

## “Hot spots” for blacklegged ticks found in Canada

Monday, April 23, 2018

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Ticks were collected by veterinary clinics and the general public between 2014 and 2016 and sent to the university as part of a [surveillance program](#). In evaluating the data, the authors identified “hot spots” in northern New Brunswick where *I. scapularis* ticks had been found on dogs.

“Canine infections were generally concentrated in the south-central portion of the province,” [Lieske states](#). “However, *Borrelia* seropositive dogs were also recorded in a number of pockets in northern New Brunswick, in areas where environmental conditions are not expected to favor tick occurrence.”

“Presumably,” the authors point out, “these zones of elevated canine Lyme disease risk also constitute areas of increased risk to human hosts.”

So, how did the ticks wind up in an unsuitable environment? Birds. “Long range dispersal, via avian hosts, remains the most persuasive explanation for the presence of ticks and [tick-borne infections](#) outside of the optimal (largely temperature-limited) environmental envelope,” Lieske writes.

Several studies, Lieske points out, have shown that ticks can be dispersed by migrating birds. “Adventitious ticks are able to leapfrog beyond established portions of their range.”

The prevalence of ticks in northern regions of Canada [may be underestimated](#). A recent paper by Lewis and colleagues shows that the rate of detection of *I. scapularis* ticks was significantly [higher for citizen scientists](#) than for professionals. [2]

It would be reasonable for the public to be aware of the growing threat of ticks in northern Canada.

### Related Articles:

[Dogs in Canada at risk for Lyme disease](#)

[Back yards at risk of migrating deer ticks](#)

[Tracking ticks in Canada with digital images](#)

[Hundreds of infected ticks found in one yard in Canada](#)

**References:**

1. Lieske DJ, Lloyd VK. Combining public participatory surveillance and occupancy modelling to predict the distributional response of *Ixodes scapularis* to climate change. *Ticks Tick Borne Dis.* 2018;9(3):695-706.
2. Lewis J, Boudreau CR, Patterson JW, Bradet-Legris J, Lloyd VK. Citizen Science and Community Engagement in Tick Surveillance-A Canadian Case Study. *Healthcare (Basel).* 2018;6(1).

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