

Florida Arbovirus Surveillance Week 29: July 17 – July 23, 2011

Arbovirus surveillance in Florida includes endemic mosquito-borne viruses such as 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 July 17 - July 23, 2011, the following arboviral activity was recorded in Florida:

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

EEEV activity: One equine case of EEEV was reported in Holmes County. In 2011, positive samples from three equines, 13 sentinel chickens and 19 live wild birds have been received from ten counties.

WNV activity: Six sentinel chickens in Miami-Dade, Orange and Sarasota Counties tested positive for antibodies to WNV. In 2011, 42 sentinel chickens and one live wild bird (flavivirus positive) have been received from 12 counties.

SLEV activity: One sentinel chicken in Indian River County tested positive for antibodies to SLEV. In 2011, positive sample from one sentinel chicken has been received from one county.

HJV activity: No HJV activity was reported this week. In 2011, positive samples from five sentinel chickens have been received from three counties.

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

Year to Date Human Case Summary

Dengue Acquired in Florida: In 2011, one case of locally acquired dengue has been reported in Miami-Dade County.

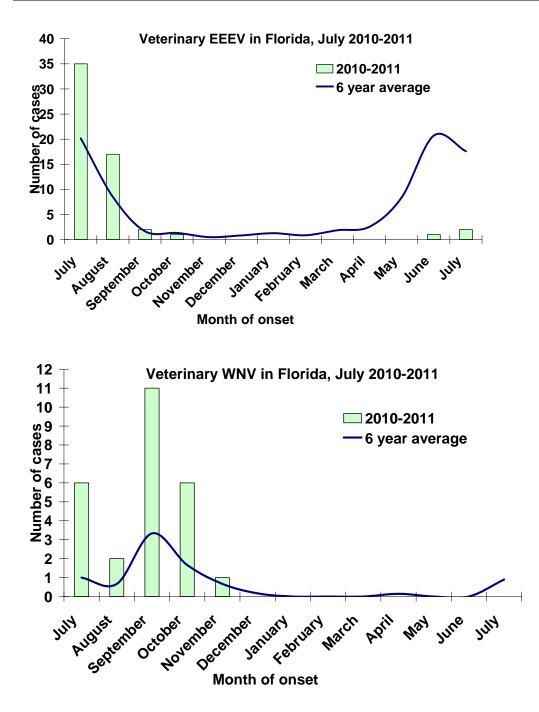
Imported Dengue: Nine cases of dengue with onset in 2011 have been reported in individuals with travel history to a dengue endemic country in the two weeks prior to onset. Countries of origin were Aruba, Brazil, Colombia, Guyana, Haiti, India, Nicaragua, Turks and Caicos Islands and Venezuela. Counties reporting cases were Broward (2), Hendry, Miami-Dade (4), Pasco and Pinellas.

Imported Malaria: Fifty imported cases of malaria with onset in 2011 have been reported. Countries of origin were: Afghanistan (2), Cameroon, East Timor, Ethiopia (2), Eritrea (2), Gabon, Ghana (3), Guinea Conakry, Guyana, Haiti (14), Honduras (2), India (8), Liberia (2), Mali, Nigeria (4), Peru, Rwanda, Uganda (2) and Venezuela. Counties reporting cases were: Alachua (2), Brevard (2), Broward (4), Citrus, Collier (2), Duval (5), Escambia, Hillsborough (3), Indian River, Lee (4), Leon (2), Miami-Dade (10), Manatee (2), Okaloosa, Orange (3), Palm Beach (3), Pasco, Pinellas, Seminole and St. Lucie.

Veterinary Cases

One horse in Holmes County tested positive for EEEV this week.

