Vermont Arbovirus Surveillance Weekly Report

Vermont Department of Health

Division of Health Surveillance

Test Summaries

MMWR Week 35 (8/24/14 – 8/30/2014)

Mosquitoes

MMWR Week	Pools Tested	EEE Positive	WNV Positive
35	253	0	6
YTD	2453	3	7

*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 28th, five mosquito pools tested positive for West Nile Virus. Three of the pools were collected in Rockingham on August 21st; two of the pools contained Culex mosquitoes which mainly bite birds, but may also bite mammals. The other pool contained *Ochlerotatus japonicas* mosquitoes which primarily bite mammals. The fourth WNV positive pool was collected from Brattleboro on August 21st and contained Culex mosquitoes. The fifth WNV positive pool was collected from Newbury on August 18th and contained *Coquillettidia perturbans* mosquitoes which bite birds and mammals.
- On August 26th one mosquito pool tested positive for West Nile Virus. The pool was collected from Putney on August 21st and contained *Culex pipiens* and *Culex restauns* mosquitoes.
- On August 22nd, two mosquito pools tested positive for Eastern equine encephalitis (EEE) virus. Both pools were collected from Whiting on August 19th. The mosquito species were *Culiseta melanura* and *Culiseta morsitans*, which are predominantly bird biting species. In 2013, the first EEE virus positive mosquitoes from Whiting were collected on August 1st.
- 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.
- One mosquito pool tested positive for EEE 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 collections started on June 2nd this year, and testing began the week of June 16th.
- 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.

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.

Finding EEE virus positive mosquito pools again this year in Whiting should serve as a reminder that the virus is circulating. The risk level for southern Addison and northern Rutland Counties continues to be moderate.

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.

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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**	**8/10-8/16**	**8/17-8/23**	**8/24-8/30**	**Grand Total**
Alburg	9	10	6	42	7	13	11	10	21	9	11	6	16	171
Benson	1		2	1	1	2	5	2	2	7	5	1	3	32
Brandon		3	8	2	4	23	12	3	13	8	12	6	5	99
Brattleboro							3		4	3	8	9		27
Brookfield					1	1	5	2	2	3	2			16
Castleton	2		1	2	3	11	3	2	2	6	8	3	3	46
Colchester	5	1		2			4	1	12	13	1	4	5	48
Cornwall		4	2	15		1	3	10	1	11	14	8	11	80
Danby			1	1		1		1	3		6	5		18
Danville						1	5			2		1		9
Dummerston								2	2	5	6	3		18
East Montpelier			1		1					3		3		8
Eden			1			11	2	5	12	1	6	6		44
Elmore					1			2	1	3		2		9
Fair Haven			1	1	1	3	7	1		10	5	4	1	34
Fairfax			1		1		3	8	1	3	7	3	5	32
Grand Isle	7	5	13	28	6	16	12	12	12	11	11	8	7	148
Hartford					1	1	2		1	5	3	3	1	17
Highgate				9		3	9	9	8		4	2	6	50
Hyde Park			2	1	2	12	3	1	5	2	2	1		31
Jericho			2					1	5	3	1	2		14
Leicester			20	4	3	3	12	3	1	1	10	14	10	81
Lowell			1			3	8	1	1	6	3	5		28
Lyndon						2			1		2	1		6
Marshfield	6				1		2	7	1	1	2			20
Milton	5	4	9	17	5	25	11	4	10	7	9	4	4	114
Morrisville			2		1		1	1	2	8	3	4		22
New Haven	2	1	2	2	1	5	2	11	1	7	6	9	9	58
Newbury								2	1	4	5	2	2	16
Newport City			3			4	7	3	7	7	4			35
Orwell			1			1	10	3		8	10	5	3	41
Pittsford			2	2		9	8	4	9	8	5	7		54
Proctor			2	2	1	13	1	7	6	1	9	7		49
Putney							3	1	6	4	14	17	3	48
Randolph			2		1	1	2	7	4	1	7	3	1	29

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Rockingham							7	3	6	10	4	13	7	50
Rutland			1	7	1	2	10	7	8	10	3	8		57
Sheldon	2	1		1	6	2	2	6		9	1	9	8	47
Springfield							2	1	1	5	7	11	9	36
St. Albans City						2	6	9	5		9	6		37
Stowe										2	1	1		4
Sudbury		5	6	5	4	17	5	5	9	3	5	4	3	71
Sutton		2		1	2	2	2	8	1	3	2	1		24
Swanton	3	5	5	19	2	3	14	4	5	8	2	10	7	87
Vernon								6	16	11	12	12		57
Waitsfield										1	3	1		5
Wallingford				2		1	1	2	6		7	6		25
Weathersfield			1			1	6	3	11	4	14	7	3	50
West Haven								4						4
West Windsor						2	4	1	1	6	5	10	1	30
Westminster								11	3	4	7			25
Whiting		43	10	63	7	5	18	12	22	26	20	16	20	262
Williston							1	1	1	10	1	4	4	22
Woodbury			1					1		2		1		5
Woodstock											2	1		3
Grand Total	**42**	**84**	**109**	**229**	**64**	**202**	**234**	**210**	**252**	**285**	**306**	**279**	**157**	**2453**

[1]**Results may not be available on all of these samples**

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