

2024 Mosquito-borne Virus Surveillance Report

January 2025

The Vector-Borne Diseases Program tracks and responds to [mosquito-borne viruses](#), or arboviruses, in mosquitoes, animals, and humans. During the summer months, mosquitoes around the state are collected by the [Vermont Agency of Agriculture](#) and tested weekly for evidence of [West Nile virus \(WNV\)](#) and [Eastern equine encephalitis \(EEE\)](#) virus to understand the current risk to Vermonters and certain types of livestock such as horses and llamas.

Although rare, EEE is very serious. Approximately 30% of people who develop severe disease die, and many survivors have ongoing neurologic problems. WNV is the leading cause of mosquito-borne disease in the continental United States. Most people infected with WNV do not feel sick; about 1 in 5 people develop a fever and other symptoms and about 1 in 150 people develop a serious, sometimes fatal, illness.

If you need help accessing or understanding this information, contact AHS.VDHPublicCommunication@vermont.gov.

Mosquito-borne virus surveillance by the numbers in 2024

- **88 towns with mosquito traps**
- **4,442 mosquito pools tested**
- **64 WNV positive mosquito pools**
- **86 EEE virus positive mosquito pools**
- **2 human cases and 2 animal cases of EEE**
- **1 human case of WNV**

2024 Surveillance Season Summary

- Mosquitoes were collected from 119 trap sites in 88 towns during June 10–October 18 (19 weeks)
- 64 mosquito pools* tested positive for WNV and 86 mosquito pools* tested positive for EEE
- Two cases of EEE in horses were reported from Addison and Orleans Counties
- Two cases of EEE in humans were reported from Chittenden County; one person died
- One human case of WNV was reported in Chittenden County

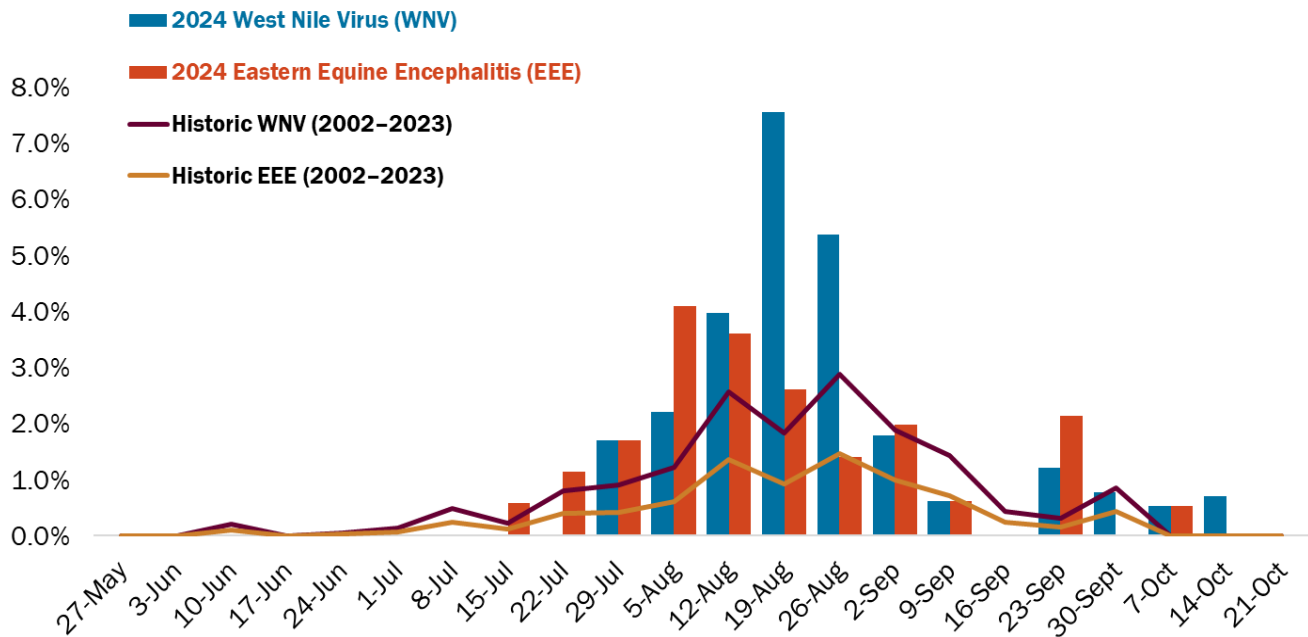
*A mosquito pool is a group of 1-50 mosquitoes of the same species, collected at the same trap location, on the same date.



