Arbovirus surveillance in Florida includes endemic mosquito-borne viruses West Nile virus (WNV), Eastern equine encephalitis virus (EEEV), St. Louis encephalitis virus (SLEV), and Highlands J virus (HJV) and exotic viruses such as Dengue virus (DENV) and California encephalitis group viruses (CEV). Malaria, a non-viral mosquito-borne disease is also included. During the period of March 11 - March 17, 2012, the following arboviral activity was recorded in Florida:

**DENV activity:** No new cases of locally acquired dengue were reported this week.

**EEEV activity:** No EEV activity was reported this week. In 2012, positive samples from three equines and seven sentinel chickens have been received from five counties.

**WNV activity:** Two sentinel chickens in Hillsborough and Orange counties tested positive for antibodies to WNV. In 2012, positive samples from 26 sentinel chickens have been received from six counties.

**SLEV activity:** No SLEV activity was reported this week. In 2012, positive samples from three sentinel chickens have been received from one county.

**HJV activity:** No HJV activity was reported this week. In 2012, a positive sample from one sentinel chicken has been received from one county.

**Advisories/Alerts:** No counties are currently under mosquito-borne illness advisory or alert.

**Year to Date Human Case Summary**

**Imported Dengue:** Six cases of dengue with onset in 2012 have been reported in individuals with travel history to a dengue endemic country in the two weeks prior to onset. Countries of origin were Dominican Republic, Haiti, Ghana, Guyana, Mexico and Surinam. Counties reporting cases were Broward (5) and Lee.

**Imported Malaria:** Ten imported cases of malaria with onset in 2012 have been reported. Countries of origin were: Ghana, Guyana, Haiti (6) and Nigeria (2). Counties reporting cases were: Broward (5), Duval, Marion, Miami-Dade, Orange and Palm Beach.

**Veterinary Cases**

No positive horses were reported this week.
Veterinary EEE in Florida, March 2011-2012

Number of cases

Month of onset

March April May June July August September October November December January February March

Veterinary WNV Disease in Florida, March 2011-2012

Number of cases

Month of onset

March April May June July August September October November December January February March
Two sentinel chickens in Hillsborough and Orange counties tested positive for antibodies to WNV. Seroconversion rates are calculated by week and include previously reported results.

<table>
<thead>
<tr>
<th>County</th>
<th>Collection Date</th>
<th>Seroconversion Rates (%)</th>
<th>County Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough</td>
<td>03/06/12</td>
<td>1.23 WNV</td>
<td>1 EEEV, 3 SLEV, 11 WNV</td>
</tr>
<tr>
<td>Orange/Reedy</td>
<td>03/01/12</td>
<td>2.38 WNV</td>
<td>2 EEEV, 8 WNV</td>
</tr>
</tbody>
</table>

![Graph showing sentinel seroconversions to EEEV in North and Panhandle Florida, 2011-2012](image)
The Florida Fish and Wildlife Conservation Commission (FWC) collects reports of dead birds, which can be an indication of arbovirus circulation in an area. This week, five reports representing six dead birds were received from four counties. One bird was identified as a raptor; none were identified as crows or jays. In 2012, eighty-one reports representing a total of 248 dead birds (3 crows, 2 jays, 13 raptors, 230 others) were received from 32 of Florida’s 67 counties. Please note that FWC collects reports of birds that have died from a variety of causes, not only arboviruses. Dead birds should be reported to www.myfwc.com/bird/
Maps

Florida Arbovirus Surveillance
March 11 - March 17, 2012

- WNV Positive Chickens

Florida EEEV YTD Surveillance
January 01 - March 17, 2012

- Confirmed Equine EEE (Total = 3)
- Confirmed Sentinel Chicken EEEV (Total = 7)
Arbovirus Activity by County

<table>
<thead>
<tr>
<th>County</th>
<th>Arbovirus Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus</td>
<td>EEEV : 1 sentinel (1/30) HJV: 1 sentinel (1/3)</td>
</tr>
<tr>
<td>Hernando</td>
<td>WNV: 1 sentinel (1/23)</td>
</tr>
<tr>
<td>Hillsborough</td>
<td>EEEV : 1 sentinel (2/14)  SLEV: 3 sentinels (1/3)  WNV: 11 sentinels (1/3, 1/17, 1/31, 2/14, 3/6)</td>
</tr>
<tr>
<td>Lee</td>
<td>WNV: 1 sentinel (1/23)</td>
</tr>
<tr>
<td>Levy</td>
<td>EEEV: 2 horses (1/2)</td>
</tr>
<tr>
<td>Manatee</td>
<td>WNV: 1 sentinel (2/1)</td>
</tr>
<tr>
<td>Orange</td>
<td>EEEV: 5 sentinels (1/5, 1/9, 1/19, 1/23, 2/6)  WNV: 9 sentinels (1/9, 1/12, 1/19, 1/25, 3/1)</td>
</tr>
<tr>
<td>Putnam</td>
<td>EEEV: 1 horse (1/1)</td>
</tr>
<tr>
<td>Sarasota</td>
<td>WNV: 3 sentinels (1/9, 2/6)</td>
</tr>
</tbody>
</table>

Acknowledgements and Data Sources

Contributors: Leena Anil, Ph.D., Danielle Stanek, DVM, and Carina Blackmore, DVM, Ph.D., DOH Bureau of Environmental Public Health Medicine; Lillian Stark, Ph.D. and Valerie Mock, DOH Bureau of Laboratories.

For more surveillance information, please see the DOH website at: http://www.doh.state.fl.us/Environment/medicine/arboviral/index.html
Case tallies included in the weekly Florida arbovirus surveillance report include confirmed and probable cases for EEE, WNV infection, SLE, dengue, and malaria. In addition, dengue and malaria tallies may also include suspect cases. Case definitions being used in Florida are consistent with national criteria provided by the Council of State and Territorial Epidemiologists (CSTE) and may be viewed at: [http://www.doh.state.fl.us/Disease_ctrl/epi/surv/CaseDefinitions/2012CaseDef_FINAL.pdf](http://www.doh.state.fl.us/Disease_ctrl/epi/surv/CaseDefinitions/2012CaseDef_FINAL.pdf)

Case tallies reported by CDC do not include suspect cases and cases are reported by patient state of residence rather than where the exposure occurred.

Data is provided by county health departments, Department of Health Laboratories, Department of Agriculture and Consumer Services, mosquito control agencies, Florida Fish and Wildlife Conservation Commission, medical providers and veterinarians. Equine cases are determined by the Department of Agriculture and Consumer Services.