

# West Virginia Biweekly Vector-Borne Surveillance Report

January 1, 2023 – September 14, 2023

## Introduction

The purpose of this report is to share descriptive surveillance data related to vector-borne disease activity with public health partners in West Virginia. All information in this report is considered provisional. For questions or comments, visit [oeps.wv.gov/arboviral/pages/default.aspx](https://oeps.wv.gov/arboviral/pages/default.aspx) or contact Eric Dotseth, State Public Health Entomologist, or Kimberly Dailey, Vector-Borne Epidemiologist @ (304) 558-5358, extension 2.

### Tick Surveillance

The following areas were West Virginia Tick Surveillance Program sites as of **August 18, 2023**. Below shows the density/1000 m<sup>2</sup> of *Ixodes scapularis* (Blacklegged deer tick) and *Amblyomma americanum* (Lone Star tick). *Ixodes scapularis* is the species responsible for the majority of tickborne disease (TBD) in West Virginia, including Lyme disease, anaplasmosis, and babesiosis. Lone star tick is the vector for Spotted Fever Group Rickettsioses (SFGR), ehrlichiosis, Southern Tick Associate Rash Illness (STARI), tularemia, and alpha-gal syndrome.

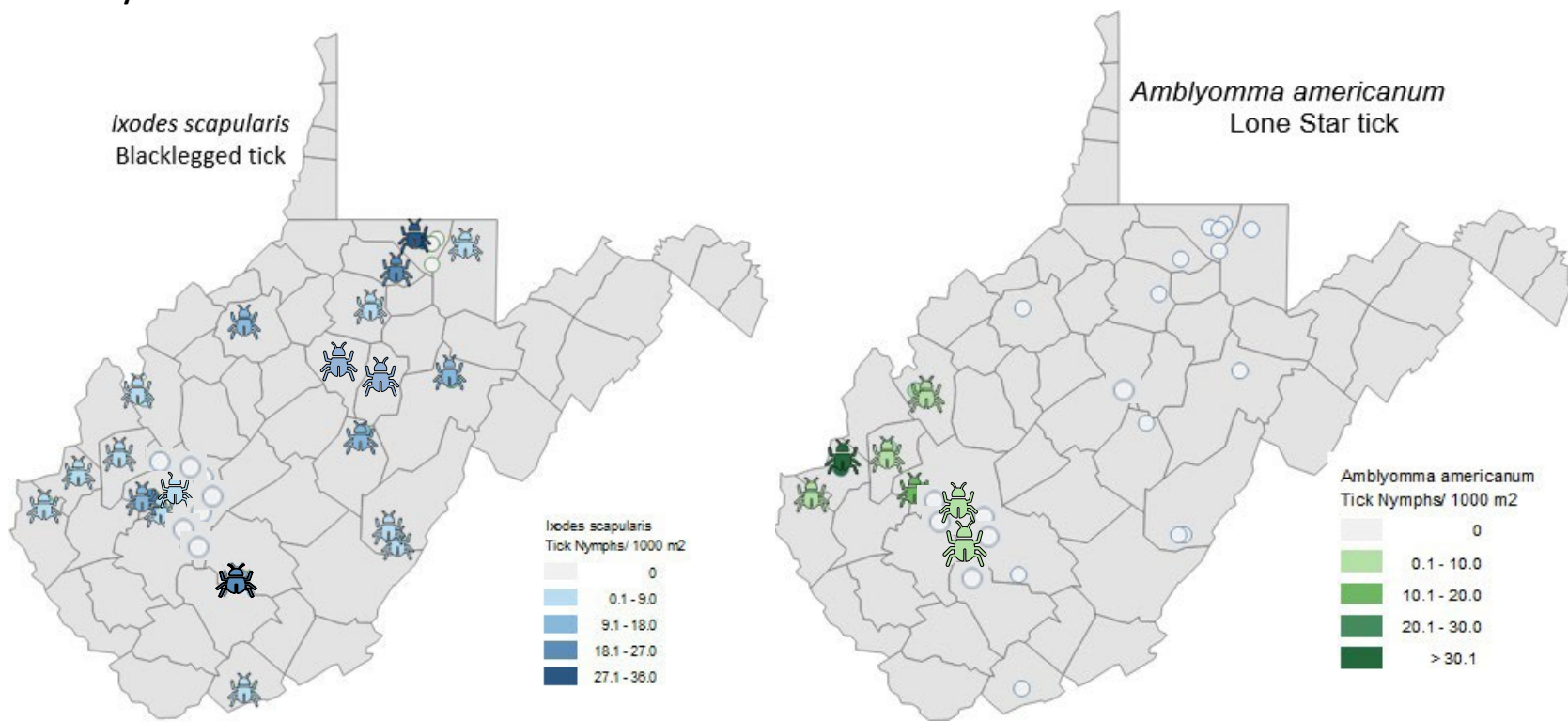
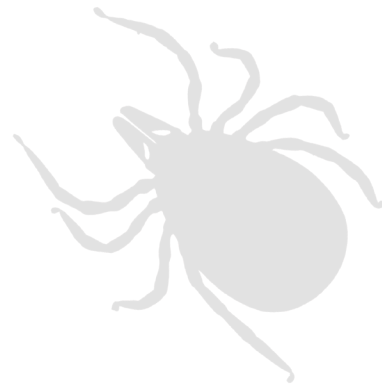


