

West Virginia Vectorborne Disease Surveillance Report

JANUARY 1 – OCTOBER 9, 2025



The purpose of this report is to share descriptive surveillance data related to vectorborne disease activity with public health partners in West Virginia. All information in this report is considered provisional. For questions or comments, contact either Michael Abshire or Eric Dotseth at the Zoonotic Disease Program in the Division of Communicable Disease Epidemiology at 304-558-5358.

HUMAN SURVEILLANCE – MOSQUITOBORNE DISEASE

During the period of January 1 to October 9, 2025, there have been eight human cases of mosquito-borne disease reported (Table 1). All Dengue and Malaria cases were travel associated. Counties reporting mosquito-borne diseases are Berkeley (Malaria), Hampshire (West Nile), Jefferson (Malaria and West Nile), Marion (Dengue), Monongalia (Malaria), Raleigh (La Crosse) and Webster (La Crosse).

Table 1. Summary of human cases of mosquito-borne diseases for the current reporting period in West Virginia.

Mosquito-borne Disease	# Confirmed and Probable Human Cases ^a (Total through October 9, 2025)	Comments
Dengue	1	Travel associated – US Virgin Islands
La Crosse Encephalitis	2	Indigenous
Malaria	3	Travel associated – Kenya, Togo, and Peru
West Nile	2	Indigenous
Total		

^aTable includes confirmed and probable cases meeting case definition.

BIRD AND HORSE SURVEILLANCE – MOSQUITOBORNE DISEASE

During the period of January 1 to October 9, 2025, there have been no animal specimens tested for arboviral infection (Table 2).

Table 2. Summary of surveillance specimens submitted for dead birds and horses (serum) through September 5, 2025.

Table 2: Summary of surveillance specimens submitted for dogs and horses (all ages) through September 8, 2025.					
Type of Specimen	Total through October 9 th , 2025				Comments
	# specimens submitted	Arbovirus-positive ^a			
		WNV	SLE	EEE	
-	-	-	-	-	

^aNote: Horse specimens are tested for WNV and EEE only.

HUMAN SURVEILLANCE – TICKBORNE DISEASE

Through October 9, 2025, 3815 confirmed and probable cases of tickborne diseases (TBDs) were reported in West Virginia (Table 3). The majority of cases (96%) were Lyme disease cases (n=3663) (Figure 1). Several other tickborne diseases (TBD) were also reported (Figure 2). All of West Virginia's 55 counties have reported human TBD activity.

Table 3. Summary of human cases of tickborne diseases through October 9, 2025

Tickborne Disease	# Confirmed and Probable Cases through October 9, 2025	# of Counties Where Disease Reported
Alpha-Gal Syndrome	67	17
Anaplasmosis	47	20
Babesiosis	3	3
Ehrlichiosis	23	13
Lyme disease	3663	55
Spotted fever group rickettsiosis ^b	12	10
Total	3815	--

^aTable includes only confirmed or probable cases that have been reviewed and closed by the Vectorborne Disease Epidemiologist.

^bIncludes Rocky Mountain spotted fever.

