

Vermont Arbovirus Surveillance Weekly Report

Vermont Department of Health

Division of Health Surveillance

Test Summaries

MMWR Week 32 (8/3/14 – 8/9/14)

Mosquitoes

| MMWR Week | Pools Tested | EEE Positive | WNV Positive |
|-----------|--------------|--------------|--------------|
| 32 | 303 | 0 | 1 |
| YTD | 1546 | 1 | 1 |

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

- On August 8th, one mosquito pool tested positive for WNV. The pool was collected from St. Albans City on July 29th and contained a mix of *Culex pipiens* and *Culex restuans* mosquitoes. These types of mosquitoes mostly bite birds but will also bite mammals, including people, when given the chance.
- Mosquito collections started on June 2nd this year, and testing began the week of June 16th.
- One mosquito pool tested positive for Eastern Equine Encephalitis virus on June 26th. The pool that tested positive for EEE virus contained mosquitoes of the species *Ochlerotatus canadensis* and was collected from Grand Isle on June 17th. This is the earliest in the summer that EEE virus has been detected in mosquitoes in Vermont.
- Mosquito batches were submitted from Addison, Caledonia, Chittenden, Franklin, Grand Isle, Lamoille, Orange, Orleans, Rutland, Washington, Windham, and Windsor counties. In total, 15 different mosquito species have been collected and tested for WNV and EEE, including: *Aedes cinereus*, *Aedes vexans*, *Coquillettidia perturbans*, *Culiseta melanura*, *Culiseta morsitans*, other *Culiseta* species, *Culex pipiens*, *Culex restuans*, *Culex salinarius*, *Culex pipiens/restuans*, *Ochlerotatus canadensis*, *Ochlerotatus trivittatus*, *Ochlerotatus stimulans*, *Ochlerotatus triseriatus*, and *Ochlerotatus japonicus*.
- The data in the above table includes the number of pools that have been tested and have final results.

Risk Assessment

West Nile virus: No part of the state appears to be at higher risk for WNV infection. Over the years, WNV activity has been detected in all counties of Vermont in birds, mosquitoes, people and/or animals. The risk for WNV appears to be low but widespread in the state. Finding WNV in mosquitoes in St. Albans demonstrates that WNV is circulating in Vermont this summer.

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Eastern equine encephalitis: Two areas of the state are at moderate risk based on detections of the EEE virus in the past two years. These areas are western Franklin County and northern Rutland/southern Addison Counties. For more details, see the risk maps at <http://healthvermont.gov/prevent/arbovirus/surveillance/index.aspx>. EEE virus was found in one mosquito pool from Grand Isle this year and one mosquito pool from Milton in 2013. This suggests that the EEE virus is widespread in Vermont, although so far it has only caused human or animal illnesses in Franklin, Rutland and Addison counties.

Recommendations

All Vermonters should take steps to prevent mosquito bites:

- Limit time outside when mosquitoes are most active which is usually from dusk to dawn.
- Wear long-sleeved shirts and long pants outside when mosquitoes are active.
- Use insect repellents that are labeled as being effective against mosquitoes.
 - Effective ingredients include DEET, picaridin, oil of lemon eucalyptus and IR3535.
Always use repellents according to the instructions on the label.
- Cover baby carriages or outdoor play spaces with mosquito netting.
- Fix any holes in the screens in your house and make sure they are tightly attached to the doors and windows.
- Reduce standing water around your home.
- Empty and refill containers such as water troughs and bird baths every 2 to 3 days to stop mosquitoes from breeding in them.

In addition, horses and other susceptible species should be vaccinated against EEE and WNV. People should consult their veterinarians about these vaccinations and the use of appropriate repellents for their animals.

For more information see: <http://healthvermont.gov/prevent/arbovirus/resources.aspx>

This table shows how many pools (batches) of mosquitoes from each town have been submitted for testing at the time of this report. Test results for some pools may be pending.

