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*

<table>
<thead>
<tr>
<th>Species</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tested</td>
<td>WNV+</td>
<td>EEE+</td>
<td>Tested</td>
</tr>
<tr>
<td>Wild Birds</td>
<td>31</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mosquito Pools</td>
<td>10674</td>
<td>0</td>
<td>6</td>
<td>10020</td>
</tr>
<tr>
<td>Veterinary</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Humans</td>
<td>185</td>
<td>0</td>
<td>3</td>
<td>205</td>
</tr>
</tbody>
</table>

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

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

Current Arboviral Risk Levels (as of August 31, 2010)

- Remote
- Low
- Moderate
- High
- Critical

Interpretation of the ‘remote’ designation in northern and western parts of the state is limited by lack of mosquito feeding in these areas.

See current Arboviral illness Surveillance, Prevention and Response Plan: (http://www.dhhs.state.nh.us/DOH/DCS/Library/Policy-Guidelines/arboviral-response-plan.htm) for additional information on how the NH DHHS estimates risk levels and community and individual prevention activities to reduce the risk of human disease from Eastern Equine Encephalitis and West Nile Virus.