

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.

During the 2023 Arbovirus Surveillance season:

- Mosquitoes were collected from 110 trap sites in 90 towns during June 25–October 21 (17 weeks).
- Eleven mosquito pools* tested positive for WNV and fourteen pools* tested positive for EEE in 2023.
- Historically, the percentage of mosquito pools that test positive for an arbovirus increases in early August and peaks in late August to mid-September.
- One animal case of WNV and one animal case of EEE were reported in 2023, both in Franklin County.

Mosquito Surveillance by the Numbers

Mosquito Pools Tested

4,031

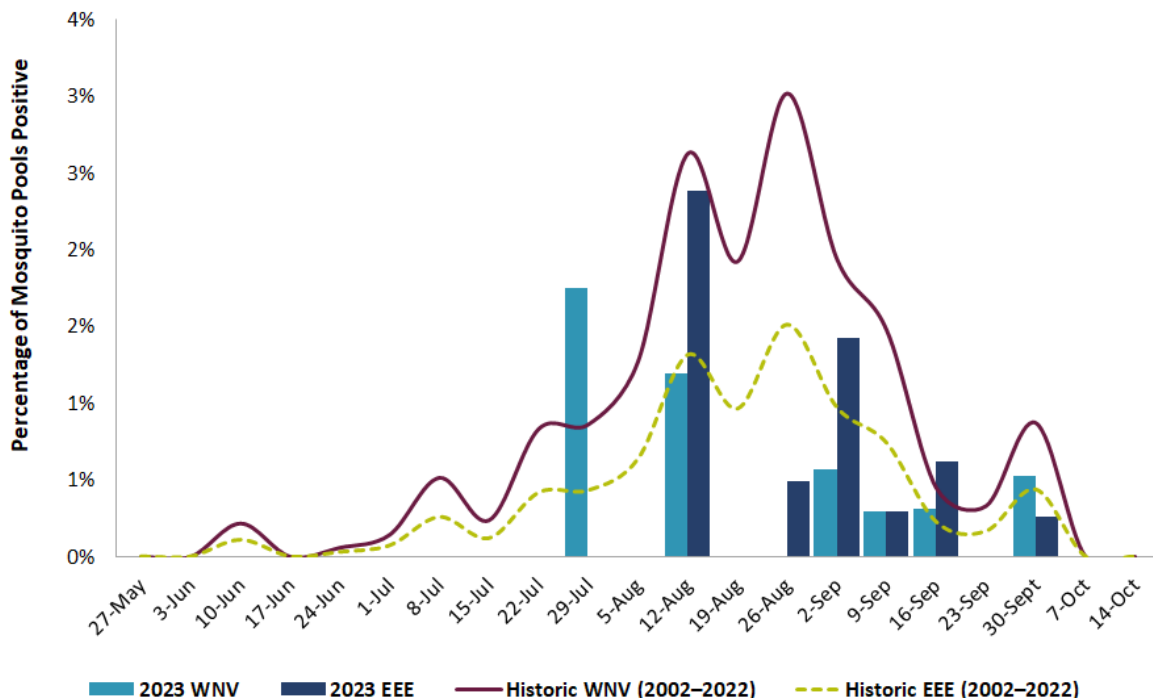
WNV Positive Pools

11

EEE Positive Pools

14

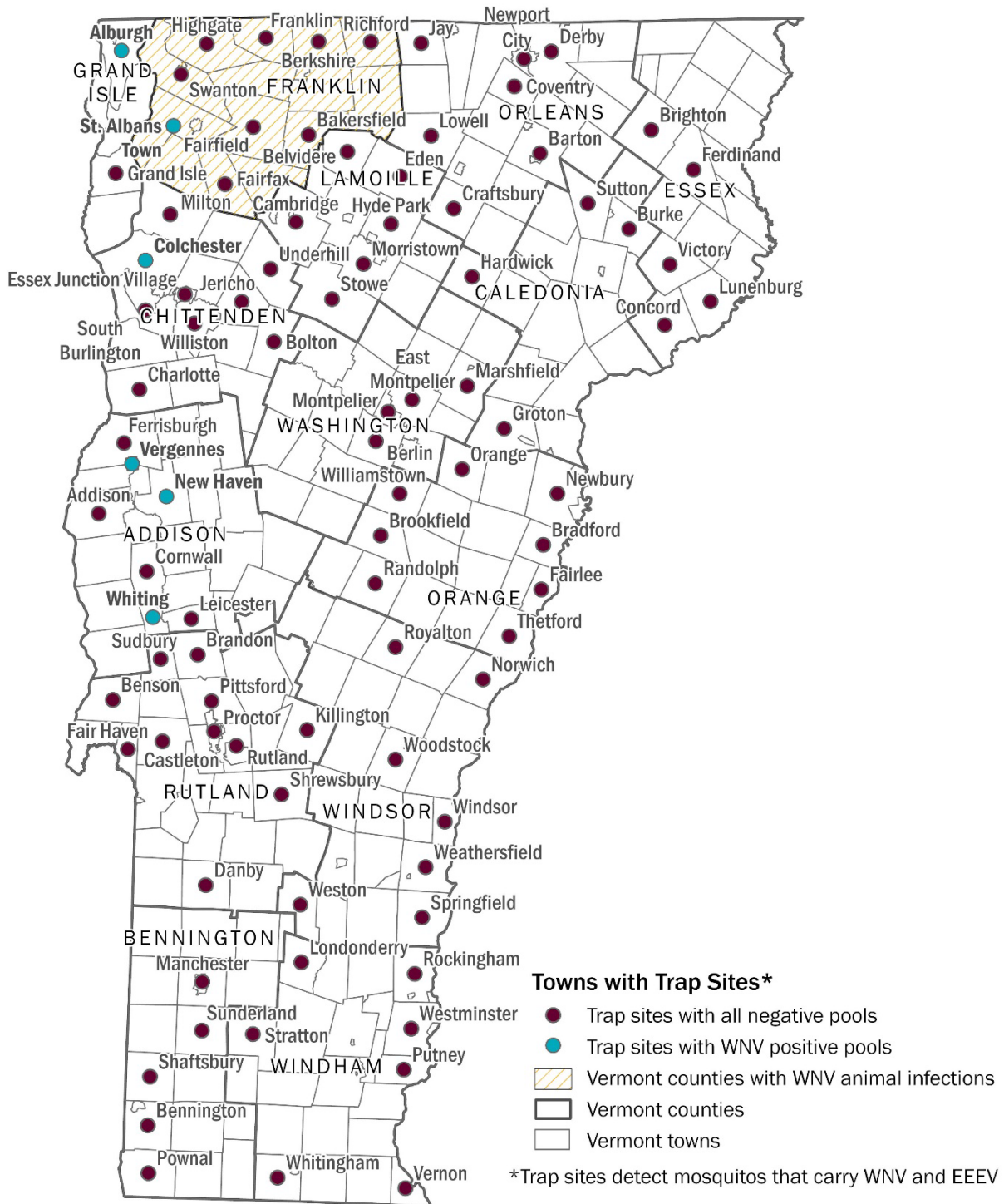
Eleven mosquito pools collected in 2023 tested positive for WNV and fourteen pools tested positive for EEE.



