

SUMMARY OF ACTIVE TICK SURVEILLANCE TESTING RESULTS 2020

A total of 2,674 ticks across multiple genera were collected from 40 pre-determined, publicly accessible sites in all 8 counties throughout Connecticut in 2020. Of the more than 2,600 ticks collected, 2,477 (92.6%) were *Ixodes scapularis* (deer or blacklegged tick), 185 (6.9%) were *Dermacentor variabilis* (American dog tick), 11 (0.41%) were *Amblyomma americanum* (lone star tick), and only 1 (0.04%) was identified as *Haemaphysalis longicornis* (Asian longhorned tick) (Table 5).

Table 5. Tick species distribution in the 2020 sampling year.

| Scientific Name | Common Name | Total Number of Ticks Collected (%) |
|----------------------------------|--------------------------|--------------------------------------------|
| <i>Ixodes scapularis</i> | Deer or blacklegged tick | 2,477 (92.6%) |
| <i>Dermacentor variabilis</i> | American dog tick | 185 (6.9%) |
| <i>Amblyomma americanum</i> | Lone star tick | 11 (0.4%) |
| <i>Haemaphysalis longicornis</i> | Asian longhorned tick | 1 (0.04%) |

A portion of the collected ticks were tested, and of the 409 adult female blacklegged ticks screened for infection, a total of 276 (67.5%) tested positive for at least one pathogen, and a total of 45 (11.0%) verified positive for two or more pathogens. Overall, nearly half of all ticks, 198 (48.4%) tested positive for *B. burgdorferi* (Table 6).

Table 6: Statewide infection rate for adult female *Ixodes scapularis* in 2020.

| Pathogen | Disease | % Adult female blacklegged ticks infected |
|------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------|
| <i>Borrelia burgdorferi</i> | Lyme disease | 153 (37.4%) |
| <i>Borrelia miyamotoi</i> | Tick-borne relapsing fever | 11 (2.7%) |
| <i>Babesia microti</i> | Babesiosis | 35 (8.6%) |
| <i>Anaplasma phagocytophilum</i> | Anaplasmosis | 32 (7.8%) |
| Powassan virus | Encephalitis and meningitis | ----- |
| <i>B. burgdorferi</i> + <i>miyamotoi</i> | Lyme and Tick-borne relapsing fever | 5 (1.2%) |
| <i>B. burgdorferi</i> + <i>microti</i> | Lyme and Babesiosis | 18 (4.4%) |
| <i>B. burgdorferi</i> + <i>Anaplasma</i> | Lyme and Anaplasmosis | 16 (3.9%) |
| <i>B. burgdorferi</i> + <i>Powassan</i> | Lyme and Encephalitis/meningitis | ----- |
| <i>B. burgdorferi</i> / <i>miyamotoi</i> / <i>Babesia</i> / <i>Anaplasma</i> / <i>Powassan</i> | Lyme/TBRF/Babesiosis/Anaplasmosis/Encephalitis | 6 (1.5%) |

Of the 545 nymphal blacklegged ticks tested, a total of 179 (32.8%) tested positive for at least one pathogen, and a total of 27 (5.0%) tested positive for two or more pathogens. Overall, a total of 112 (20.6%) ticks screened were positive for infection with *B. burgdorferi* (Table 7).

Table 7: Statewide infection rate for nymphal *Ixodes scapularis* in 2020.

| Pathogen | Disease | % Nymphal blacklegged ticks infected |
|------------------------------------------------------------|------------------------------------------------|--------------------------------------|
| <i>Borrelia burgdorferi</i> | Lyme disease | 85 (15.6%) |
| <i>Borrelia miyamotoi</i> | Tick-borne relapsing fever | 6 (1.1%) |
| <i>Babesia microti</i> | Babesiosis | 37 (6.8%) |
| <i>Anaplasma phagocytophilum</i> | Anaplasmosis | 22 (4.0%) |
| Powassan virus | Encephalitis and meningitis | 2 (0.4%) |
| <i>B. burgdorferi</i> + <i>miyamotoi</i> | Lyme and Tick-borne relapsing fever | 6 (1.1%) |
| <i>B. burgdorferi</i> + <i>microti</i> | Lyme and Babesiosis | 13 (2.4%) |
| <i>B. burgdorferi</i> + <i>Anaplasma</i> | Lyme and Anaplasmosis | 8 (1.5%) |
| <i>B. burgdorferi</i> + Powassan | Lyme and Encephalitis/meningitis | ----- |
| <i>B. burgdorferi/miyamotoi/Babesia/Anaplasma/Powassan</i> | Lyme/TBRF/Babesiosis/Anaplasmosis/Encephalitis | ----- |