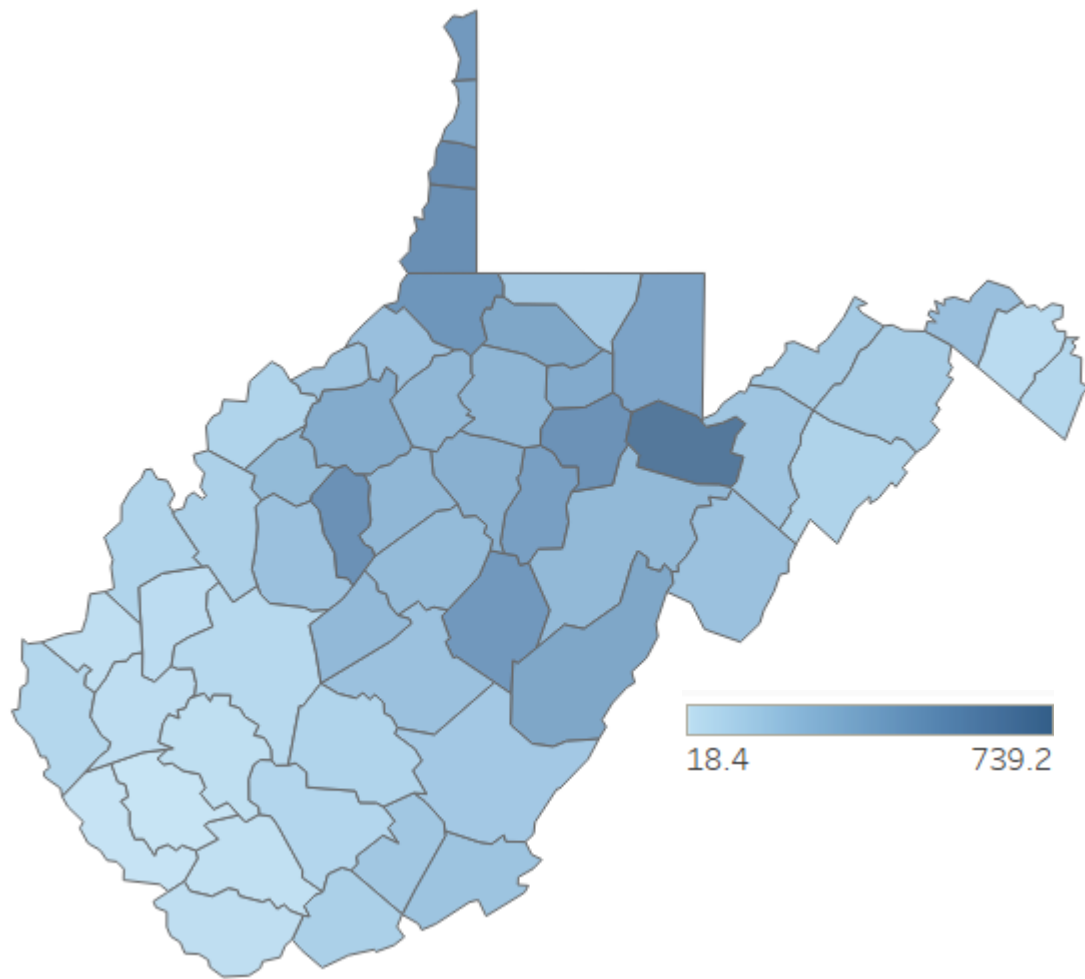


Figure 1. County incidence of probable Lyme disease cases (N=3663) through October 9, 2025, West Virginia.

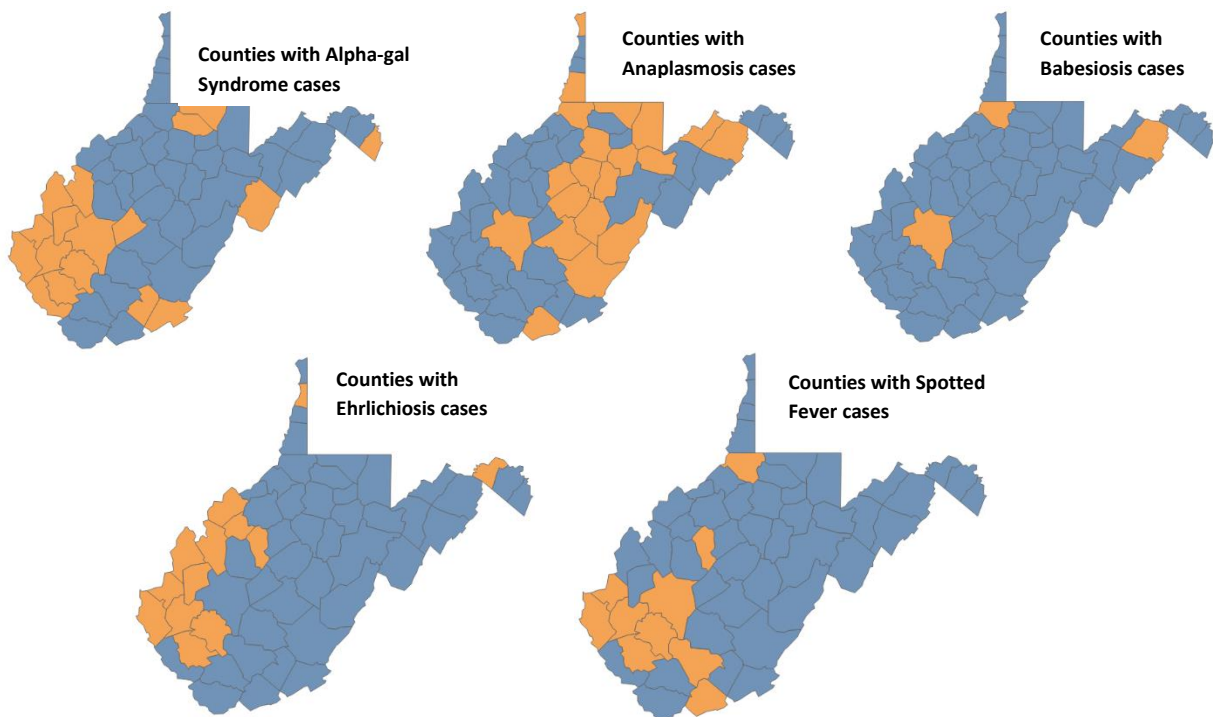


Figure 2. Counties with the following disease cases in orange as of October 9, 2024: alpha-gal syndrome, anaplasmosis, babesiosis, ehrlichiosis, and spotted fever group.

