NH DIVISION OF Public Health Services
Improving health, preventing disease, reducing costs *for all*
Department of Health and Human Services

Bureau of Infectious Disease Control
Infectious Disease Surveillance Section

2014 Arboviral Surveillance Summary

Summary

The New Hampshire Department of Health and Human Services (NH DHHS) tested human, veterinary, and mosquito specimens for arboviruses in 2014. Testing performed at the NH Public Health Laboratories (PHL) identified:

- West Nile virus (WNV) in one mosquito batch
- Eastern Equine Encephalitis (EEE) virus was identified in three humans, two horses, one mule, and 18 mosquito batches.

Given the continued arboviral activity detected during the 2014 season, NH DHHS encourages communities to maintain heightened levels of mosquito-borne disease education, surveillance, and control during 2015.

Table 1: Specimens Tested and Arboviral Test Results by Year, 2011-2014*

Species	2011			2012			2013			2014		
	Tested	WNV+	EEE+	Tested	WNV+	EEE+	Tested	WNV+	EEE+	Tested	WNV+	EEE+
Mosquito Batches	2733	9	0	4716	41	9	5316	14	24	3964	1	18
Veterinary	6	0	0	11	0	4	28	1	3	11	0	3
Humans	44	0	0	37	1	0	34	1	0	38	0	3

*Comparison between years must consider variations in surveillance criteria.

Human Surveillance

Between January 1 and December 31, 2014, 38 patients were tested for EEE and WNV at the NH PHL.

- No human samples tested positive for WNV.
- Three humans tested positive for EEE (Conway, Hopkinton, and Manchester).

Animal Surveillance

Between January 1 and December 31, 2014, 11 veterinary specimens were tested for EEE and WNV at the NH PHL.

- No animals tested positive for WNV.
- Two horses (Nottingham and Sanbornton) and one mule (Candia) tested positive for EEE.

Mosquito Surveillance

Between January 1 and December 31, 2014, 3,964 mosquito batches were tested for EEE and WNV at the NH PHL.

- One batch tested positive for WNV in Greenland. The species testing positive was *Culiseta melanura (1)*.
- Eighteen batches tested positive for EEE in the towns of Candia (3), Derry (3), Hampstead (2), Kingston (3), Londonderry (2), Amherst (1), Danville (1), Portsmouth (1), Newton (1) and Raymond (1). The species testing positive were *Culiseta melanura* (16), *Ochlerotatus canadensis* (1) and *Aedes cinereus* (1).
- Mosquitoes batches were submitted for testing from Carroll, Cheshire, Hillsborough, Rockingham, and Strafford Counties

Public Health Threat Declaration

A NH Public Health Threat Declaration based on arboviral activity was not made in 2014.

Regional Risk Levels

- In 2014, the NH DHHS estimated human risk levels for defined "Focal Areas" in the State. "Focal Areas" may incorporate multiple municipalities and are based on integrating mosquito habitat, mosquito abundance, current and historic virus activity, and weather conditions needed to present risk of human disease.
- During the arboviral transmission season, estimated risk levels were announced to the public, local officials, and state partners through email, press releases, and postings to the NH DHHS website.
- NH DHHS updated the Risk Map weekly throughout the 2014 season to reflect ongoing arboviral surveillance. For 2014, risk levels across the state ranged from "Baseline/No Data" to "High" depending on current and historical arbovirus detections.
- For more information on the arboviral test results and to view the final 2014 Risk Map, please visit: http://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm.

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