

Lyme Bacteria DNA Found in PA *Haemaphysalis longicornis* Tick

The study "*Borrelia burgdorferi* Ssensu Stricto DNA in Field-Collected *Haemaphysalis longicornis* Ticks, Pennsylvania, United States" was recently published in the Centers for Disease Control & Prevention (CDC) *Emerging Infectious Diseases*. Pennsylvania has the highest number of reported Lyme disease cases in the US.



Haemaphysalis longicornis
Ticks Photo courtesy of
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Researchers performed weekly surveillance activities throughout 38 Pennsylvania counties from May 1–September 6, 2019, capturing nymphal *I. scapularis* ticks (deer tick) and adult and nymphal *H. longicornis* ticks (Asian longhorned ticks). Sampled sites were mostly high-use public areas located in deciduous forests, considered to be high-risk for recreational and occupational tick exposure, and are *H. longicornis* and *I. scapularis* tick habitats.

Using real-time PCR testing, the researchers analyzed a total

of 263 questing Asian longhorned ticks from southeastern counties of Pennsylvania. One adult female tested positive for *Borrelia burgdorferi* sensu stricto, yielding a 0.4% infection rate. *I. scapularis* ticks collected during the same period and sites had infection rates for *B. burgdorferi* sensu lato ranging from 16.7% to 57.1%.

Previous Pennsylvania studies focused primarily on collecting and testing deer ticks – the primary vector of the Lyme disease-causing bacteria – and identified nearly 50% as carrying *Borrelia burgdorferi* sensu stricto. These initial surveillance efforts also recovered *H. longicornis* ticks.

H. longicornis was first discovered in New Jersey in 2017 and ever since the number of states that have reported confirmation of its presence has rapidly increased. The study's authors note that, "Because ecologic characteristics and the pathogen diversity and prevalence of *H. longicornis* ticks in the United States are understudied, potential epidemiologic risks there remain unknown." Continued monitoring of this invasive tick species is necessary to determine its impact on public health.

Read "*Borrelia burgdorferi* Sensu Stricto DNA in Field-Collected *Haemaphysalis longicornis* Ticks, Pennsylvania, United States" in *Emerging Infectious Diseases*.

Read New Study Finds *Haemaphysalis longicornis* Fails as Experimental Vector of Lyme Disease on LDA's website.

Read CDC Sounds Warning About Longicornis Tick on LDA's website.