

Ticks and Other Nasties

Ticks



Interesting Fact: the tick is a member of the arachnid family, and is not an insect.

▲ A bite infected with Lyme Disease (right)



Hunting Patterns:

- Clings to grass and shrubs and climbs aboard when a host passes by
- Detects carbon dioxide emissions from a host as far as 25 feet away
- Attaches itself to the skin to feed on blood; can increase 20 – 50 times its size during one feeding

Potential Diseases: encephalitis, typhus, Lyme disease, tick paralysis, and Rocky Mountain Spotted Fever

- As of 2008 data ticks found in Alberta have not been associated with Lyme disease...yet!
- The source of these diseases stem from the ticks' stomach, therefore it is important to remove the tick promptly to prevent the tick from emptying its stomach contents into the host

Removing a tick:

- You can wait for it to become fully engorged and detach itself, or you can physically remove it
- Gently but firmly grasp the head of the tick with tweezers, keeping as close to the skin as possible. Apply a steady backward force until the tick lets go
- Any tick parts remaining in the wound must be removed to prevent infection
- Treat the wound with a germicide or antibiotic cream

Seek medical attention if:

- The head is buried under the skin and cannot be grasped with tweezers
- If the tick is from an area where tick diseases are known to occur. In this case keep the tick and give it to your physician for examination

DO NOT: try to entice the tick to pull out of the skin by using products such as oil, petroleum jelly, tape, lighted matches, etc. This will only prompt the tick to empty its stomach contents into the wound.

Prevention is Key:

- Cover up! Wear long pants tucked into your socks and long sleeves
- Spray yourself and your clothing with DEET.
- After hiking check yourself and each other (including pets) for ticks and brush them off. A tick can stay on a host for a few hours before it decides to attach itself into the skin and they are easier to remove before this happens.

Peak Season:

- Spring is the peak season for ticks in Alberta
- By end June hikers seldom encounter ticks and hikers should be pretty safe.
- Always take precautions, no matter what time of the year it is.

Horse Flies/Deer Flies



Interesting fact: the horse fly species *Hybomitra binei* is the fastest known flying insect, having been clocked at 145 km/h for a brief instant as it took flight.



Hunting Patterns:

- Only females bite because they require blood to develop their eggs
- Target specific areas where they are difficult to remove e.g. back of legs, in between shoulder blades
- Detects carbon dioxide emissions but primarily rely on their large eyes to find targets

Potential Diseases: tularemia, equine infectious anemia, vesicular stomatitis, hog cholera, encephalitis, anaplasmosis, trypanosomiasis, and filarial dermatosis of sheep.

Dealing with Bites:

- Prevention is key cover up! DEET products seem ineffective in preventing bites
- Horse fly bites are painful!
- Irritated and painful at the site of the bite for a few days but generally heals on its own within a week or so

Seek medical attention if you see signs of infection: increasing pain, hot, red and forming pus

Peak Season:

- Can be found in all rural settings from early June to late August
- Most active during warm, sunny days with little wind
- Tend to gather on hilltops where males and females meet to reproduce

Mountain Pine Beetle (MPB)



Interesting Fact: The temperature at which beetles start to die is not fixed, but varies given the larvae's response to daily temperature fluctuations.



Hunting Patterns:

- Releases a blue-stain fungus into pine trees which clogs and destroys the tree's connective tissue
- Attacks and kills every species of pine tree
- Discovered in BC in 2001 and spread to AB in 2006 when strong winds carried them over 400 km's
- If left unmanaged these beetles have the potential to devastate Alberta's pine forests

To report signs of MPB's call toll-free

Alberta Environment and Sustainable Resource Development.....P: 310-ESRD (3773)

Consequences:

Threatens watersheds by causing: a rise in water tables, reduced evaporation which increases stream flow, earlier run-off, and increased soil erosion leading to negative impacts on water quality, fisheries and wildlife habitat

Impacts recreational opportunities: popular recreational trails in BC have been forced to permanently close due to the extensive risk of dead falling trees.

Affects community sustainability: as of 2010 data 31,600 Albertans are employed in the forestry industry. In 2010 BC reported that 25,000 families had their livelihoods negatively impacted by the beetle infestation.

Increases the likelihood and intensity of wildfires: dead trees burn more intensely than live ones. Makes wildfires very difficult to suppress and puts forested communities at greater risk.

Major ecological impacts: reduction in the forest's ability to store carbon dioxide and regenerate new pine trees.

What you can do: Early detection is critical for managing infestations & preventing further spread.

- Avoid transporting firewood from one area to another, especially if the bark is still attached

Here are the most common symptoms to look for:



Trees successfully attacked by the mountain pine beetle during the previous season begin to turn yellow in June and July, and reddish brown by August.



Looking similar to crystallized honey, the tree will often produce a large amount of sap to help flush out invading beetles. The sap forms irregular creamy colored globs called pitch tubes on the outside of the tree bark.

References

Canada Trails - http://www.canadatrails.ca/hiking/hike_ab.html

Rocky Mountain Ramblers Association - <http://www.ramblers.ab.ca/public/outdoortopics/ticks.asp>

Wild Species 2010 –

<http://www.wildspecies.ca/wildspecies2010/results-insects-horseflies.cfm?lang=e>

Net Doctor - <http://www.netdoctor.co.uk/ate/skinandhair/204862.html>

Mountain Pine Beetle in Alberta - <http://mpb.alberta.ca>