



Talking about ticks- communicating into a challenging and changing environment

Anne-Marie Nicol, Knowledge Translation Scientist

Five stages of female blacklegged
ticks as they feed



Climate Change and Ticks



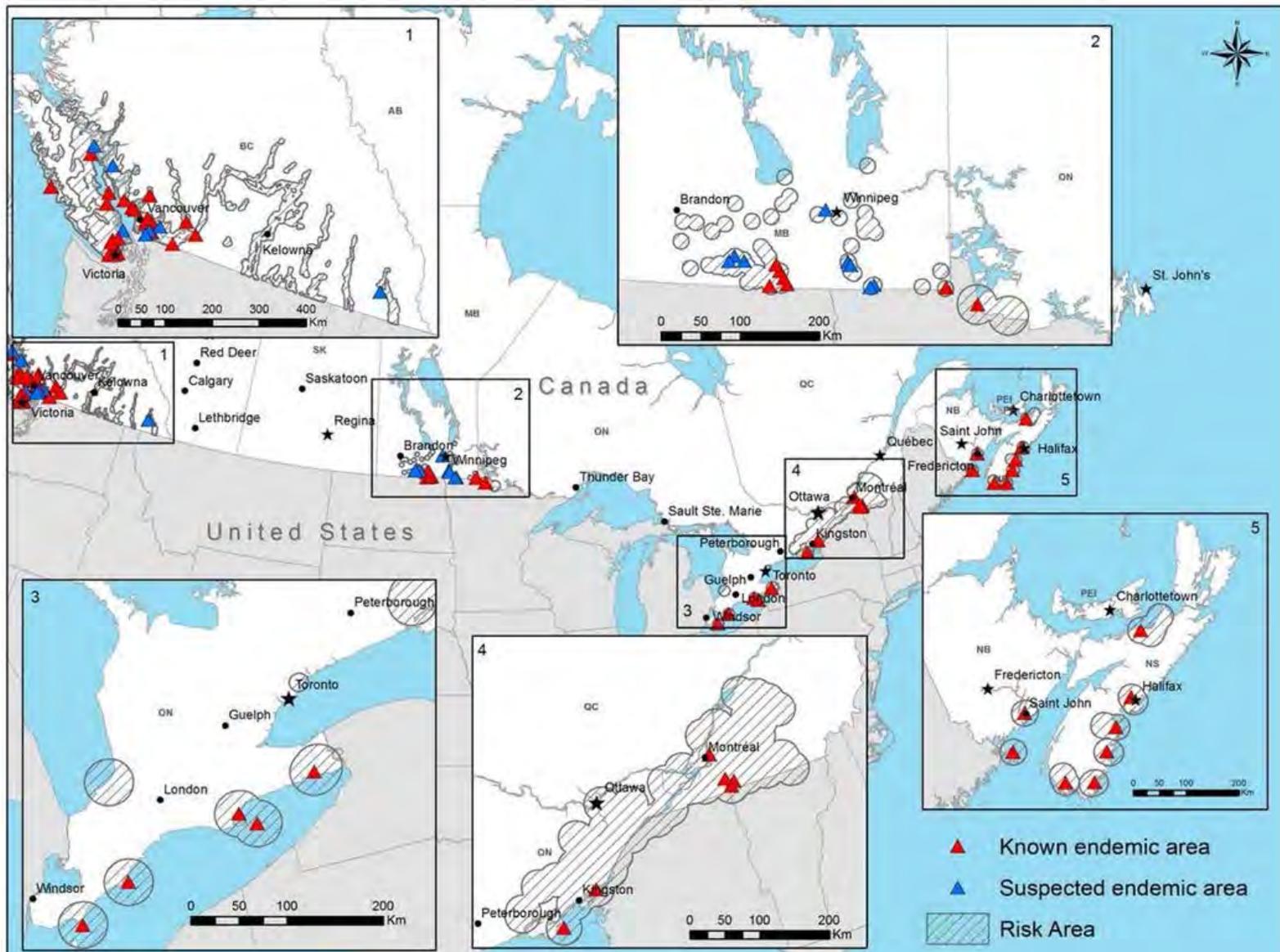
- Direct effects
 - temperate regions expands into previously colder regions
 - Shifts in migration patterns of host mammals and birds, particularly thrushes (Ogden 2008, 2015)
- Indirect
 - changes in patterns of interface between animal hosts and humans



