VERMONT
DEPARTMENT OF HEALTH

2019 Arbovirus Surveillance Report

November 2019

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.

Mosquito Arboviral Surveillance

- Mosquitoes were collected from 105 trap sites among 83 towns.
- Five mosquito pools* tested positive for WNV this season (June 17–October 11).
- WNV positive pools were detected in Essex (2), Newport City (1), Vergennes (1), and St. Albans City (1).
- Historically, the percentage of mosquito pools that test positive for an arbovirus increases in late August and peaks in mid-September.

Mosquito Surveillance by the Numbers

Mosquito Pools Tested

3,217

WNV Positive Pools

5

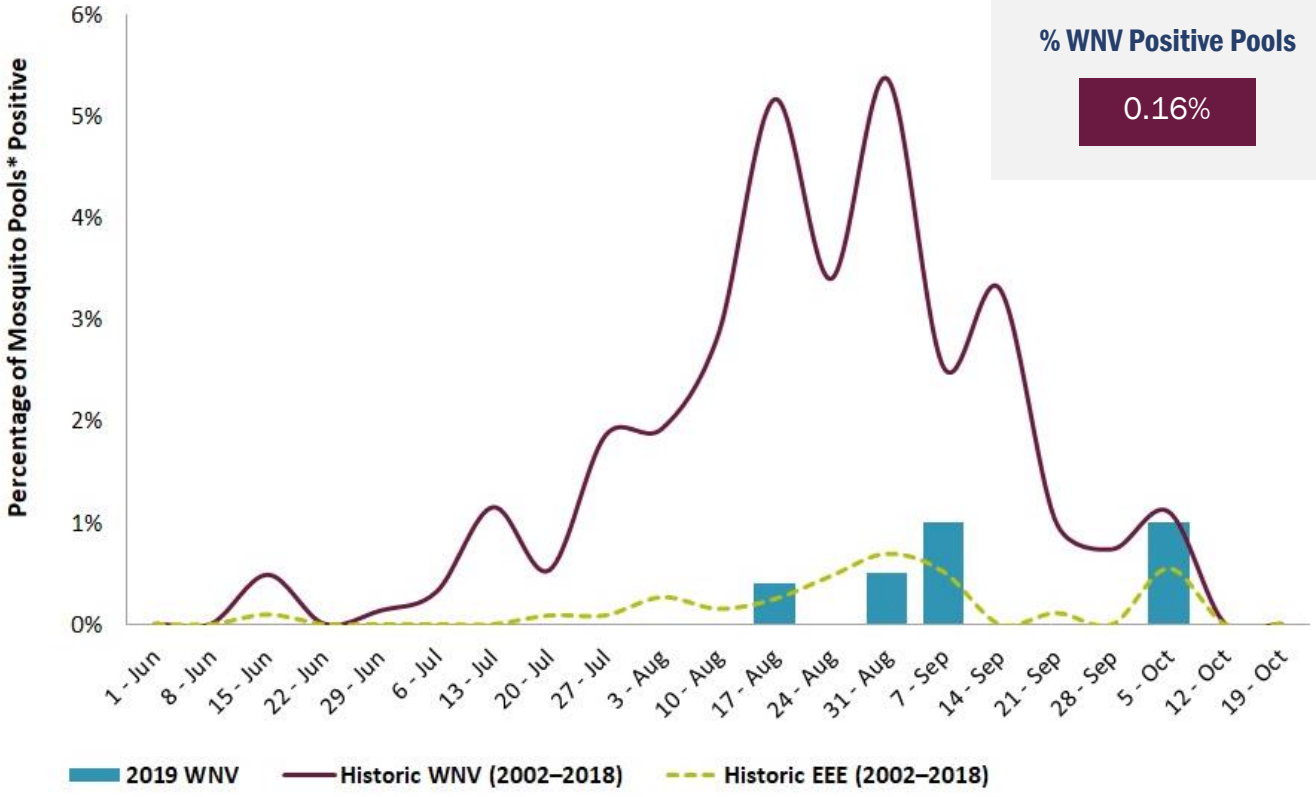
EEE Positive Pools

0

% WNV Positive Pools

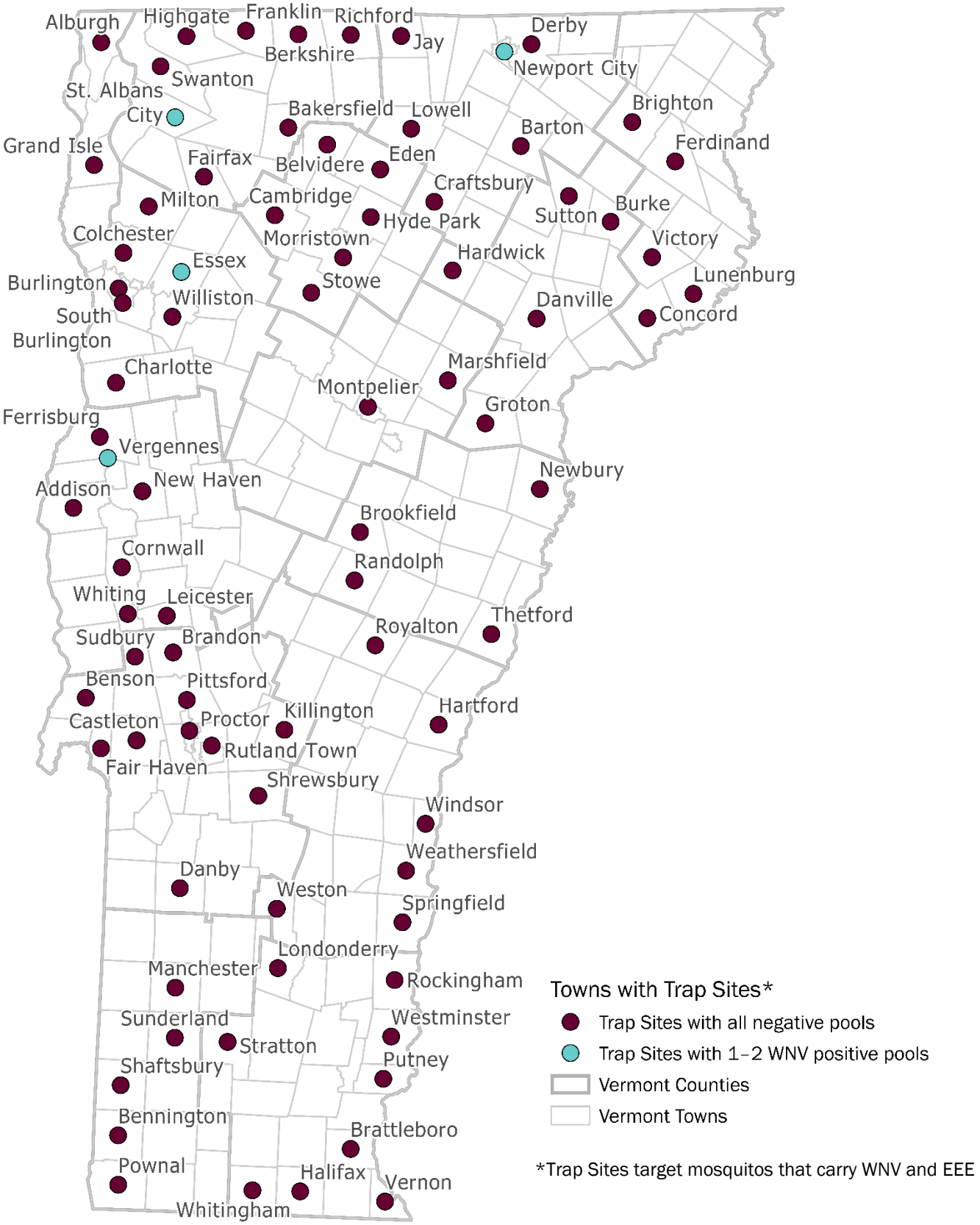
0.16%

Mosquito Testing Results — Vermont, 2019



*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 Surveillance Results and Trap Locations, 2019



Human and Animal Arboviral Surveillance

- No human cases of WNV or EEE were reported.
- No animal cases of WNV or EEE were reported.
- Six animals (four horses, one goat, one donkey) were submitted for arboviral testing through the Health Department Laboratory; none tested positive for WNV or EEE.

Arboviral Risk Assessment

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 response to EEE virus activity near the Massachusetts/Vermont border in 2019, additional trap sites were established, but no EEE virus activity was detected.

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 2019, 35 trap sites in Vermont targeted the *A. albopictus* mosquito. *A. albopictus* mosquito eggs were found at one site for two 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* Surveillance Results and Trap Locations, 2019**