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

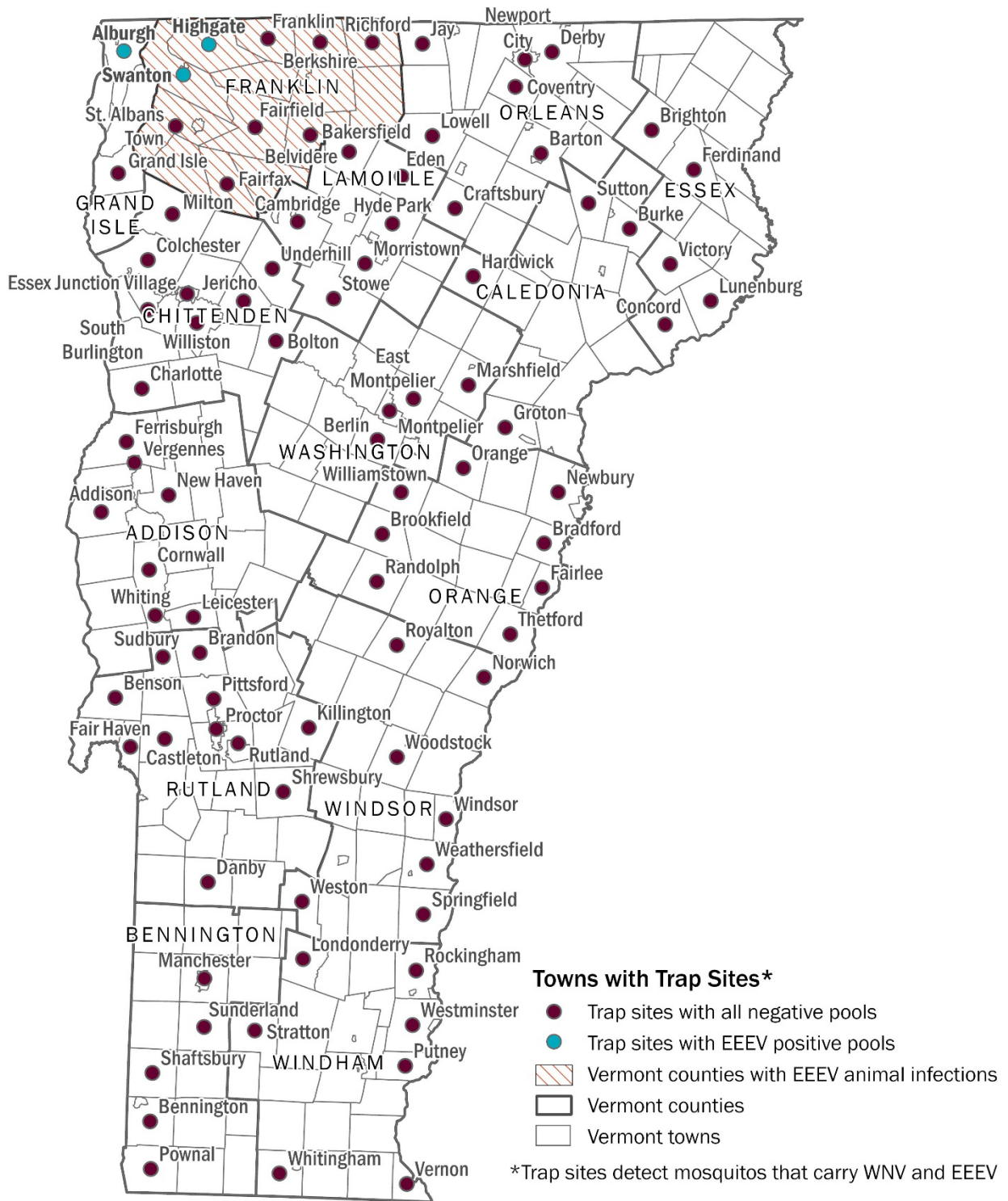
2023 Mosquito-borne Virus Surveillance Report

Eleven mosquito pools collected from six towns (Alburgh, Colchester, New Haven, St. Albans, Vergennes, and Whiting) and one horse from Franklin County tested positive for **WNV** in 2023.



