

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

**Arboviral Diseases Surveillance Summary, 2010**

Summary

The New Hampshire Department of Health and Human Services (NH DHHS) identified Eastern Equine Encephalitis (EEE) virus and West Nile virus in 2010. Testing performed at the NH Public Health Laboratories (PHL) identified EEE in a horse and WNV in a mosquito batch. Given the continued arboviral activity detected during the 2010 season, NH DHHS encourages communities to maintain heightened levels of mosquito-borne disease education, surveillance, and control during 2011.

**Table: Specimens Tested and WNV/EEE Positives by Year, 2007-2010\***

Species	2007			2008			2009			2010		
	Tested	WNV+	EEE+	Tested	WNV+	EEE+	Tested	WNV+	EEE+	Tested	WNV+	EEE+
Wild Birds	31	2	0	0	0	0	0	0	0	0	0	0
Mosquito Pools	10674	0	6	10020	1	8	3887	0	73	2214	1	0
Veterinary	8	0	2	7	0	1	27	0	13	8	0	1
Humans	185	0	3	205	0	0	95	0	1	32	1	0

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

Human Surveillance

Between January 1 and October 30, 2010, 32 patients were tested for EEE and WNV at the NH PHL. One human case of WNV was identified in a NH resident from Mason during this period (onset date 8/27/10).

Animal Surveillance

Between January 1 and October 30, 2010, 8 veterinary specimens were tested for EEE and WNV at the NH PHL. One horse tested positive for EEE in Freedom.

Mosquito Surveillance

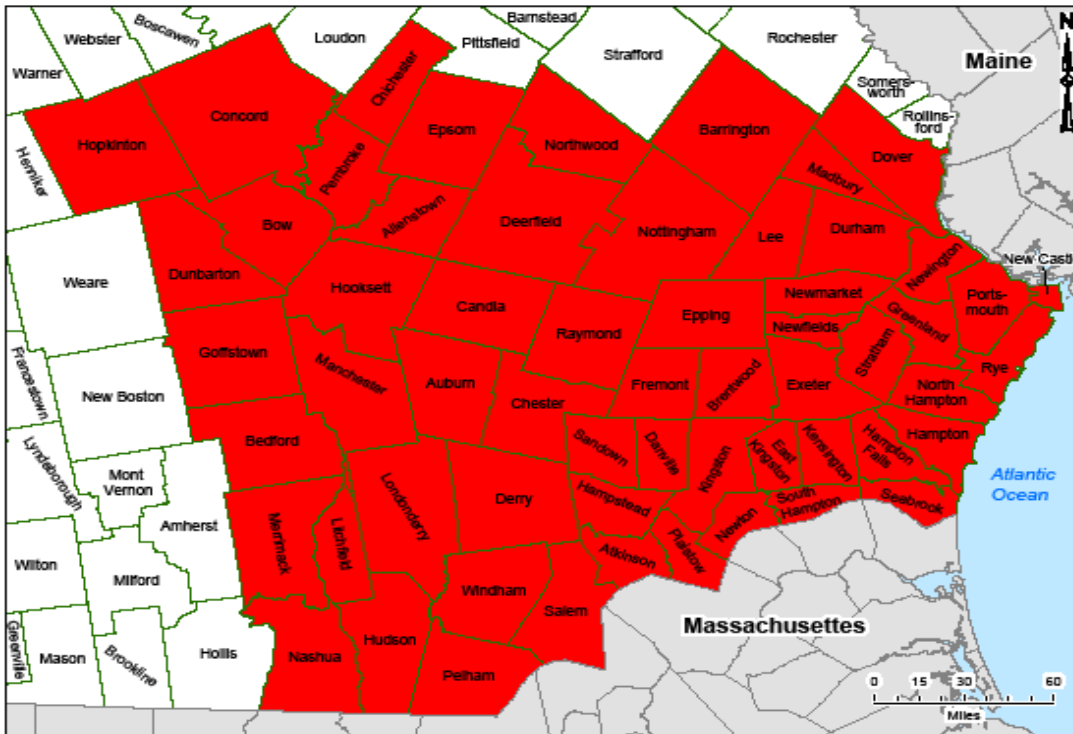
Between July 1 and September 30, 2010, 2214 mosquito samples were tested for EEE and WNV at the NH PHL. One sample tested positive for WNV in Hillsborough County. The species testing positive was *Culex pipiens/restuans* (1).

Public Health Threat Declaration

Based on Arboviral activity in 2009, a NH Public Health threat declaration was continued for 2010 involving 59 municipalities (Figure 1).

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Fig. 1. Declaration of Public Health Threat due to Mosquito-borne Illness,  
New Hampshire, 2009 and 2010.



Regional Risk Levels

In 2010, 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.

As of September 2009, NH DHHS estimated the risk level for southeastern NH as a high risk for a human outbreak of EEE. NH DHHS updated the Risk map in August 2010 to reflect the Arboviral activity.

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**Fig. 2. NH DHHS-Estimated Arboviral Risk Levels for NH, as of August 2010**

