

SUMMARY OF ACTIVE TICK SURVEILLANCE TESTING RESULTS 2022

A total of 2,433 ticks across multiple genera were collected from 40 pre-determined, publicly accessible sites in all 8 counties throughout Connecticut in 2022. Of the more than 2,400 ticks collected, 2,053 (84.4%) were *Ixodes scapularis* (deer or blacklegged tick), 253 (10.4%) were *Dermacentor variabilis* (American dog tick), 118 (4.9%) were *Amblyomma americanum* (lone star tick), 7 (0.38%) were *Haemaphysalis longicornis* (Asian longhorned tick), and only 2 (0.08%) was identified as *Haemaphysalis leporispalustris* (rabbit tick) (Table 1).

Table 1. Tick species distribution in the 2022 sampling year.

Scientific Name	Common Name	Total Number of Ticks Collected (%)
<i>Ixodes scapularis</i>	Deer or blacklegged tick	2,053 (84.4%)
<i>Dermacentor variabilis</i>	American dog tick	253 (10.4%)
<i>Amblyomma americanum</i>	Lone star tick	118 (4.9%)
<i>Haemaphysalis longicornis</i>	Asian longhorned tick	7 (0.38%)
<i>Haemaphysalis leporispalustris</i>	Rabbit tick	2 (0.08%)

A portion of the collected ticks were tested, and of the 461 adult female blacklegged ticks screened for infection, 411 (89%) tested positive for at least one pathogen, and 102 (22.1%) verified positive for two or more pathogens. Overall, more than half of all ticks, 251 (54.4%) tested positive for *B. burgdorferi* (Table 2).

Table 2: Statewide infection rate for adult female *Ixodes scapularis* in 2022.

Pathogen	Disease	% Adult female blacklegged ticks infected
<i>Borrelia burgdorferi</i>	Lyme disease	149 (32.3%)
<i>Borrelia miyamotoi</i>	Tick-borne relapsing fever	8 (1.7%)
<i>Babesia microti</i>	Babesiosis	82 (17.8%)
<i>Anaplasma phagocytophilum</i>	Anaplasmosis	68 (14.8%)
Powassan virus	Encephalitis and meningitis	2 (0.4%)
<i>B. burgdorferi</i> + <i>miyamotoi</i>	Lyme and Tick-borne relapsing fever	5 (1.1%)
<i>B. burgdorferi</i> + <i>microti</i>	Lyme and Babesiosis	45 (9.8%)
<i>B. burgdorferi</i> + <i>Anaplasma</i>	Lyme and Anaplasmosis	28 (6.1%)
<i>B. burgdorferi</i> + Powassan	Lyme and Encephalitis/meningitis	1 (0.2%)
<i>B. burgdorferi</i> / <i>miyamotoi</i> / <i>Babesia</i> / <i>Anaplasma</i> / <i>Powassan</i>	Lyme/TBRF/Babesiosis/Anaplasmosis/Encephalitis	23 (5.0%)

Of the 234 nymphal blacklegged ticks tested, a total of 104 (44.4%) tested positive for at least one pathogen, and a total of 24 (10.3%) tested positive for two or more pathogens. Overall, 69 (29.5%) ticks screened were positive for infection with *B. burgdorferi* (Table 3).

Table 3: Statewide infection rate for nymphal *Ixodes scapularis* in 2022.

Pathogen	Disease	% Nymphal blacklegged ticks infected
<i>Borrelia burgdorferi</i>	Lyme disease	45 (19.2%)
<i>Borrelia miyamotoi</i>	Tick-borne relapsing fever	2 (0.9%)
<i>Babesia microti</i>	Babesiosis	27 (11.5%)
<i>Anaplasma phagocytophilum</i>	Anaplasmosis	6 (2.6%)
Powassan virus	Encephalitis and meningitis	-----
<i>B. burgdorferi</i> + <i>miyamotoi</i>	Lyme and Tick-borne relapsing fever	-----
<i>B. burgdorferi</i> + <i>microti</i>	Lyme and Babesiosis	20 (8.5%)
<i>B. burgdorferi</i> + <i>Anaplasma</i>	Lyme and Anaplasmosis	3 (1.3%)
<i>B. burgdorferi</i> + Powassan	Lyme and Encephalitis/meningitis	-----
<i>B.burgdorferi/miyamotoi/Babesia/Anaplasma/Powassan</i>	Lyme/TBRF/Babesiosis/Anaplasmosis/Encephalitis	1 (0.4%)