Figure 1. Density of *Ixodes scapularis* and *Amblyomma americanum*

## Tickborne Disease



### Human Surveillance

Through **September 14, 2023**, 1,052 confirmed and probable cases of TBDs were reported in West Virginia. Most cases were **Lyme disease** cases. Spotted fever group rickettsioses (SFGRs), Ehrlichiosis, and Anaplasmosis Cases were also reported as well as Tularemia and Babesiosis.

Table 1. Summary of human cases of tickborne diseases through September 14, 2023

TBD	Total # of Cases
Lyme disease	1,016
SFGR	8
Ehrlichiosis	15
Anaplasmosis	10
Tularemia	1
Babesiosis	1
Q Fever	1
<b>Total</b>	<b>1,052</b>

Table includes only confirmed or probable cases that have been reviewed and closed by the Vector-borne Disease Epidemiologist.

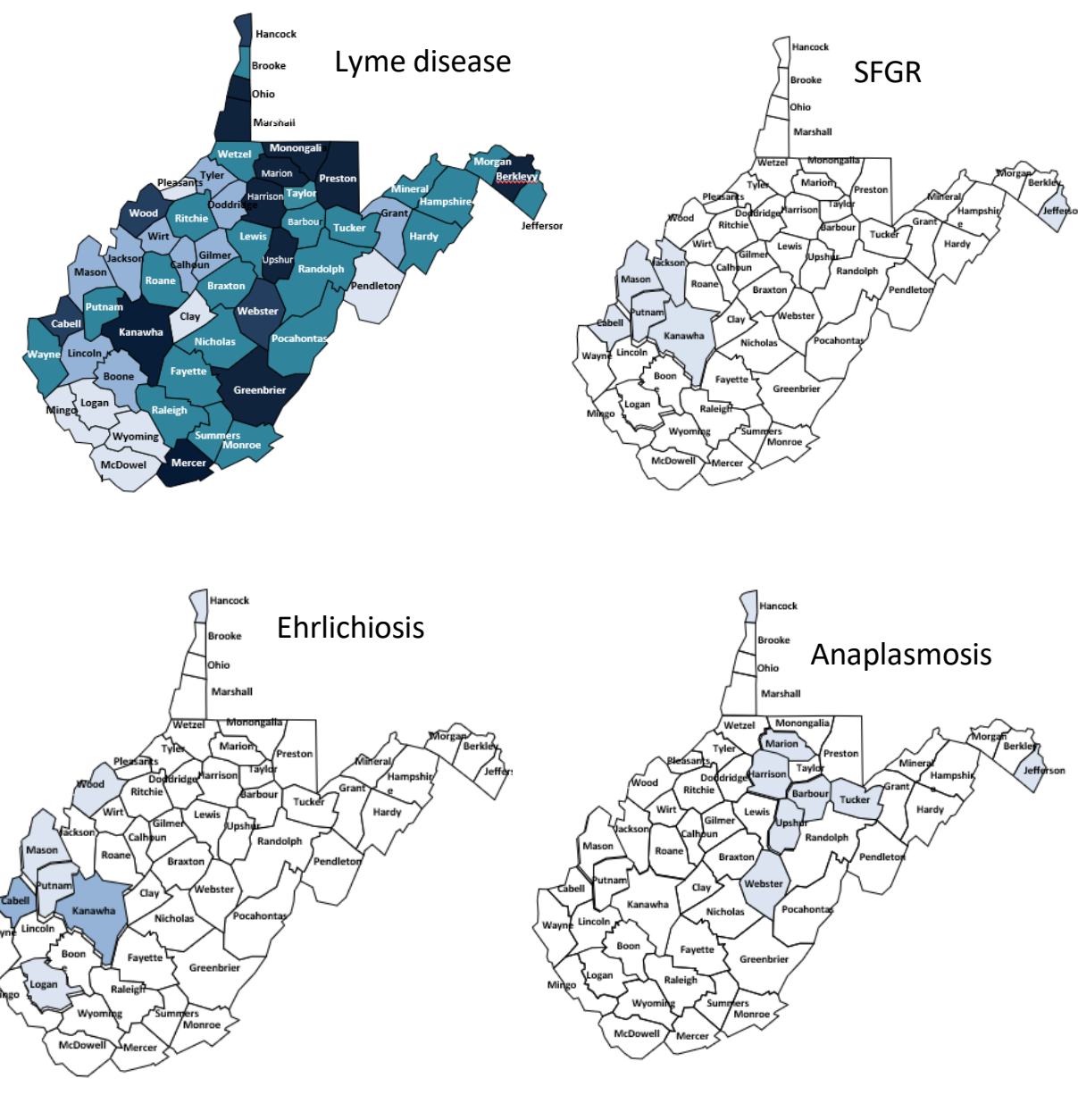


