

**New Hampshire Department of Health and Human Services  
Infectious Disease Surveillance Section**

**Arboviral Surveillance Summary, 2012**

Summary

The New Hampshire Department of Health and Human Services (NH DHHS) tested human, veterinary, and mosquito specimens for arboviruses in 2012. Testing performed at the NH Public Health Laboratories (PHL) identified West Nile virus (WNV) in one human and 41 mosquito batches. Eastern Equine Encephalitis (EEE) virus was identified in two horses, two emus and nine mosquito batches. Given the continued arboviral activity detected during the 2012 season, NH DHHS encourages communities to maintain heightened levels of mosquito-borne disease education, surveillance, and control during 2013.

**Table 1: Specimens Tested and Arboviral Test Results by Year, 2009-2012\***

Species	2009			2010			2011			2012		
	Tested	WNV+	EEE+									
Mosquito Batches	3887	0	73	2214	1	0	2733	9	0	4716	41	9
Veterinary	27	0	13	8	0	1	6	0	0	11	0	4
Humans	95	0	1	32	1	0	44	0	0	37	1	0

\*Comparison between years must consider variations in surveillance criteria.

Human Surveillance

Between January 1 and December 31, 2012, 49 patients were tested for EEE and WNV at the NH PHL. There was one WNV positive human (Manchester). No humans tested positive for EEE.

Animal Surveillance

Between January 1 and December 31, 2012, 11 veterinary specimens were tested for EEE and WNV at the NH PHL. Two horses (Durham and Derry) and two emu (Fitzwilliam) tested positive for EEE. There were no positive veterinary specimens for WNV.

Mosquito Surveillance

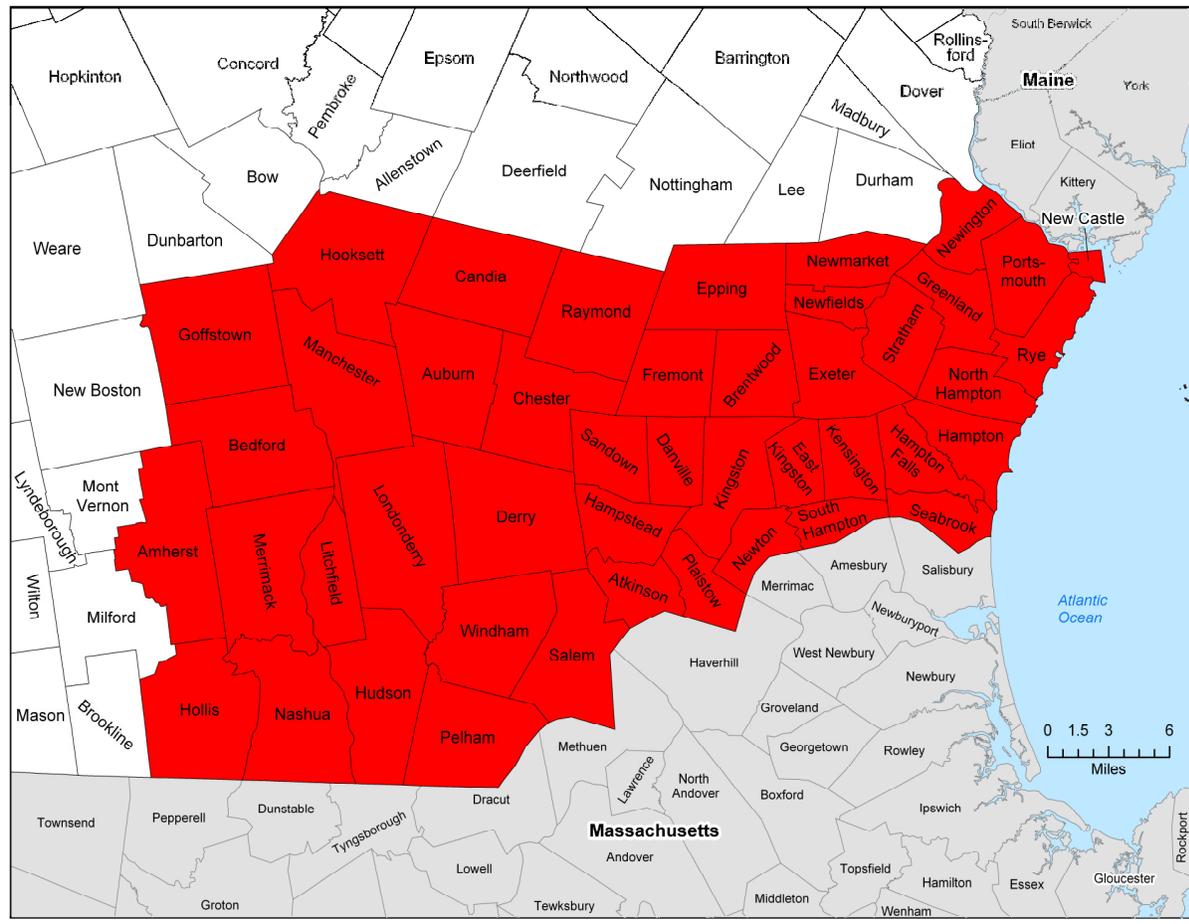
Between January 1 and December 31, 2012, 4716 mosquito batches were tested for EEE and WNV at the NH PHL. Forty-one batches tested positive for WNV across Hillsborough (34) and Rockingham (7) Counties. The species testing positive were *Culex pipiens/restuans* (23), *Culex restuans* (3), *Culex pipiens* (6), *Coquillettidia perturbans* (3), *Ochlerotatus triseriatus* (1), *Aedes vexans* (1), *Culex salinarius* (2), *Ochlerotatus japonicus* (1) and *Culiseta melanura* (1). Nine batches tested positive for EEE across Hillsborough (1) and Rockingham (8) Counties. The species testing positive were *Culiseta melanura* (8) and *Culiseta morsitans* (1).

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**Public Health Threat Declaration**

Based on increased EEE activity in 2012, a NH Public Health Threat Declaration was made on August 23, 2012 involving 45 municipalities (Figure 1).

**Fig. 1. Declaration of Public Health Threat due to Mosquito-borne Illness, New Hampshire, 2012.**



**Regional Risk Levels**

In 2012, 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 2012 season to reflect ongoing arboviral surveillance. For 2012, risk levels across the state ranged from “Remote” to “High” depending on current and historical arbovirus detections. For more information on the arboviral test results and to view the final 2012 Risk Map, please visit: <http://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm>.