

Arbovirus Surveillance Report

Week Ending: October 22, 2016 (MMWR Week 42)

Mosquito Surveillance

- No mosquito pools* tested positive for West Nile virus (WNV) during the week ending October 15th (MMWR Week 41)
- No mosquito pools have tested positive for Eastern equine encephalitis (EEE) this year

Week Ending Date – MMWR #	# of Mosquito Pools Tested	# of EEE Positive Pools	# of WNV Positive Pools
10/15/2016 - 41	35	0	0
Year-to-Date	3243	0	19

Animal Surveillance

- No animals in Vermont have tested positive for WNV or EEE this year

Human Surveillance

- Three cases of WNV have been reported in Vermont residents this year
- No human cases of EEE have been reported in Vermont this year

Aedes albopictus Surveillance

- In April of this year the Centers for Disease Control & Prevention (CDC) updated the estimated geographic range of the *Aedes albopictus* mosquito, a competent vector for the Zika virus, to include the southern half of Vermont (<http://www.cdc.gov/zika/vector/range.html>)
- In response, VAAFM began targeted trapping at four locations in southern Vermont in order to evaluate the presence/absence of *Aedes albopictus* mosquitoes in the state (Figure 1)
- No *Aedes albopictus* have been found at these sites

Risk Assessment

West Nile virus: Based upon the occurrence of two human cases of WNV from Windsor County, that county appears to be at higher risk for WNV than other counties in the state. Over the years, WNV activity has been detected in all counties of Vermont in birds, mosquitoes, people and/or animals. At this time the risk for WNV appears to be widespread in the state.

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

Eastern equine encephalitis: Two areas of the state are at moderate risk based on detections of the EEE virus in the past few 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 in 2015, 8 mosquito pools in 2014 and one mosquito pool in 2013. EEE virus is likely widespread in Vermont, although 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>