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Historically, the percentage of mosquito pools* that test positive increases in late July and peaks in late August. In 2024, WNV and EEE virus detections in mosquitoes were above the historic average.



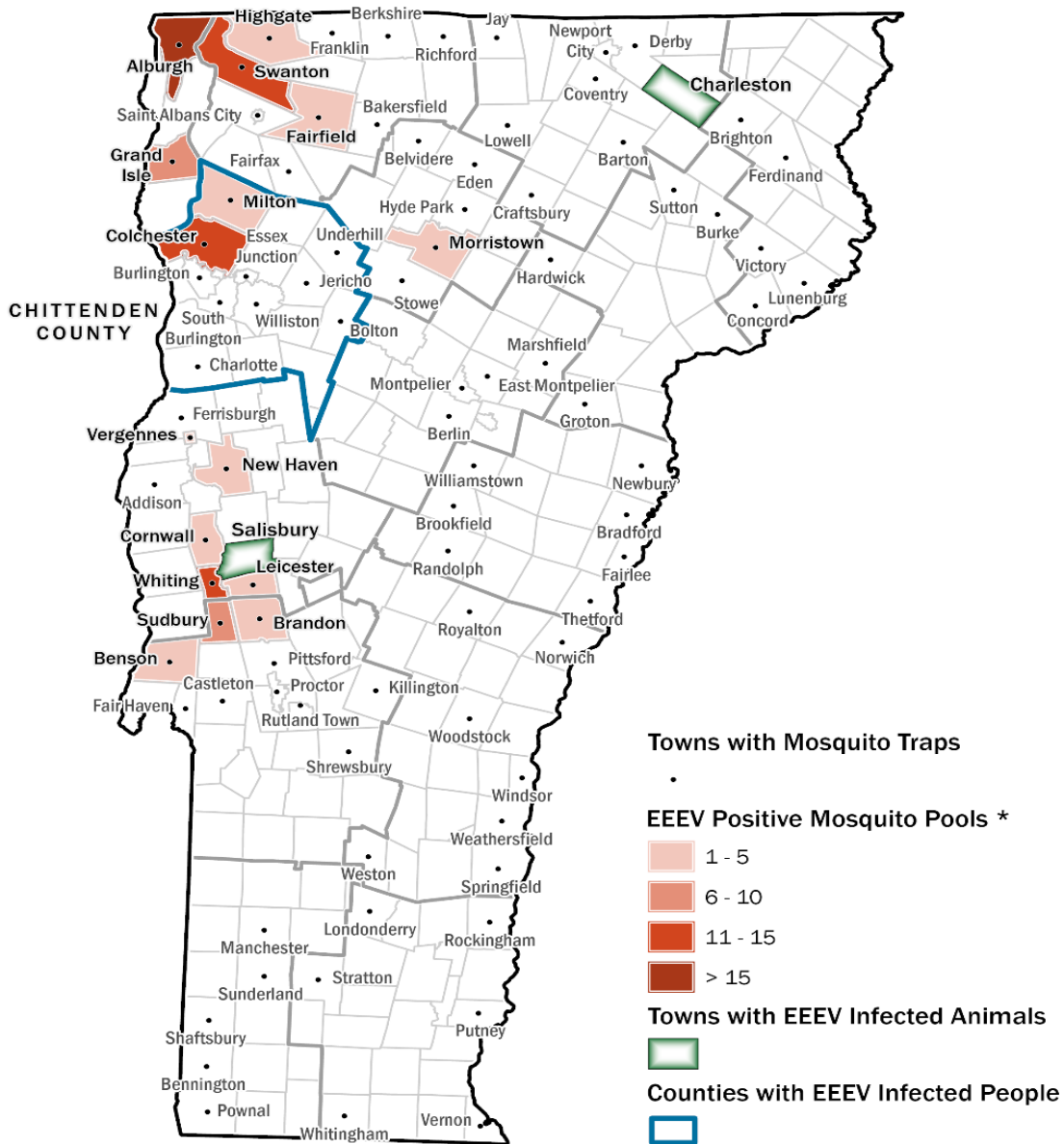
*A mosquito pool is a group of 1-50 mosquitoes of the same species, collected at the same trap location, on the same date.