Climate change, biodiversity, ticks and tick-borne diseases:
The butterfly effect

Filipe Dantas-Torres^{a, b}  

International Journal for Parasitology: Parasites and Wildlife
4 (2015) 452e461



Number of tick regions in Canada is increasing in some areas

Reference: Canada Communicable Disease Report CCDR Vol 40-5, March 2014

Number of Lyme cases in Canada increasing

Reported number of disease

2009: 144 cases

2010: 143 cases

2011: 266 cases

2012: 338 cases

2013: 682 cases

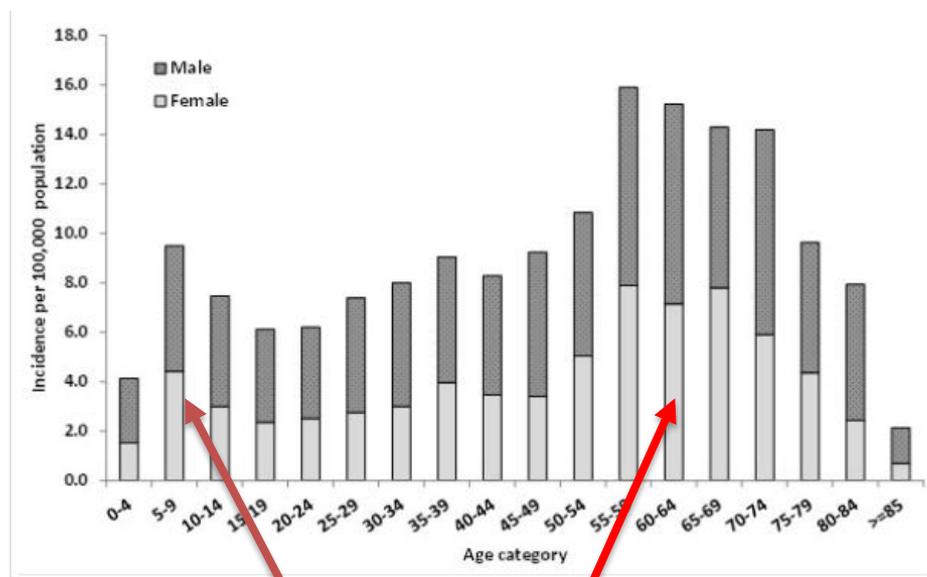
2014: 522 cases

2015: 917 cases

2016: 841 cases* - dataset not complete

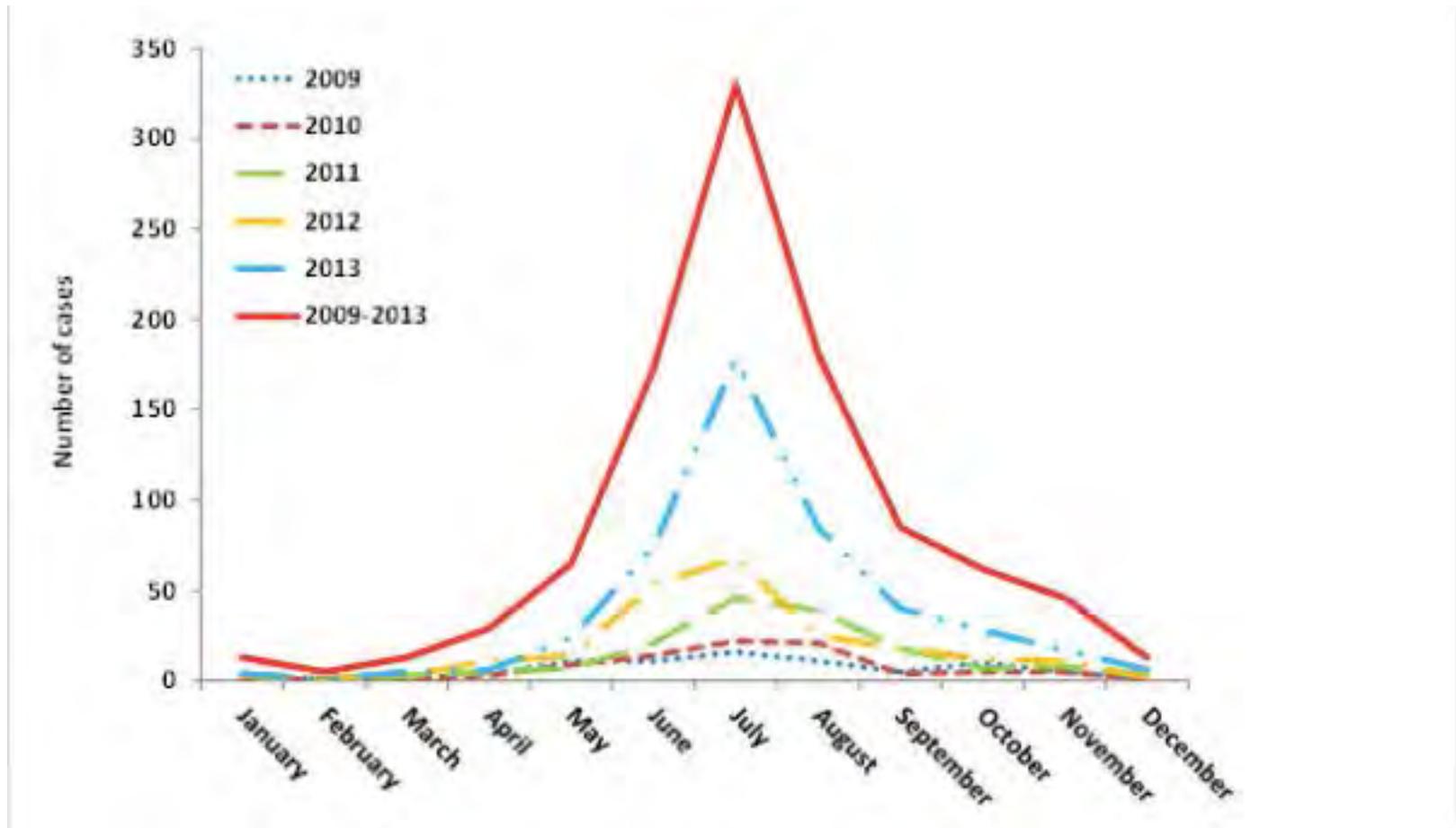
Reference: National Lyme Disease Surveillance in Canada 2013