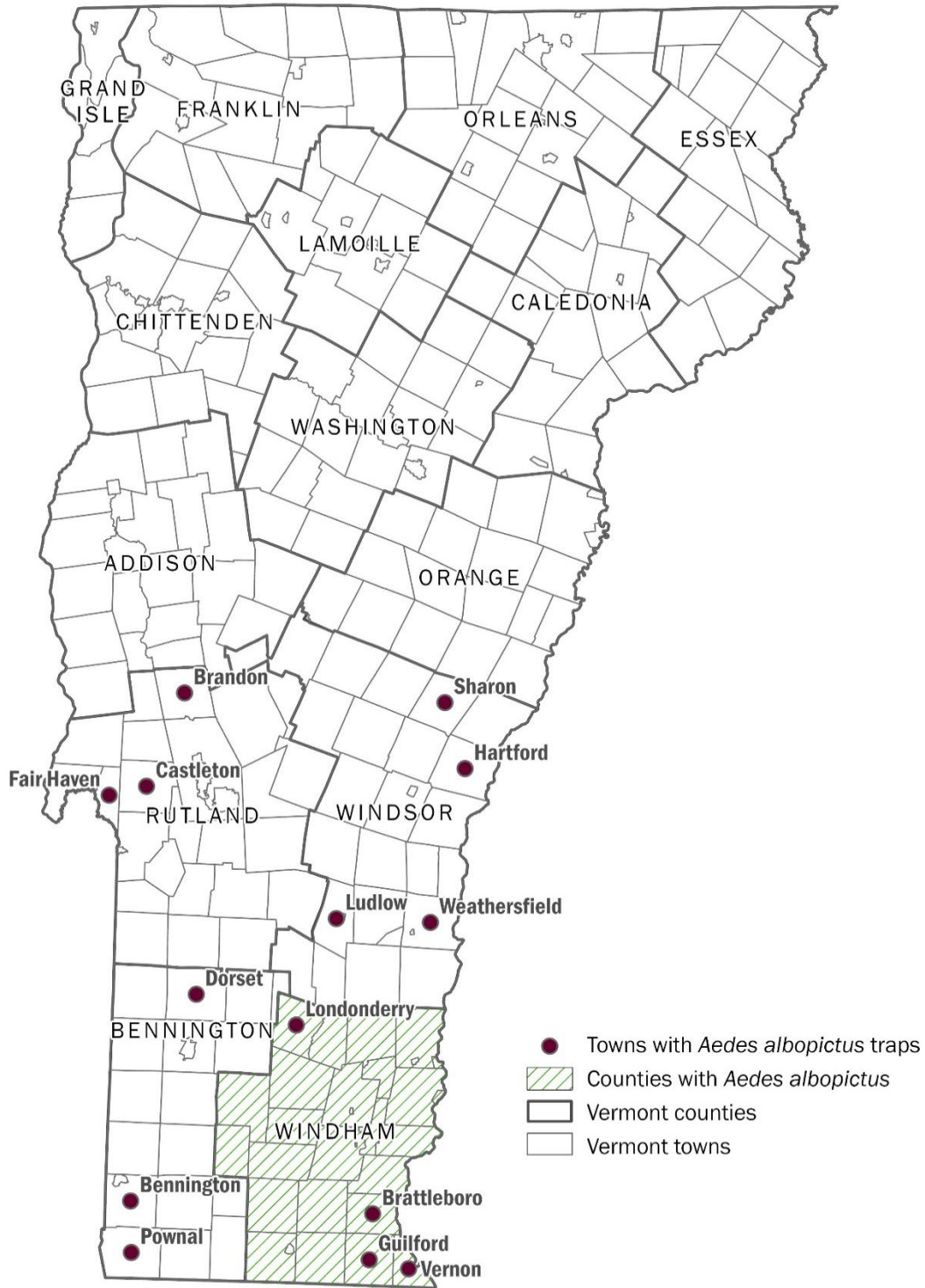
2023 Mosquito-borne Virus Surveillance Report

Fourteen mosquito pools collected from three towns (Alburgh, Highgate, and Swanton) and one horse from Franklin County tested positive for **EEE virus** in 2023.



2023 Mosquito-borne Virus Surveillance Report

Invasive *Aedes albopictus* mosquitoes were found in Windham County in 2023 – this species is now considered established at this location.



Assessing the Risk of Arboviral Disease in Vermont

West Nile Virus

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.

Eastern Equine Encephalitis Virus

EEE virus activity in Vermont clusters near acidic, hardwood swamps, most commonly in Franklin, Grand Isle, Addison, and northern Rutland counties. Since 2020, Vermont has focused more mosquito resources on EEE surveillance. In 2023, resting box traps that target the primary EEE vector, *Culiseta melanura*, were set at 93 wetland locations in 82 towns across the state.

In 2023, EEE virus was detected in mosquito pools collected in Alburgh, Swanton, and Highgate, and 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.

EEE was first detected in Vermont in 2011. There have been no human cases of EEE in Vermont since 2012 and EEE has been reported in six animals in Vermont. EEE virus has caused human or animal illnesses in Franklin, Rutland, and Addison counties.

Aedes albopictus Surveillance

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 2023, 18 trap sites in 14 towns targeted the *A. albopictus* mosquito. *A. albopictus* mosquito eggs were found at collections from Windham County for a total of four weeks (weeks 1, 2, 7, and 8) during the 10-week survey.

After four 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

- In Vermont, mosquito season begins in the spring, but does not typically pose a health risk until the summer months.
- [Take precautions](#) to prevent mosquito bites and reduce mosquito breeding sites around your home.
- Given recent EEE virus detections, people living and working in Franklin and Grand Isle Counties are advised to take extra precautions to avoid mosquito bites.
- Horse owners should consult with their veterinarians about vaccinating their animals for EEE, West Nile and other viruses spread by infected insects or ticks.