Eastern Equine Encephalitis (EEE) Virus

- EEE virus activity in Vermont clusters near acidic, hardwood swamps, most commonly in Franklin, Grand Isle, Addison, and northern Rutland counties. EEE virus has caused human or animal illnesses in Chittenden, Orleans, Franklin, Rutland, and Addison counties.
- EEE was first detected in Vermont in 2011. Since 2020, Vermont has focused more mosquito resources on EEE virus surveillance.
- In 2023, EEE virus was detected in mosquito pools collected in Alburgh, Swanton, and Highgate. An unvaccinated horse from Swanton died after being infected with EEE virus. These were the first detections of EEE virus in Vermont since 2015 and resulted in enhanced surveillance in these areas of the state.
- In 2024, there were two human cases of EEE reported in Chittenden County – the first human cases in Vermont since 2012.

EEE virus was detected primarily in Northwestern Vermont in 2024

- In 2024, resting box traps that target the primary EEE vector, *Culiseta melanura*, were set at 91 wetland locations in 79 towns across the state.
- 86 mosquito pools from 16 towns tested positive for EEE.
- Two cases of EEE in horses were reported from Salisbury (Addison County) and Charleston (Orleans County). Two human cases of EEE were reported in Chittenden County, including one fatality.



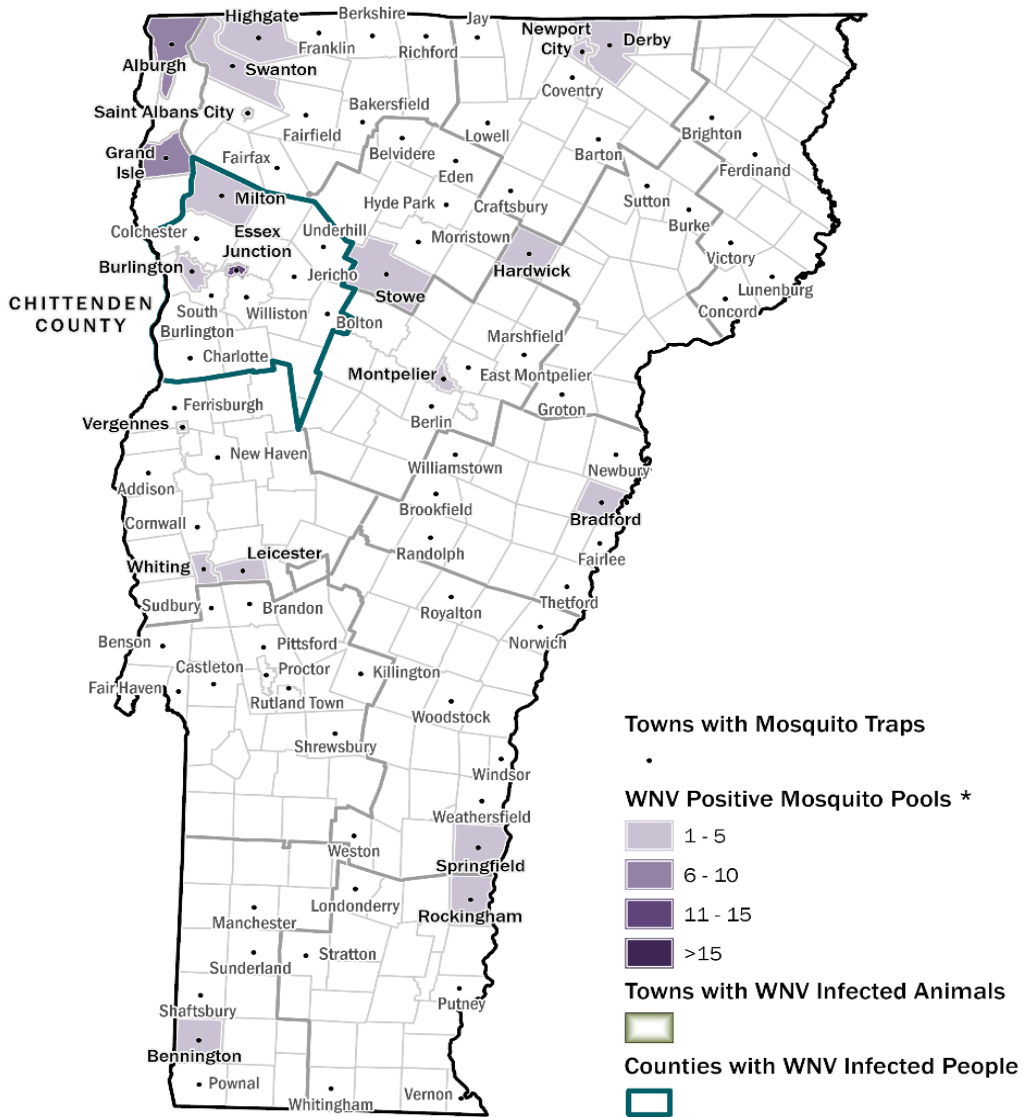
*Trap sites detect mosquitos that carry WNV and EEEV

West Nile Virus (WNV)

- Since 2002, WNV has been detected in birds, mosquitoes, people, or animals in all counties of Vermont.
- Currently, the risk for WNV is considered widespread in the state.