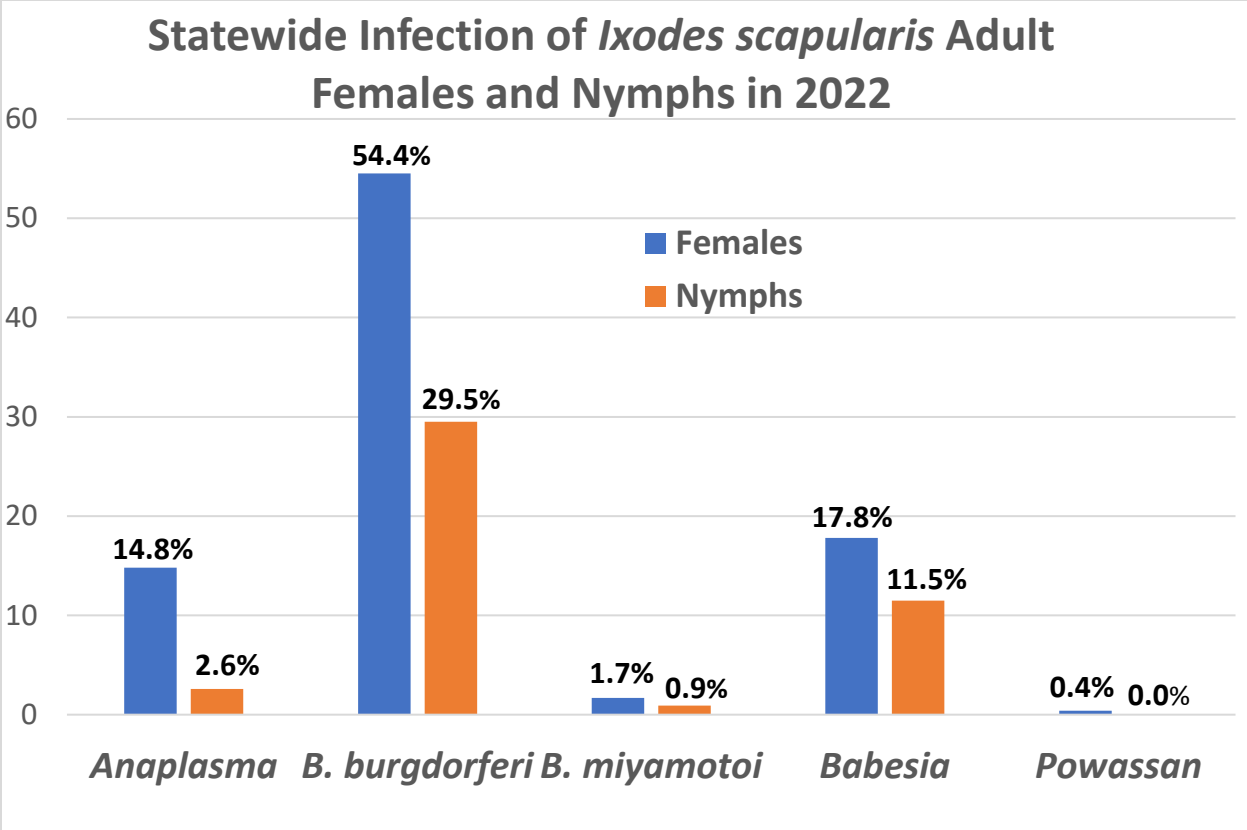


Figure 1: 2022 Statewide Infection Rates for Adult females and Nymphs