



Winter Ticks in Yukon

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ANIMAL HEALTH PROGRAM

Animal Health Unit

The Animal Health Unit is responsible for health monitoring and diagnosis of disease in both wildlife and domestic animals. The staff provide expertise in laboratory services and in veterinary medicine to support public health and animal welfare.

The Animal Health Unit and Laboratory are located in the Department of Environment at 10 Burns Road, Whitehorse, Yukon.

Contact

Chief Veterinary Officer
Phone: 867-667-5600

Government of Yukon

Environment Yukon
P.O. Box 2703 (V-7)
Whitehorse, YT Y1A 2C6



Winter ticks (*Dermacentor albipictus*)

Winter ticks can be found on many different species of mammals including moose, white tailed deer, mule deer, elk, bison, wild sheep and caribou (ungulates). Rarely, winter ticks can be found on domestic animals but they do not remain on these species for very long or cause disease. Winter ticks do not feed on people.

Winter ticks can cause severe disease in some species, particularly in moose. Heavy tick loads can cause hair loss, skin irritation, and blood loss, which can lead to starvation and death.

To learn more about the impacts of this parasite on wildlife health, Environment Yukon is monitoring winter tick presence and distribution in Yukon.



Winter ticks in Northern Canada

In Yukon, winter ticks are found on low numbers of elk in the Braeburn and Takhini herds, and have been found occasionally on other species (mule deer, moose) in southern Yukon. Winter ticks have also been found on ungulates in the Northwest Territories. Winter ticks were first detected in Yukon in the early 1990s, moving into Yukon through natural movement of wildlife species such as deer and moose, with some movement potentially occurring via translocated wildlife.

Life cycle of winter ticks

Winter ticks are called "one-host ticks" which means they spend the majority of their life cycle on a single animal. A female tick lays eggs on the ground in summer and the eggs hatch into larvae. Larvae attach themselves to an animal host, consuming blood and eventually becoming an adult tick (usually in January and February). Adult ticks consume blood, then fall off the host in spring to repeat the life cycle.

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How do winter ticks cause disease?

If an animal becomes infected with winter ticks, a range of conditions may result, from no disease, to severe illness and death. The outcome for the animal will depend on a number of factors such as the host species and the number of ticks on the host.



Elk and deer are good at grooming off larval ticks in fall, and rarely develop heavy burdens of adult ticks. Moose only begin to groom when adult ticks are present, therefore they can develop very heavy tick burdens.

Grooming to remove adult ticks can cause hair loss and distract animals from feeding. This can lead to loss of body condition and increase the amount of energy an animal must use to keep warm in colder months. Adult ticks consume blood from their host, which also results in loss of energy. Eventually, animals with very heavy tick burdens can die due to starvation and inability to maintain body temperature.

Why should we care about winter ticks?

Although winter ticks are not passed directly from animal to animal, an increased number of ticks in the environment can lead to higher numbers of affected animals. Winter ticks can cause serious disease in some wildlife species. Elk with winter ticks usually do not develop any illness, or they may have a small amount of hair loss over the shoulders in winter. Moose are much more sensitive to winter ticks, and can develop severe disease that can lead to death. By studying the distribution and occurrence of winter ticks in Yukon, we can assess if ticks are a disease of concern in our wildlife populations.

Testing for winter tick in Yukon

Environment Yukon provides winter tick testing for all harvested elk (hides are a mandatory harvest submission for elk). We also encourage the submission of hides of harvested deer, moose or caribou. Road-killed ungulates are also tested. To participate, you can contact a Conservation Officer or the Animal Health Laboratory (867-667-5285) or bring the hide to Environment Yukon. The testing does not damage the hide, and the hide can be returned to you. It is important to continue to monitor Yukon wildlife to learn more about the distribution and impact of winter ticks in Yukon.



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