| Number of pools collected by week ¹ | | | | | | | | | | | |
|--|---------|----------|-----------|-----------|----------|----------|-----------|-----------|----------|---------|-------------|
| Towns | 6/1-6/7 | 6/8-6/14 | 6/15-6/21 | 6/22-6/28 | 6/29-7/5 | 7/6-7/12 | 7/13-7/19 | 7/20-7/26 | 7/27-8/2 | 8/3-8/9 | Grand Total |
| Alburg | 9 | 10 | 6 | 42 | 7 | 13 | 11 | 10 | 21 | 9 | 138 |
| Benson | 1 | | 2 | 1 | 1 | 2 | 5 | 2 | 2 | 7 | 23 |
| Brandon | | 3 | 8 | 2 | 4 | 23 | 12 | 3 | 13 | 8 | 76 |
| Brattleboro | | | | | | | 3 | | 4 | | 7 |
| Brookfield | | | | | 1 | 1 | 5 | 2 | 2 | 3 | 14 |
| Castleton | 2 | | 1 | 2 | 3 | 11 | 3 | 2 | 2 | 6 | 32 |
| Colchester | 5 | 1 | | 2 | | | 4 | 1 | 12 | | 25 |
| Cornwall | | 4 | 2 | 15 | | 1 | 3 | 10 | 1 | 11 | 47 |
| Danby | | | 1 | 1 | | 1 | | 1 | 3 | | 7 |
| Danville | | | | | | 1 | 5 | | | 2 | 8 |
| Dummerston | | | | | | | | 2 | 2 | 5 | 9 |
| East Montpelier | | | 1 | | 1 | | | | | | 2 |
| Eden | | | 1 | | | 11 | 2 | 5 | 12 | 1 | 32 |
| Elmore | | | | | 1 | | | 2 | 1 | | 4 |
| Fair Haven | | | 1 | 1 | 1 | 3 | 7 | 1 | | 10 | 24 |
| Fairfax | | | 1 | | 1 | | 3 | 8 | 1 | 3 | 17 |
| Grand Isle | 7 | 5 | 13 | 28 | 6 | 16 | 12 | 12 | 12 | 11 | 122 |
| Hartford | | | | | 1 | 1 | 2 | | 1 | | 5 |
| Highgate | | | | 9 | | 3 | 9 | 9 | 8 | | 38 |
| Hyde Park | | | 2 | 1 | 2 | 12 | 3 | 1 | 5 | 2 | 28 |
| Jericho | | | 2 | | | | | 1 | 5 | | 8 |
| Leicester | | | 20 | 4 | 3 | 3 | 12 | 3 | 1 | 1 | 47 |
| Lowell | | | 1 | | | 3 | 8 | 1 | 1 | 6 | 20 |
| Lyndon | | | | | | 2 | | | 1 | | 3 |
| Marshfield | 6 | | | | 1 | | 2 | 7 | 1 | 1 | 18 |
| Milton | 5 | 4 | 9 | 17 | 5 | 25 | 11 | 4 | 10 | 7 | 97 |
| Morrisville | | | 2 | | 1 | | 1 | 1 | 2 | | 7 |
| New Haven | 2 | 1 | 2 | 2 | 1 | 5 | 2 | 11 | 1 | 7 | 34 |
| Newbury | | | | | | | | 2 | 1 | 1 | 4 |
| Newport City | | | 3 | | | 4 | 7 | 3 | 7 | 7 | 31 |
| Orwell | | | 1 | | | 1 | 10 | 3 | | 8 | 23 |
| Pittsford | | | 2 | 2 | | 9 | 8 | 4 | 9 | 8 | 42 |
| Proctor | | | 2 | 2 | 1 | 13 | 1 | 7 | 6 | 1 | 33 |
| Putney | | | | | | | 3 | 1 | 6 | 1 | 11 |
| Randolph | | | 2 | | 1 | 1 | 2 | 7 | 4 | 1 | 18 |
| Rockingham | | | | | | | 7 | 3 | 6 | | 16 |

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| | | | | | | | | | | | |
|--------------------|-----------|-----------|------------|------------|-----------|------------|------------|------------|------------|------------|-------------|
| Rutland | | | 1 | 7 | 1 | 2 | 10 | 7 | 8 | 10 | 46 |
| Sheldon | 2 | 1 | | 1 | 6 | 2 | 2 | 6 | | 9 | 29 |
| Springfield | | | | | | | 2 | 1 | 1 | 5 | 9 |
| St. Albans City | | | | | | 2 | 6 | 9 | 5 | | 22 |
| Sudbury | | 5 | 6 | 5 | 4 | 17 | 5 | 5 | 9 | 3 | 59 |
| Sutton | | 2 | | 1 | 2 | 2 | 2 | 8 | 1 | 3 | 21 |
| Swanton | 3 | 5 | 5 | 19 | 2 | 3 | 14 | 4 | 5 | 8 | 68 |
| Vernon | | | | | | | | 6 | 16 | 2 | 24 |
| Waitsfield | | | | | | | | | | 1 | 1 |
| Wallingford | | | | 2 | | 1 | 1 | 2 | 6 | | 12 |
| Weathersfield | | | 1 | | | 1 | 6 | 3 | 11 | 4 | 26 |
| West Haven | | | | | | | | 4 | | | 4 |
| West Windsor | | | | | | 2 | 4 | 1 | 1 | 6 | 14 |
| Westminster | | | | | | | | 11 | 3 | 4 | 18 |
| Whiting | | 43 | 10 | 63 | 7 | 5 | 18 | 12 | 22 | 26 | 206 |
| Williston | | | | | | | 1 | 1 | 1 | 2 | 5 |
| Woodbury | | | 1 | | | | | 1 | | | 2 |
| Grand Total | 42 | 84 | 109 | 229 | 64 | 202 | 234 | 210 | 252 | 210 | 1636 |

¹Results are not yet available on all these samples