

Detection of New Pathogens in Oklahoma Ticks

Recent surveillance of Oklahoma ticks has detected, not only spreading populations of *Ixodes scapularis* (blacklegged ticks) but also pathogens not previously detected including bacteria,

protozoans, and viruses that pose a serious risk to human health. A one-step multiplex real-time reverse transcription-PCR has detected tick-borne pathogens from a pool of 117 *I. scapularis* ticks collected from white-tailed deer. Three pooled samples were positive for *Borrelia miyamotoi* and five pooled samples of ticks tested positive for Deer Tick Virus (Powassan Virus lineage II). This is the first detection of these two pathogens in Oklahoma.



Blacklegged tick samples tested negative for *Anaplasma phagocytophilum*, *Borrelia burgdorferi*, and *Babesia microti*. This study provides the first report of *B. miyamotoi* and DTV detection in Oklahoma *I. scapularis* ticks. Authors present evidence that *I. scapularis* pathogens are present in Oklahoma and they recommend that further surveillance of *I. scapularis* in Oklahoma is Important.

Access to the full text article can be found here

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