WNV was detected throughout Vermont in 2024

- 64 mosquito pools from 20 towns tested positive for WNV.
- One human case of WNV was reported in Chittenden County.

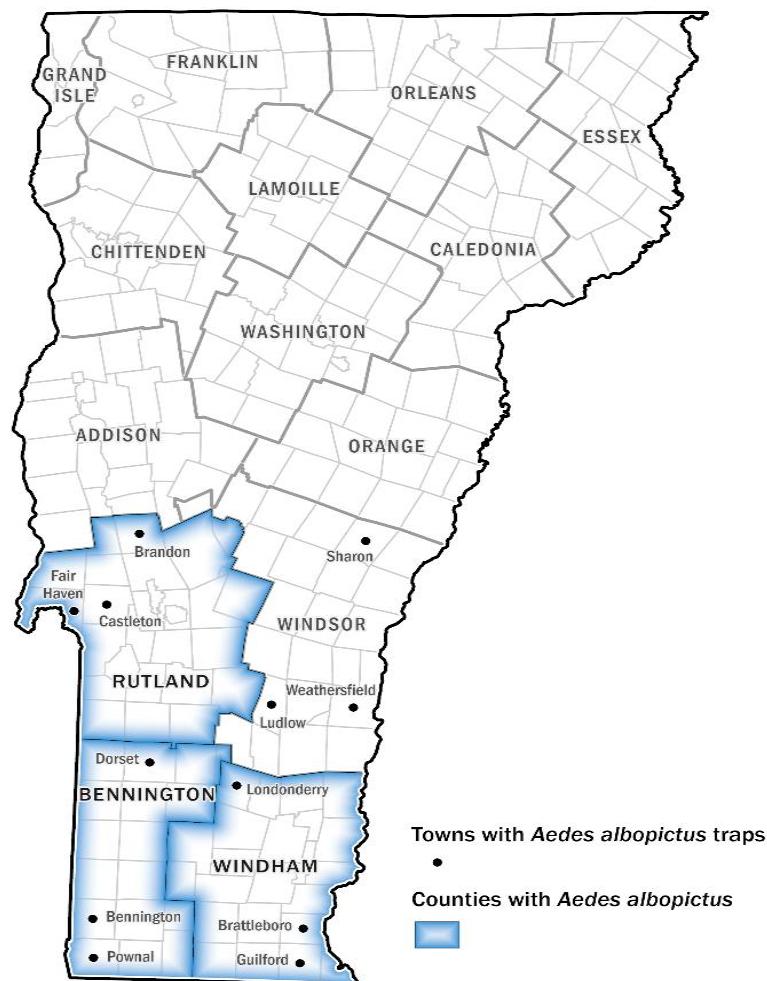


*Trap sites detect mosquitoes that carry WNV and EEEV

Aedes albopictus Surveillance

Invasive *Aedes albopictus* mosquitoes were found in Rutland, Bennington, and Windham Counties in 2024

- The *Aedes albopictus* (Asian Tiger) mosquito can transmit Zika, dengue, and other non-endemic arboviruses and has an estimated geographic range that includes southern Vermont.
- In 2024, 18 trap sites in 12 towns targeted the *A. albopictus* mosquito. *A. albopictus* mosquito eggs were found at collections from Rutland, Bennington, and Windham Counties.
- After six consecutive years of detections at a single trap site in Windham County, spanning several weeks of detection each year, *A. albopictus* is considered established (locally-reproducing) at this location.



Key takeaways

- People should take steps to avoid mosquito bites, especially in late July through September.
- [Take precautions](#) to prevent mosquito bites and reduce mosquito breeding sites around your home.
- People who engage in outdoor work and recreational activities, especially near wetlands and swamps and in areas of recent EEE virus activity, are at increased risk of EEE infection.
- Horse owners should consult with their veterinarians about vaccinating their animals for EEE, West Nile and other viruses spread by infected insects.