

UPDATE: WINTER TICKS ON WILD ELK

- **The Takhini and Braeburn elk herds were confirmed to be carrying 'winter ticks' in spring 2007.**
 - All eighteen female elk captured for radio-collaring in late March and April 2007 were observed to be carrying large numbers of ticks.
 - Ticks were collected and sent to BC's Centre for Disease Control laboratory for identification. They were confirmed to be *Dermacentor albipictus*, commonly known as the 'winter tick' (or 'moose tick' or 'elk tick').

- **The elk appeared healthy and in good body condition.**
 - Other than hair loss around necks and withers the elk showed no adverse effects from the ticks.
 - Elk are generally not seriously affected by the ticks they carry. The concern around winter ticks is related to their potential impact on moose and caribou.
 - Many other elk in the herd appeared to also have ticks, indicated by rough hair coats, scratching, and obvious areas of hair loss around their necks and withers.

- **Winter ticks do not pose a risk to human health.**
 - Winter ticks do not carry Lyme disease nor other tick diseases transmissible to people.
 - The winter tick is a 'one-host tick,' which means it stays on the same animal its whole life. Disease transmission between animals by the tick is therefore unlikely.

- **The risk to moose in the Yukon from the winter ticks is yet to be determined.**
 - Moose heavily infested with winter ticks die from emaciation and exposure. Moose lose energy from heat loss (with no hair), blood loss as ticks feed, and because they spend too much time/energy scratching and little time feeding.
 - In southern jurisdictions (such as Alberta and Manitoba) severe tick infestations in moose seem to occur in years when moose numbers are high or when warm summer and fall weather increase tick survival. Under these conditions, winter ticks can contribute to the deaths of significant numbers of moose.
 - There are significant differences between the situation in Yukon and southern jurisdictions and risk to Yukon species could be different. For one, our moose densities are not anywhere near those in southern jurisdictions.
 - A risk analysis will be carried out this winter with the involvement of co management partners and technical experts to consider the risk of tick transmission from elk to moose and caribou, the impacts of ticks on moose and caribou, and whether or not long term control measures are necessary. Yukoners and winter tick experts from across North America will be involved in the assessment.
 - The risk analysis process will be used to develop a long term management plan for winter tick.
 - Control strategies employed in other jurisdictions have had varying levels of success in reducing tick numbers. These have included: medicated feed stations, topical tick treatments at bait stations, and controlled burns.

➤ **Understanding the winter tick life cycle is important to determining the risks and control options.**

- In the fall, tick larvae cling to a passing animal and remain on that animal all winter, intermittently feeding and growing into adults.
- Ticks drop off the animal in the spring, and females lay eggs in the leaf litter where they drop.
- The eggs hatch to larvae in the summer, and in fall climb up vegetation to await a passing host.
- Ticks that drop onto snow in spring will die as will tick larvae that do not attach to a host in fall.

➤ **What is being done NOW to reduce the risk to Yukon wildlife?**

- As an interim measure, Yukon Government will treat elk with a medicated feed to reduce tick numbers and the risk of their spreading to other Yukon wildlife. Treatments will take place in February – March 2008 when most ticks are feeding and are most susceptible.
- Details around how medicated feed will be provided to elk will be worked out by Environment and partners in the immediate future.

➤ **Do winter ticks pose a risk to other species in Yukon?**

- Additional work is being done to understand the impact of the ticks on other wildlife species.
- Research done in captive animals showed that moose and caribou do not groom away as many ticks as elk or other species do.
- Deer in southern regions have been known to carry a small number of winter ticks, but we have not yet found ticks on any Yukon deer. Their potential role in the risk of transmission is not known and may not be significant.
- Bison, bears and other wild species in southern regions have been documented with a few winter ticks, but the numbers are not significant in the transmission, spread or establishment of the tick.
- We will be looking closely at deer, moose and caribou this winter to assess this further.

➤ **Winter ticks were brought in with introduced elk, but other sources of winter ticks need to be investigated.**

- Some elk released in the early 1990s had winter ticks on them, but at that time it was believed that the ticks could not establish in the Yukon.
- Warmer weather and elk's loyal reuse of habitat in recent years may have contributed to the increased survival of ticks.
- We do not know of cases of winter ticks surviving over-winter on domestic animals in the Yukon. Winter ticks have been found on a horse imported in the spring from Alberta and on some game farm animals in the past, but the ticks were eradicated.
- We have not confirmed any cases of winter tick on any other Yukon wild species.
- Yukon elk reuse the same habitat spring and fall, which may be amplifying the infestation.

If ticks are found, or for further information on ticks, you can contact Environment staff Michelle Oakley, Wildlife Veterinarian at (867) 634-2439; Rick Ward, Moose, Elk, Deer Biologist (867) 667-5787, or Philip Merchant, Laboratory Coordinator at (867) 667-5285. Out of town calls can be connected toll free through 1-800-661-0408