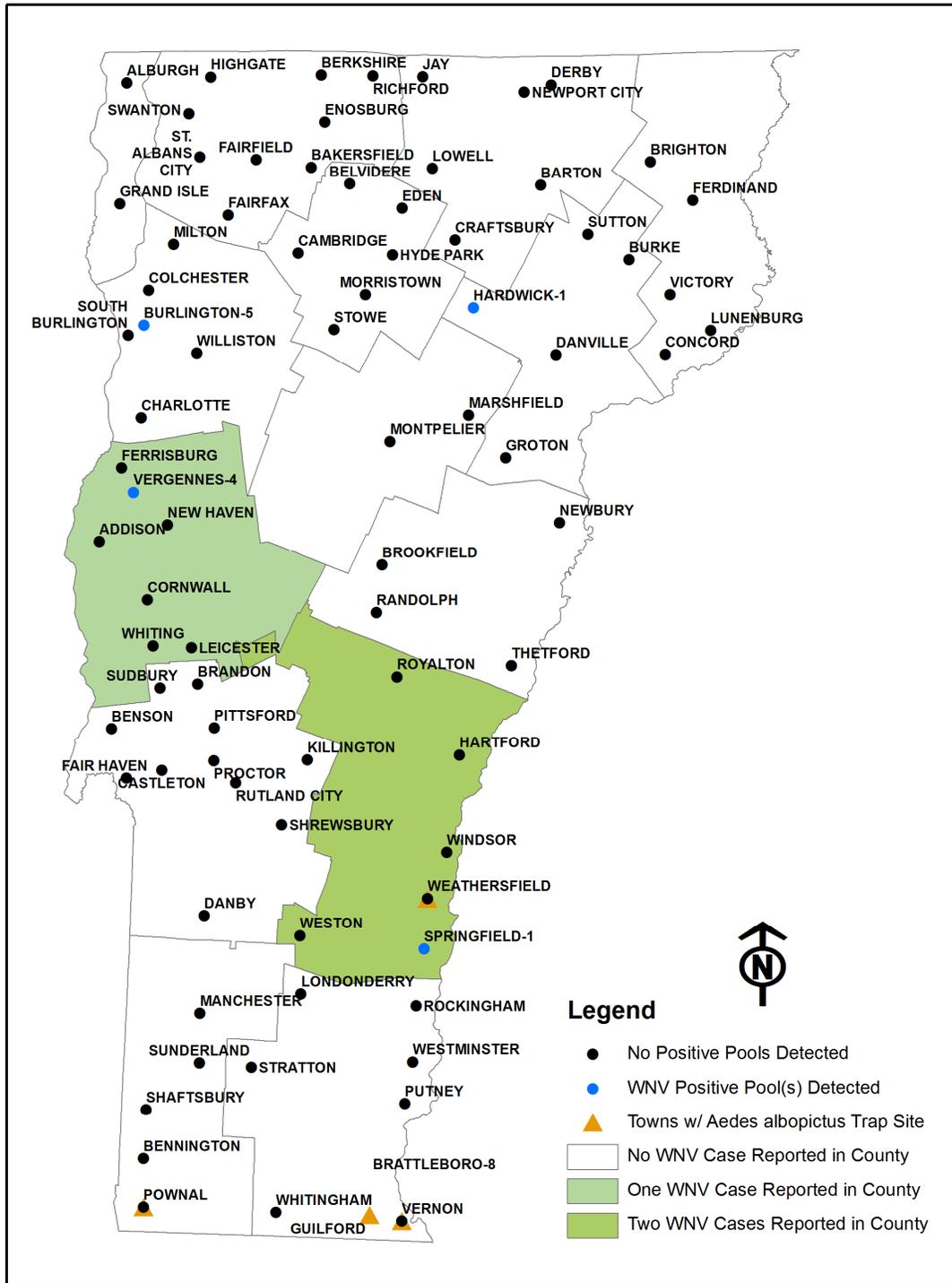
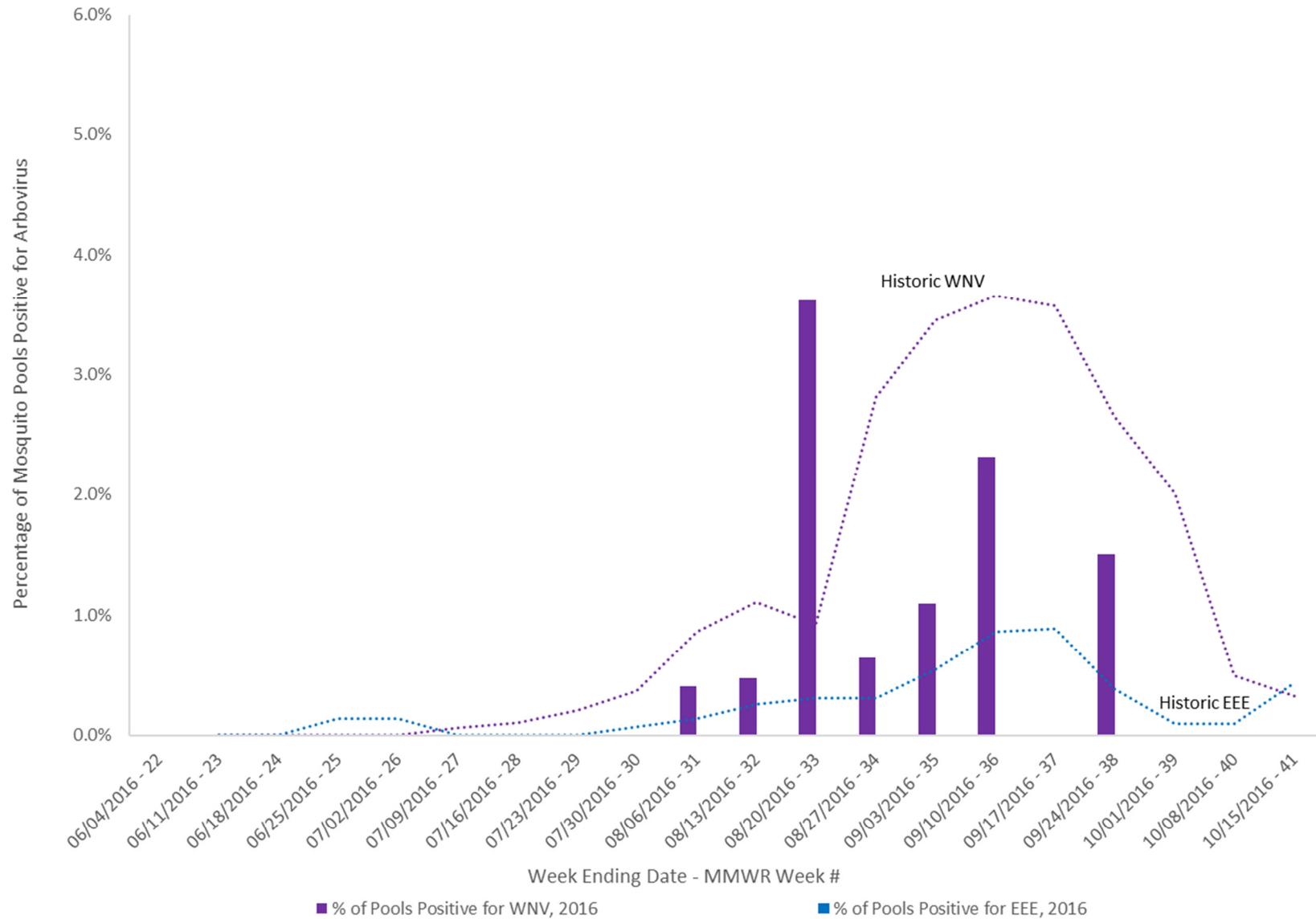
Figure 1. Mosquito Surveillance Map – Week Ending: October 15, 2016 (MMWR 41)


Figure 2. Arbovirus Surveillance - Week Ending October 15, 2016 (MMWR 41)



Dotted lines (purple & blue) represent a moving average for the percentage of mosquito pools that have been positive for WNV or EEE since 2002. The percentage of pools that have been positive for an arbovirus has historically increased in late August and peaked in mid-September.