TICK SURVEILLANCE

During the period of January 21, 2025 to September 8, 2025, 13 localities in the following 11 counties have served as active tick surveillance sites: Cabell, Jackson, Kanawha, Mercer, Nicholas, Preston, Putnam, Roane, Upshur, Wayne and Wood counties (Figure 3, Figure 4). Through active tick surveillance and public submission to the Zoonotic Disease Program, five species of tick have been collected from January 21, 2025 to September 8, 2025 (Table 4).

Table 4. Summary of tick surveillance through September 8, 2025

Tick Species	Total through September 8 th , 2025			
	# collected	Life Stage		
		Larva	Nymph	Adult
<i>Amblyomma americanum</i>	5905	5527	295	83
<i>Amblyomma maculatum</i>	4	0	0	4
<i>Dermacentor variabilis</i>	41	0	0	41
<i>Haemaphysalis longicornis</i>	288	124	144	20
<i>Ixodes scapularis</i>	501	246	233	22
Total	6739	5897	672	170

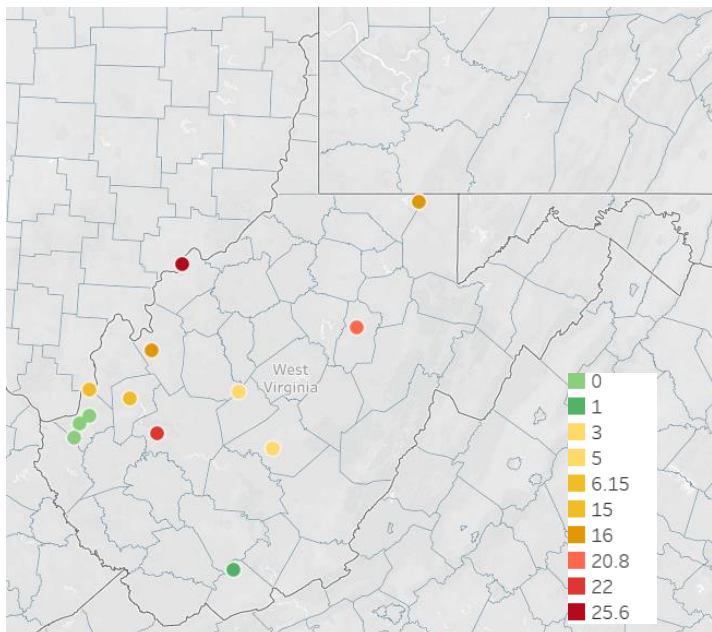


Figure 3. Tick collection sites (N = 13) in 11 counties, showcasing density of *Ixodes scapularis* per 1000m², or blacklegged tick nymphs. *Ixodes scapularis* transmits Anaplasmosis, Babesiosis, and Lyme Disease.

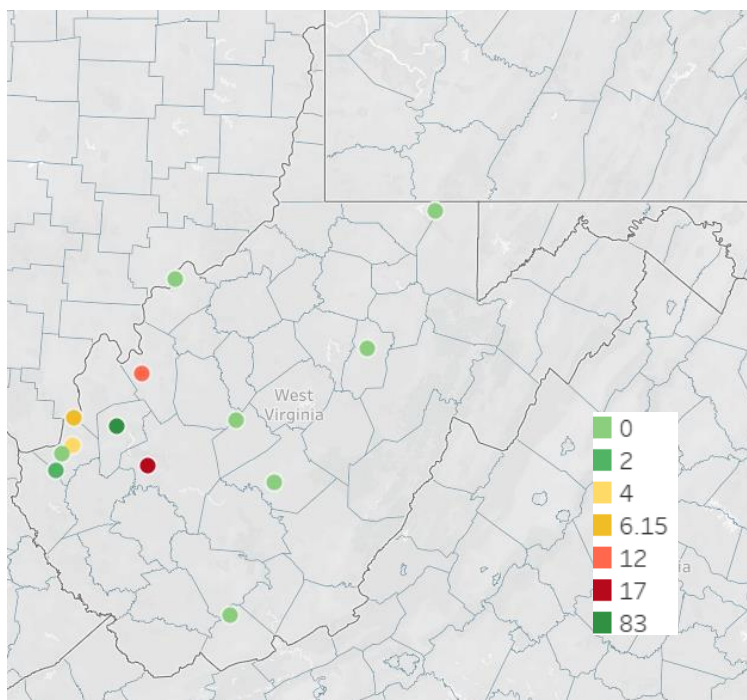


Figure 4. Tick collection sites (N = 13) in 11 counties, showcasing density of *Amblyomma americanum* per 1000m², or lone star tick nymphs. *Amblyomma americanum* transmits Alpha-gal Syndrome, Ehrlichiosis, and Spotted Fever Group Rickettsiosis.