

# **2020 Arbovirus Surveillance Report**

## November 2020

**Mosquito Surveillance** 

by the Numbers

**Mosquito Pools Tested** 

1,121

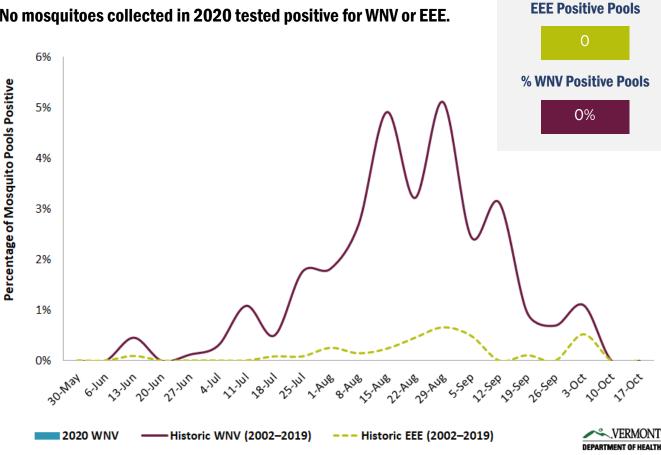
**WNV Positive Pools** 

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The Vector-Borne Diseases Program tracks and responds to mosquito-borne viruses, or arboviruses, in mosquitos, 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.

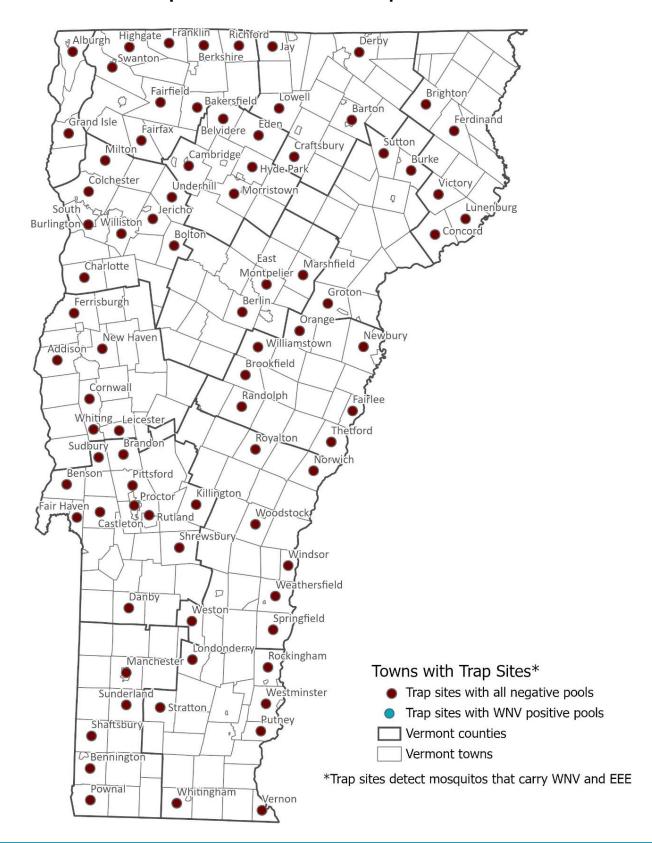
## **During the 2020 Mosquito Arboviral Surveillance season:**

- Mosquitoes were collected from 114 trap sites among 89 towns.
- No mosquito pools\* tested positive for WNV or EEE in 2020 (June • 14-October 10).
- Historically, the percentage of mosquito pools that test positive for an arbovirus increases in late August and peaks in mid-September.



No mosquitoes collected in 2020 tested positive for WNV or 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.



Mosquito pools were collected around the state, and no mosquitos collected in 2020 tested positive for WNV or EEE.

#### Through human and animal arboviral surveillance in 2020:

- No human cases of WNV or EEE were reported.
- No animal cases of WNV or EEE were reported.
- One duck was submitted for arboviral testing through the Health Department Laboratory; it tested negative for both WNV and EEE.

### 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

In 2020, Vermont focused mosquito resources on EEE surveillance, setting traps at 96 wetland locations in 82 towns across the state.

The most recent EEE virus activity in Vermont was detected in one mosquito pool in 2015. Eight positive mosquito pools were detected in 2014 and 22 in 2013.

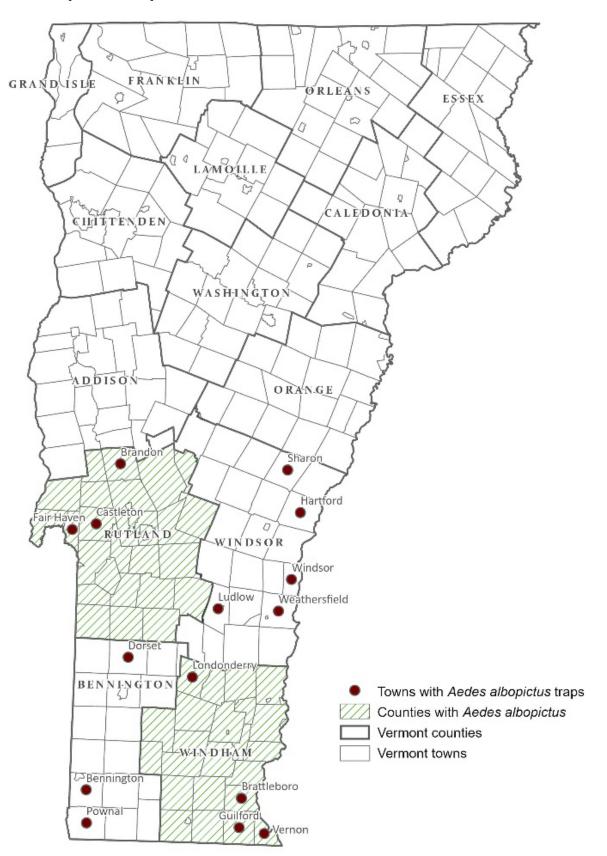
EEE virus has caused human or animal illnesses in Franklin, Rutland and Addison counties. The most recent human cases in Vermont were reported in 2012.

#### 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 2020, 18 trap sites in Vermont targeted the *A. albopictus* mosquito. *A. albopictus* mosquito eggs were found at one collection in July from Rutland County and for five consecutive weeks in August in Windham County.

*A. albopictus* is not considered an established (locally-reproducing) species in Vermont, but continued surveillance will help determine if it can overwinter or be reintroduced.



*Aedes albopictus* mosquitoes were found in Rutland and Windham counties in 2020.