Risk of SARS-CoV-2 (virus causing Covid-19) Spreading to Wildlife in Alaska, FAQs

Recent scientific research has shown exposure and infection with SARS-CoV-2 in several white-tailed deer populations. There appears to have been multiple introductions of the virus into white-tailed deer populations by infected humans. The variants detected in deer were the same variants detected in the community transmission of nearby human populations. Evidence suggests that there has been subsequent deer to deer transmission but no signs of illness in deer. Recently the first evidence indicates there has been a single transmission of SARS-CoV-2 from white tailed-deer to a human.

This susceptibility of white-tailed deer has raised concerns that wildlife could potentially serve as a ‘reservoir’ for SARS-CoV-2. Meaning that the virus could be maintained in wildlife populations and further mutate. In that case, there could be risk of a new variant forming in wildlife and spreading back to humans. Research examining this possibility in white-tailed deer and other suspected susceptible species is underway.

To reduce the risk of SARS-CoV-2 transmission to wildlife, ADF&G reminds the public to avoid specific interactions with wildlife. Feeding wildlife is illegal and given the possible disease concerns, it is even more important to not feed wildlife and to avoid leaving any human waste or trash where it may be sniffed, ingested, or contacted by wildlife.

Has SARS-CoV-2 been found in Alaska's wildlife?
No, but until recently, testing has been limited to only animals with signs of illness consistent with the infection and with likely exposure to an infected person. Prior to submitting a wildlife sample to a diagnostic lab, approval of the State Veterinarian is required. Any suspected detections of the virus in wildlife must be confirmed at a federal laboratory and then reported to state, federal and international health authorities.

Does SARS-CoV-2 pose a threat to Alaska’s wildlife populations?
The virus is unlikely to pose a significant health threat to wildlife populations. The infection of wildlife requires susceptibility to infection and exposure to infected humans or contaminated environments. For a wildlife population to be in danger, there must be repeated exposure to the virus such as animal to animal transmission along with significant illness. The only wildlife species in Alaska that are known from captivity to become ill when infected with the virus are mink and lynx. Other species are suspected to be susceptible to infection based on having virus-compatible cell receptors or being closely related to a species infected in zoos or experiments. These include reindeer, caribou, river otter, red fox, and bats.
How can wildlife get exposed to SARS-CoV-2?
Based on information from captive wildlife studies, zoos, and multiple white-tailed deer studies, wildlife are exposed to the human virus through contaminated sources such as water/wastewater or garbage. Close contact with wildlife, such as feeding, petting, or rehabilitation and release of wildlife are also high-risk activities. Recognizing these risks, ADF&G has established a policy for handling wildlife with strict adherence to guidance from experts and established safety protocols.

How does SARS-CoV-2 affect wildlife?
Illness has been seen in captive wildlife, especially big cats like lynx, but not documented in free-ranging wildlife. Signs included coughing, sneezing, difficulty breathing, fever, and dullness.

Can people get SARS-CoV-2 from harvesting wildlife?
There is currently no evidence that anyone has gotten COVID-19 by preparing or eating food, including harvesting wild game meat in the United States. However, hunters should practice good hygiene to protect themselves from SARS-CoV-2 and other diseases wildlife species may carry.

What testing is done and how is SARS-CoV-2 detected in wildlife?
The USGS National Wildlife Health Center, the Centers for Disease Control are coordinating with the U.S. Department of Agriculture and states including Alaska, to sample and test wildlife. Sampling is done on carcasses submitted for disease investigation from wildlife species with elevated risk of infection in locations where there is elevated risk of exposure from humans. Additionally, state and federal biologists that are live capturing known susceptible species such as lynx are collecting nasal swabs during radio-collaring. Samples are tested at accredited labs and confirmed at the National Veterinary Services Laboratory.

Is testing currently being done for SARS-CoV-2 wildlife in Alaska?
Testing has been very limited so far, but the Department in collaboration with the State Veterinarian and the National Wildlife Health Center are collecting samples for a broader surveillance. Wildlife surveillance will be targeted on known and suspected susceptible species and in wildlife populations that have a high exposure risk (i.e., live in urban areas).

Where can I learn more about SARS-CoV-2 in wildlife?
More information can be found on the CDC website:
https://www.cdc.gov/healthypets/covid-19/wildlife.html
What can be done to prevent the spread of SARS-CoV-2 in Alaska wildlife?

The best way to prevent the spread of pathogens (viruses, bacteria, parasites) to wildlife is to follow the general principals of avoiding contaminating the environment and unnecessary contact with living wildlife.

- Do not feed wildlife and prevent access to anything handled by people that might attract wildlife to sniff, lick, or chew.
- Do not allow wildlife to have contact with human waste or access trash.
- Do not pet wildlife.
- Do not pick up orphaned or injured wildlife; call ADF&G or the Alaska Wildlife Troopers to report instead.
- When recreating outside, leave no trace. Ensure your trash comes out with you and any bodily functions (including nose blowing) should be taken away from waterways and buried.
- Keep domestic animals from interacting with wildlife.

What is ADF&G doing about this?

The Department is continuing to monitor the health of wildlife populations and investigating the potential significance of this virus and other potential pathogens on wildlife health in Alaska. This includes:

- Taking samples from susceptible species of wildlife with high risk of exposure to infected people.
- Investigating dead and/or sick animals.
- Sampling wildlife handled during management or research projects for potential future studies.
- Incorporating SARS-CoV-2 testing into current respiratory pathogen monitoring of specific wildlife populations.
- Coordinating with the Department of Environmental Conservation on their efforts to screen and monitor reindeer and captive wildlife.
- Continuing to follow strict adherence to guidance from experts and established safety protocols when handling wildlife.

How can hunters and the public help?

Report any observation of abnormal behavior, sick or unexpectedly dead wildlife to an ADF&G office or via the website link: https://www.adfg.alaska.gov/index.cfm?adfg=distressedwildlife.mammals