear gloves when skinning animals,
- wash any wounds thoroughly with soap and water,
- avoid cutting into the brain and spinal cord as much as possible, and
- wash knives with soap and water immediately after severing the head.
- dispose of carcasses of trapped animals in the area they are taken (to prevent introduction of disease in other parts of Alaska), burn or put in an sanitary landfill that will be covered immediately.

In addition, to help us understand the possible continuing incidence of rabies in the Interior, we are asking trappers in the Chandalar Lake area and Fortymile country to please bring frozen wolf/ wolverine /coyote or fox heads to the Fairbanks ADFG office for non-destructive rabies screening.

What can the public do?

Keep your pet's rabies vaccinations current to protect your family from unrecognized exposures from encounters with wildlife. Report strangely behaving sick or dead wildlife to the nearest ADF&G office and via email dfg.dwc.vet@alaska.gov.

If you have an encounter and have to kill wildlife, report to the State Troopers, your nearest ADF&G office and email dfg.dwc.vet@alaska.gov as well.

Who should I call if I have any questions?

If you think you may have been exposed to rabies, wash the wound and contact your health care provider who will contact the Alaska Section of Epidemiology at (907) 269-8000.

If you have questions about rabies in wildlife, you can call the ADF&G, Wildlife Conservation Division in Fairbanks 907-459-7213 or email dfg.dwc.vet@alaska.gov. See the ADF&G website: <http://www.adfg.alaska.gov> and click on "Species" and then "Diseases and Parasites"

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