



WINTER TICK

Other names: *Dermacentor albipictus*, Moose Tick, Elk Tick

CAUSE

The winter tick (*Dermacentor albipictus*) is an especially large (~ 15mm in length) species of tick that parasitize moose, caribou, elk, white-tailed/mule/black-tailed deer, and bison.

SIGNIFICANCE

In years where tick populations are especially high, individual animals can be infested by thousands of ticks. Severe infestations can have detrimental impacts when they coincide with harsh winter conditions. These infestations can cause health issues that make individuals vulnerable to predation, poaching, and increase potential for road collisions with vehicles. Severe infestations can also result in the death of some individuals. Young animals are more severely affected by tick infestations. The CWHC diagnose several cases of cervids infested with winter ticks each year.

RISK TO HUMAN AND DOMESTIC ANIMAL HEALTH

In rare cases winter ticks may parasitize humans, however, these ticks do not carry diseases transmittable to humans and the meat of infected animals is suitable for eating. Winter ticks can parasitize cattle and horses, but do not appear to cause disease in these species. Therefore, winter ticks pose a negligible risk to human or domestic animal health.

TRANSMISSION

The mature ticks lay their eggs in June and their larvae occupy hosts between September and October. Once they occupy a host, the larval ticks feed on the moose allowing them to grow and develop to maturation through the winter. Once they've matured in late winter/early spring the ticks mate on their host, and in the spring the engorged females will drop off their host to the ground where they will lay their eggs in early summer. Larval ticks disperse from nesting grounds to nearby vegetation, which they climb and wait for a host to pass by. When an animal brushes against the vegetation the ticks can opportunistically climb onto the animal. Since ticks produce large numbers of eggs, animals passing through vegetation proximal to tick nests in the early fall can accumulate a large numbers of the parasites in a short period of time.

Moose are often the most severely affected because the mating season for moose coincides with the time period when tick larvae are most abundant. Their increased movement during this time increases the probability that they will pick up the parasites. It has also been suggested that the grooming habits of moose are less effective than those of other cervids and they tend to have a delayed response to infestations, allowing larger parasite loads to accumulate.

CLINICAL SIGNS

Irritation caused by winter tick infestations may cause animals to groom excessively in an attempt to alleviate the discomfort, resulting in the appearance of wounds and hair loss. In moose, extensive hair loss gives them a distinctly lighter colouration and are often referred to as “ghost moose”. Animals may also exhibit reduced fear and aversion to humans, they may appear to be lost or confused, and they may wander into areas outside of their normal habitat. Individuals may stop feeding, resulting in significant weight loss and emaciation. Severe infestations may also result in significant loss of blood in some cases. The overall impact of these symptoms is typically poor body condition in infested animals and can result in the death of some individuals.

MANAGEMENT AND PREVENTION

Winter tick is a natural and common parasite of wild cervids in many parts of Canada. Although heavy infestations of winter ticks may occasionally cause die-offs in cervids, there are typically no preventative or mitigating measures taken for wildlife. There are, however, a few precautionary measures that are recommended for people when handling animal carcasses to avoid being parasitized by the ticks:

- Wear gloves, long clothing, and close toed shoes.
- Apply an insect repellent containing 20-30% deet, picaridin, or IR3535.
- Conduct a thorough self -examination of your body and clothing immediately after handling a carcass. Any ticks present on clothing can be destroyed by placing them in a dryer and running it on a high heat cycle.
- Keep pets away from carcasses and remains.
- Throw away or destroy carcass remains to limit the risk of transmitting ticks to other domestic or wild animals.
- If you find a tick attached to you it is recommended that you follow the established protocols for tick removal as outlined by the **Public Health Agency of Canada**.
- Report any sick or dead birds to the Canadian Wildlife Health Cooperative. Find your closest regional centre at: <http://www.cwhc-rcsf.ca/contact.php>

SUGGESTED READING

- <http://blog.healthywildlife.ca/bc-moose-winter-tick-surveillance-program/>
- <http://blog.healthywildlife.ca/range-expansion-of-the-winter-tick-into-northwest-territories-canada/>
- <https://mffp.gouv.qc.ca/english/wildlife/wildlife-habitats/winter-tick.jsp#precautionary>
- <http://aep.alberta.ca/fish-wildlife/wildlife-diseases/documents/WinterTick-2004.pdf>



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