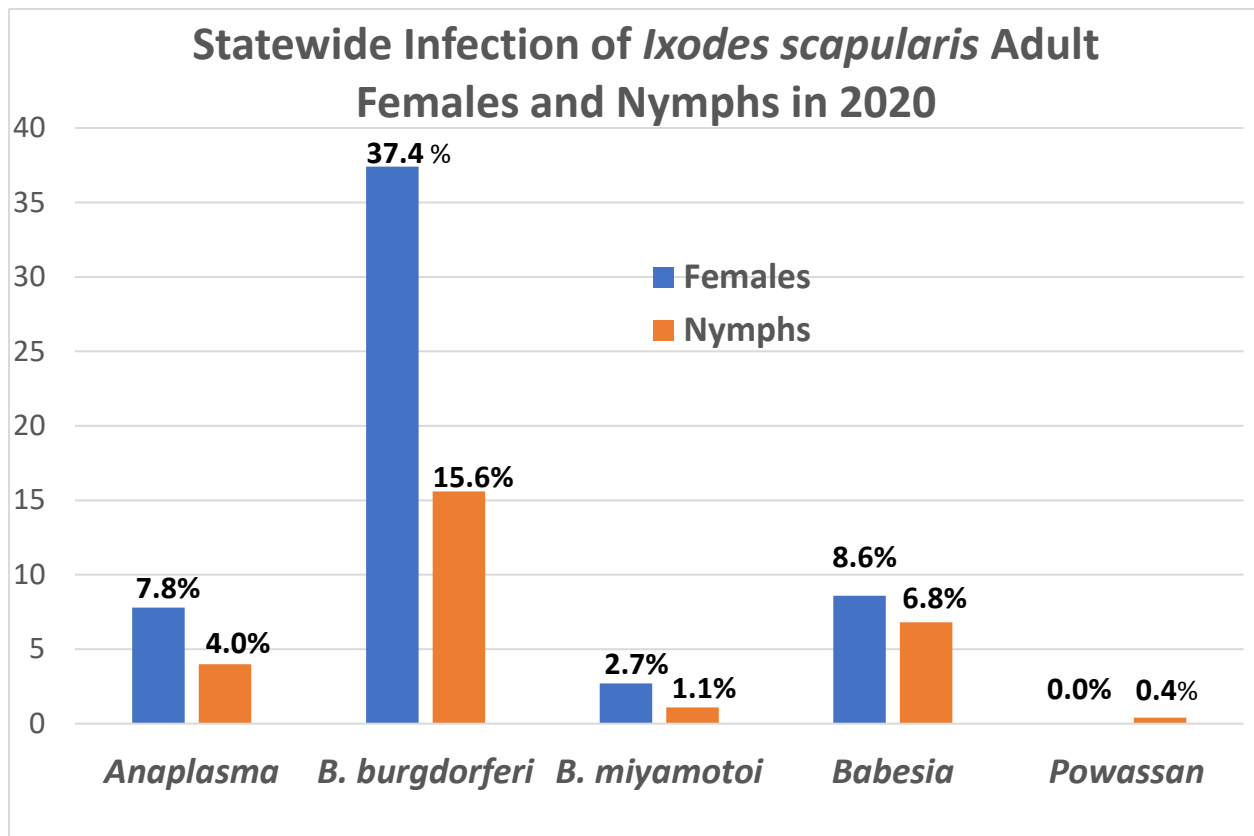


Figure 8: 2020 Statewide Infection Rates for Adult females and Nymphs.