Variations by age and gender



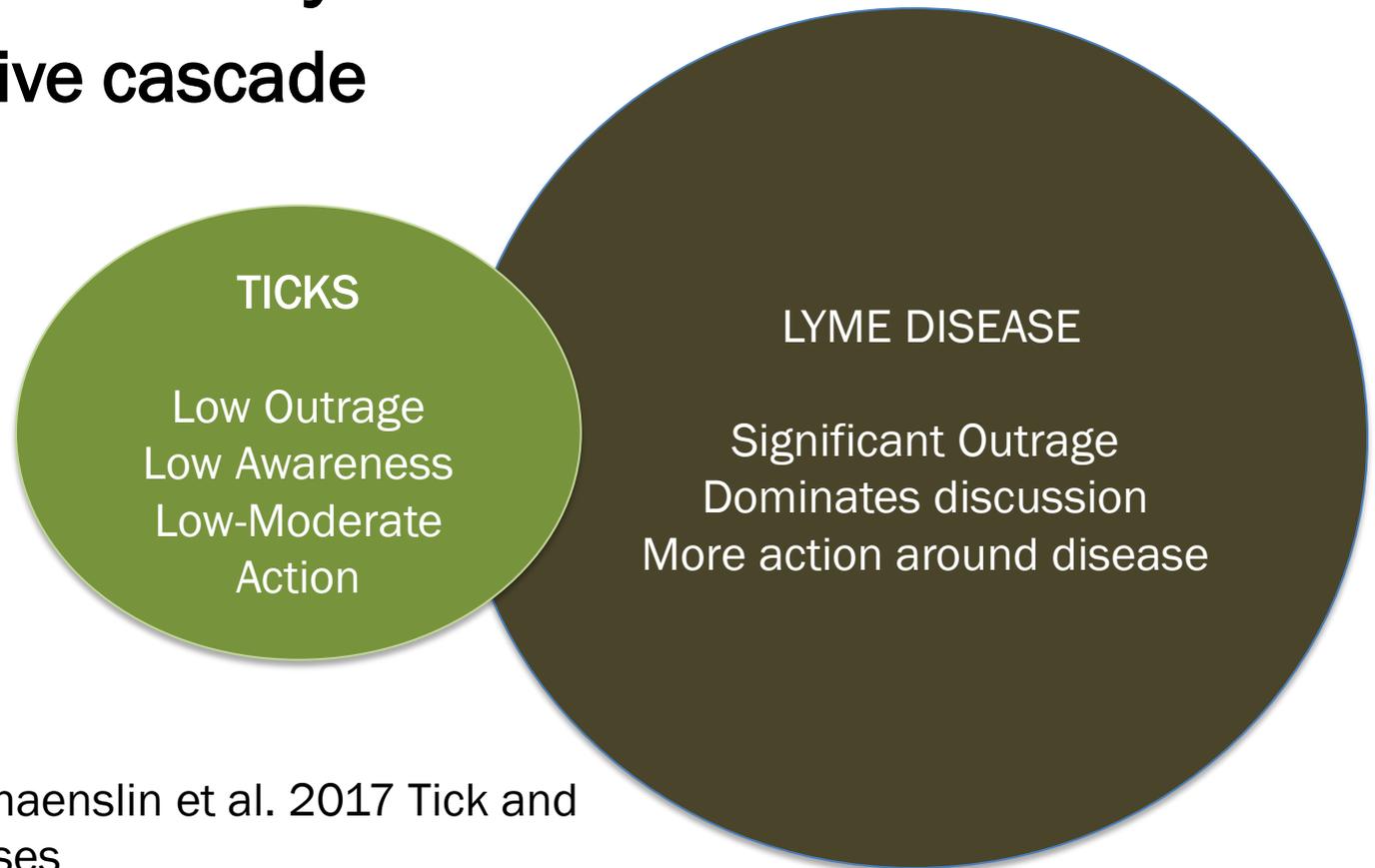
Children and adults over 55

Clear seasonality



Major communication challenges

- Talking about ticks often intersects with the “outrage” over Lyme Disease
 - Negative cascade



Reference: Aenishaenslin et al. 2017 Tick and Tick Borne Diseases

Public concern and media coverage are strongly correlated



Test for tick's Lyme disease bacteria now available in Canada

test to see whether it provides reliable information
Last Updated: May 17, 2016 7:09 AM PT



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Patients living in Lyme disease 'medical limbo' push for federal strategy

Lack of awareness, diagnosis and treatment by doctors a problem in Lyme disease battle: advocates

By Keith Doucette, The Canadian Press Posted: Sep 11, 2016 6:23 PM AT | Last Updated: Sep 11, 2016 6:23 PM AT



Donna Lugar, founder of the Nova Scotia Lyme Disease Support Group, is seen at home in Bedford, N.S. on Friday, Sept. 2, 2016. (Andrew Vaughan/THE CANADIAN PRESS)

UPDATED: Lyme disease sufferers devastated by federal government's action plan

Stay Connected All Canadians at risk from "ticking time bomb", patient groups say



Richmond Hill Liberal
By Kim Zarzour

When Shari Allen first went public with her battle with Lyme disease, she was very sick, but she had hope.

In 2015, the disease had upended her life, left her unable to work, her savings depleted, suffering from constant headaches and joint pain, but the Thornhill woman still believed this disease could be beaten.

RELATED STORIES

Lyme sufferers desperate for...

UPDATED: Dangerous ticks found in...

Two years later, she has lost more years of her life, lost her memory, friendships and relationships, lost her ability



WATCH NOW



Ticks

Infected ticks are linked to the growing threat of Lyme Disease. Patient groups have launched a petition to push the federal government to create a better national action plan.

Ticks

Lyme Disease

Why does outrage vary?

Less outrage	More outrage
Voluntary	Coerced/Involuntary
Natural	Industrial
Familiar	Exotic
Not dreaded	Dreaded
Chronic	Catastrophic
Knowable	Unknowable
Individually controlled	Controlled by others
Fair	Unfair
Trusted sources	Untrusted sources**
Responsive process	Unresponsive process

What to do?