Figure 2. County-level distribution of Lyme disease, anaplasmosis, ehrlichiosis, and SFGR cases

## Mosquito Borne Disease



Surveillance for mosquito borne diseases in West Virginia focuses on four endemic mosquito borne diseases (MBD)—La Crosse virus (LAC), West Nile virus (WNV), St. Louis encephalitis virus (SLE), and eastern equine encephalitis virus (EEE) and travel-associated, or imported diseases, such as chikungunya, dengue fever, malaria, and Zika virus (ZIK).

Table 2. Summary of human cases of mosquito borne diseases through September 14, 2023.

Mosquito Borne Disease	Cases through 9-14-2023
● La Crosse encephalitis	4
● West Nile Virus infection	1
Malaria (Travel Associated)	3
<b>Total</b>	<b>8</b>

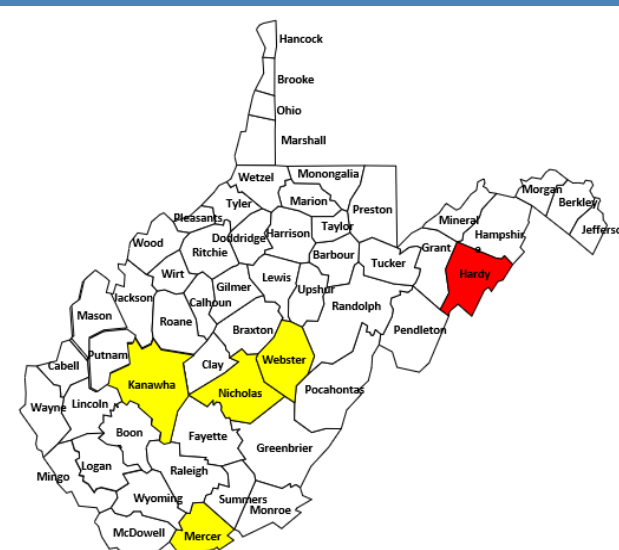


Figure 3. County-wide distribution of MBD