

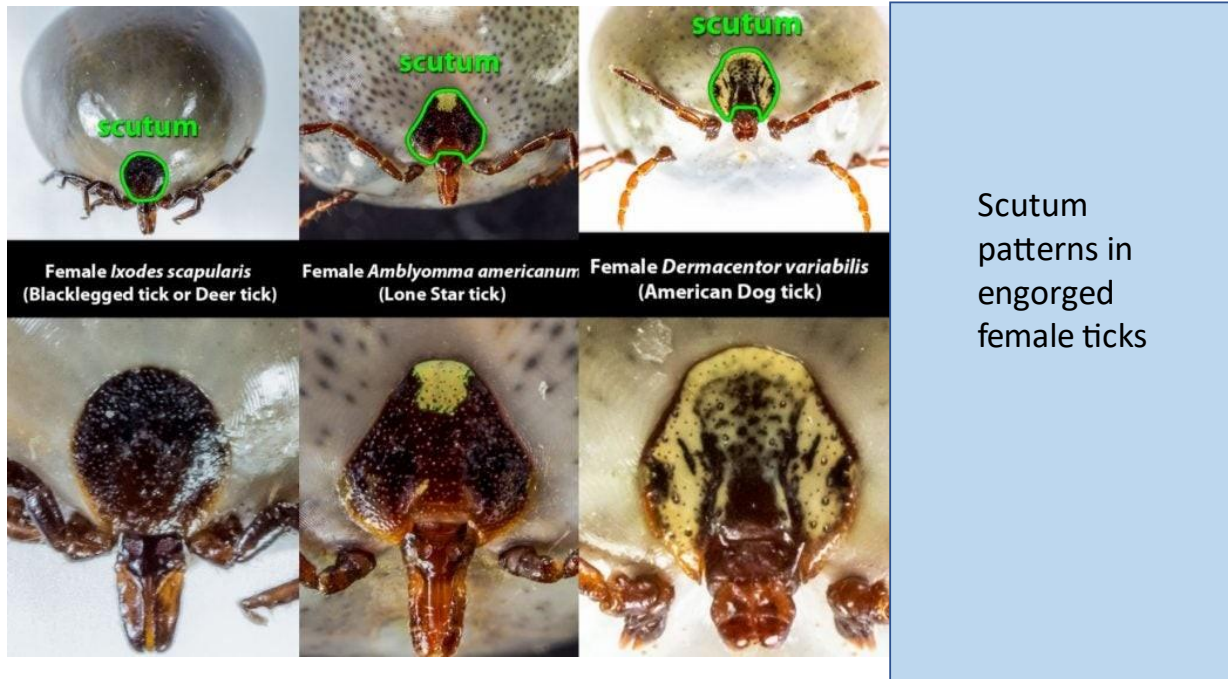


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For those of you who were unable to make it out tonight for the tick talk, here are some key resources you can use to get up to speed. E-tick is probably the best place to start. Get the app, identify those ticks and do your part to improve some amazing citizen science!!!

- [E-tick](#) - Public platform for image-based identification and population monitoring of ticks in Canada. Launched in 2017. Also has a mobile app to make submissions easy. The data is public so you can do search based on location, date, species or host type.
- [Grey Bruce Public Health](#) Dr. Dave Thompson referred to this local site. It has it all: a video on how to remove ticks properly, reference to many of the links below and even a link to E-tick!
- [Public Health Ontario](#) - Under Vector-Borne and Zoonotic Diseases you can find resources on Lyme disease, Tularemia, tick testing.
- [Public Health Agency of Canada](#) - Can find resources on tick surveillance, reports, infographics and information zoonotic diseases in Canada.
- [Pets and Ticks](#) – Provides evidenced based information on ticks and tick-borne diseases relevant to Canadian companion animals. Led by Drs. Scott Weese and Katie Clow from the Ontario Veterinary college and Dr. Michelle Evason from the Atlantic veterinary college.
- [Tick Talk Canada](#) - Website offers a series of educational videos that answer questions about ticks. Established by the Canadian Veterinary Medical Association. (CVMA)
- [Tick awareness Canada](#) - Has Ontario specific resources on illnesses, Lyme treatment, support groups and links to research articles.
- [Tick risk Map](#) - Tick location risk projection mapping compiled by CVMA and ECCC data.
- [Tick Encounter Resource Center](#) Excellent resources on tick ID and diseases. Provided from the university of Rhode Island.
- [Global Lyme Alliance](#) - Resources on prevention, diagnosis, and treatment for Lyme disease. Has research resources and patient support groups. Free registration to access all the resources.
- [Centers for Disease Control and Prevention](#) - American science-based organization that has a plethora of resources on ticks, diseases, treatments maps etc. in the USA.
- [Ticksafety.com](#) - American site that goes through tick ID, biology, diseases, habitat and distribution.