- Reframe and discuss to prevention and ticks
 - not just Lyme - anaplasmosis, etc
- Acknowledge “many sides”
 - Ignoring statistics detrimental
 - Use strategies to reduce outrage
 - Empathy
 - Listening/Mirroring
- “Things are changing”- messaging okay
 - Acknowledge uncertainty
 - Be proactive rather than reactive
 - See what others are saying...

“By 2020, it’s estimated that 80% of the population in eastern Canada will live in an area with an established deer tick (also known as black legged tick) population.”

Highly cited
statistic
-wording varies

Some good news...

PHAC researchers suggest approximately 3-5 year gap between tick invasion in regions and the outbreaks of infected ticks (Ogden 2013)

Result- a window of opportunity during which public health could focus education before human cases can occur

Building connections between tick researchers and public health may be very useful

Targeting those at risk

- Education and video for children
 - Include video, school and camp activities



BC Centre for Disease Control

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Tick Talk

Welcome to Tick Talk British Columbia

We are encouraging everyone to be aware of disease-causing ticks and prevention of Lyme disease that can result from a tick bite.

Here are some resources you and your family can use to help you stay safe.

For grown ups,

You can read our [informative brochure](#) on Lyme Disease

View the [Lyme Disease Risk Areas Map](#)

For parents and children,

Join Raji and Alex as they present "Tick Talk for the Whole Family"

View the [child-friendly brochure](#)



For Dog owners...



CANADIAN VETERINARY
MEDICAL ASSOCIATION

L'ASSOCIATION CANADIENNE
DES MÉDECINS VÉTÉRINAIRES

Home < National Tick Awareness Month

NATIONAL TICK AWARENESS MONTH



March is just around the corner. Which means that, in many parts of the country, are about to "wake up" hungry and looking for a host to feed on – like your clients' p

It also means that it's time to gear up for the start of the second annual **National Tick Awareness Month (NTAM)**, a client-education initiative introduced last March by the Canadian Veterinary Medical Association (CVMA) in partnership with [Merck Animal Health](#)



Thanks to the enthusiastic response of the Canadian veterinary community to last year's inaugural campaign, a growing number of pet owners across the country are now aware of the risk of exposure to these parasites in early spring, and are taking measures to protect their pets and their families from these parasites and the diseases they carry.

The veterinary community may not b

Below you'll find the "top 10" questions submitted as well as the answers graciously provided by our guest experts.

Michael W. Dryden, DVM, MS, PhD
Professor of Veterinary Parasitology
Kansas State University

Robbin Lindsay, PhD
National Microbiology Laboratory
Public Health Agency of Canada

Scott Stevenson, BMSc, MSc, DVM
Locum
Thousand Islands Veterinary Services

1. HOW DOES AN AREA GET LABELED AS "ESTABLISHED" WITH BLACKLEGGED TICKS OR "ENDEMIC" FOR LYME DISEASE? WHO MAKES THIS DECISION?

For an area to be considered to have an established blacklegged tick population, all life stages of this parasite must be found for two consecutive years by active surveillance (i.e., going out into the woods and dragging for ticks). In addition, *Borrelia burgdorferi* must be found both in ticks (nymphs and adults) and circulating in the blood of small mammals (white-footed mice mostly) for an area to be considered endemic for Lyme disease.

The original criteria used to define an area as endemic were developed in 1991 by the federal government, in partnership with provincial public health authorities. Since there were relatively few blacklegged tick populations established in Canada at that time, a high standard was set to ensure that only areas with bona fide tick populations were included. However, this definition was a poor indicator of where ticks were emerging because it required a population to be present for at least two years before being considered established.

With the rapid expansion of blacklegged tick populations in Canada, a simpler and more cost-effective means of assessment was developed, based primarily on the outcomes of drag sampling.

<https://www.canadianveterinarians.net/documents/ntam-QandA>

Conclusion

- Certain regions are seeing increasing tick populations in Canada
- Most people focused more on Lyme and less on ticks
 - Lyme news too late for prevention!
- Young children and adults over 55 appear more at risk
- Tick surveillance may be helpful for targeting risk communication efforts