

RECENT LYME DISEASE RESEARCH IN SCOTLAND

Marianne James^{1,2}, L Gilbert¹, Ken Forbes² and Alan Bowman²

¹School of Biological Sciences, Zoology Building, University of Aberdeen, UK, ²The Macaulay Land Use Research Institute, Aberdeen, UK, • l.gilbert@abdn.ac.uk

WHAT IS LYME DISEASE?

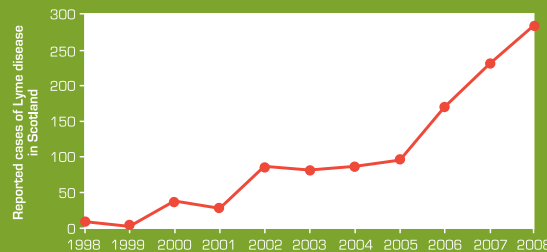
More strictly termed Lyme borreliosis, It is caused by bites from ticks infected by a spirochaete bacteria, *Borrelia burgdorferi*

Nymph stage of *Ixodes ricinus* tick. Remove tick with a tick tool as soon as possible



Symptoms can include a bullseye "erythema migrans" rash, followed by a highly variable flu-like illness. See a doctor! Most cases can be cured with antibiotics if diagnosed early".

WHAT IS THE RISK?



Cases are increasing in Scotland (data from Health Protection Scotland website)

Animals that carry/transmit *Borrelia* include birds (e.g. pheasants, blackbirds), voles, mice, sheep. Deer do **not** transmit *Borrelia* but are important hosts for ticks.



Therefore, we may be at most risk in woodland due to more transmission hosts – voles, mice, birds.

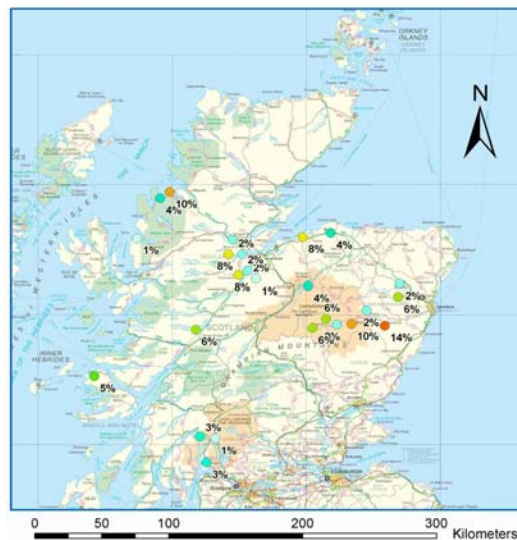
OUR RESEARCH ...

1. What proportion of ticks carry *Borrelia* in Scotland?

We collected ticks from a range of woodland sites around Scotland and analysed them for *Borrelia*:

We found, on average, 5% (range 1-14%) nymphs carry *Borrelia*.

Low and high *Borrelia* areas can be adjacent – it is very patchy, so it is difficult to predict which areas are "hotspots".



Borrelia Positive Tick Samples

Percent of samples



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2. Which people are most at risk?

Questionnaires from patients reveal that most people acquire Lyme borreliosis when doing recreation, and from ticks from woodlands.

CONCLUSION

- Lyme disease cases are increasing so it is important to be tick-aware.
- See a doctor for treatment if bitten by a nymph/adult and symptoms develop.
- Only 5% nymphs on average carry *Borrelia*, and many people never develop symptoms.
- So be aware, but do not be scare-mongered – keep the risk in perspective – enjoy the outdoors!
- Be particularly careful in woodlands, and constantly check for ticks.