Ticks have been around forever. In this part of the world, until recently, this has been limited to areas south of us. Consistently below zero temperatures (over 2-weeks) is associated with tick mortality and now that we are warmer here, we have a tick problem. Get yourself a good pair of cheaters or a magnifying visor from Lee Valley or Princess Auto so you can safely remove the tick and then **identify** it. Flipping your binoculars around for the identification part was also recommended. Jeweler's forceps are readily available locally or online and the fine tips make them a good choice to avoid squeezing the body when pulling them out. Looking at scutum (part of the body) is a also a good way to help identify ticks even when they are engorged.



You can be exposed to ticks anytime the temp gets above 4, but they are most active in the spring and late fall as demonstrated in national and provincial studies below:

## Active Season for Ticks in Canada and Ontario

- Public Health Agency of Canada Surveillance of blacklegged ticks in Canada in 2019
- Over 11000 ticks collected across **Canada** predominantly in:
  - April- July
  - October – November
- Canadian Pet Tick Survey
- April 2019-March 2020 received 854 ticks from pets in central and southern **Ontario**
- 85%-90% of ticks (Blacklegged> Dog> Groundhog) were collected in:
  - April to June
  - October to November

Unfortunately, with our warming winters, we are going to be exposed to 4 more additional tick borne diseases/illnesses in addition to Lyme disease, which is caused by the bacteria *Borrelia burgdorferi*. Anaplasmosis, Babesiosis, Powassan Virus and *Borrelia miyamotoi* are all diseases transmitted by the Blacklegged/Deer tick and the Groundhog tick.

## Increased risk of tick-borne diseases with climate and environmental changes

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### Abstract

Climate warming and other environmental changes have contributed to the expansion of the range of several tick species into higher latitudes in North America. As temperatures increase in Canada, the environment becomes more suitable for ticks and the season suitable for tick activity lengthens, so tick-borne diseases are likely to become more common in Canada. In addition to Lyme disease, four other tick-borne diseases (TBDs) have started to emerge and are likely to increase: Anaplasmosis; Babesiosis; Powassan virus; and *Borrelia miyamotoi* disease. Increased temperature increases the survival and activity period of ticks, increases the range of both reservoir and tick hosts (e.g. mice and deer) and increases the duration of the season when people may be exposed to ticks. Other ticks and TBDs may spread into Canada as the climate changes. The public health strategies to mitigate the impact of all TBDs include surveillance to detect current and emerging TBDs, and public health actions to prevent infections by modifying environmental and social-behavioral risk factors through increasing public awareness. Clinical care strategies include patient education, early detection, laboratory testing, and treatment.

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Like it is with a lot of other things, prevention is the best medicine:



AVOID - WEAR - APPLY - REMOVE - EXAMINE

**A**

**AVOID** areas where ticks live. Ticks thrive in wood piles, long grass, leaf piles and beach grass.

**W**

**WEAR** light-colored clothing; long pants, sleeves, socks and close-toed shoes. Tuck long hair into hat.

**A**

**APPLY** EPA-approved tick repellent (such as picaridin or DEET) on skin and insecticide (such as permethrin) to clothing & shoes as directed.

**R**

**REMOVE** clothing upon entering the home; toss into dryer at HIGH temperature for 10-15 minutes.

**E**

**EXAMINE** yourself and your pets for ticks daily. Check everywhere--ticks love to hide!

# Tick Prevention at home

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Keeping grass low reduces humidity. Clear tall grasses and brush from around homes and the edges of lawns

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Clear leaf litter from yard if close to a forest

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Minimize tick hosts by planting deer resistant plants and put up deer fencing if needed.

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Remove wood and rock piles that can be nesting areas for mice

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Buy or make “tick tubes” that can reduce ticks feeding on mice. Permethrin-soaked cotton is offered to mice for nesting which can kill ticks if they go into the nest.

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Encourage tick predators like wild turkey, Opossums, pheasants, guinea fowl and chickens

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Encourage mice predators like Owls

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[Tick tube DIY](#)

So there you have it. A quick summary that ticks all the boxes in making you a tick aware individual!

Hope you enjoyed it,

Kimberly