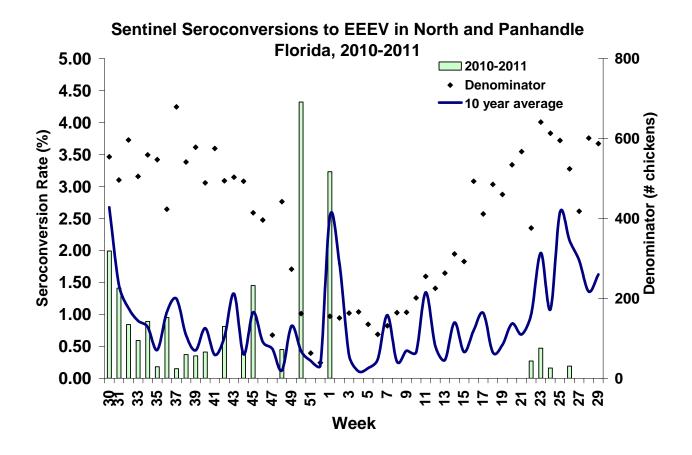
| County | Onset Date | Species | Virus | Status | County YTD |
|--------|------------|---------|-------|------------|------------|
| Holmes | 07/06/11 | Equine | EEEV | Euthanized | 2 EEEV |

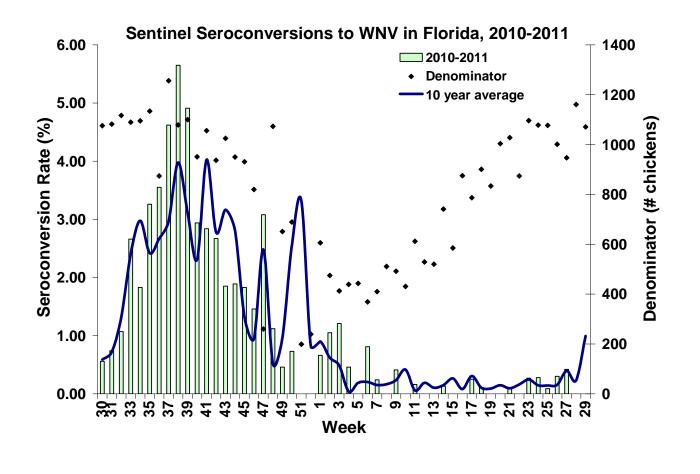


Sentinel Chickens

Six sentinel chickens in Miami-Dade, Orange and Sarasota Counties tested positive for antibodies to WNV. One sentinel chicken in Indian River County tested positive for antibodies to SLEV. Seroconversion rates are calculated by week and include previously reported results.

| County | Collection Date | Seroconver SLEV WN | r sion Rates (%) / EEEV HJV | County T Week | otals YTD |
|--------------|--------------------|-----------------------|---------------------------------------|------------------|----------------------|
| Indian River | 06/23/11 | 2.44 | | 1 SLEV | 1 WNV, 1 SLEV |
| Miami-Dade | 06/22/11 | 4.17 | , | 1 WNV | 2 WNV |
| Orange Reedy | 07/07/11 | 9.52 | 2 | 4 WNV | 2 EEEV, 1 HJV, 4 WNV |
| Sarasota | 06/27/11 | 1.30 | | 1 WNV | 6 WNV |





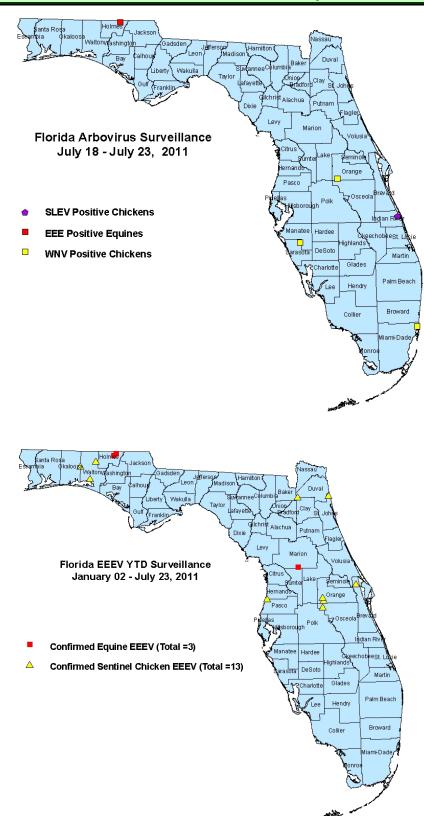
Live Wild Birds

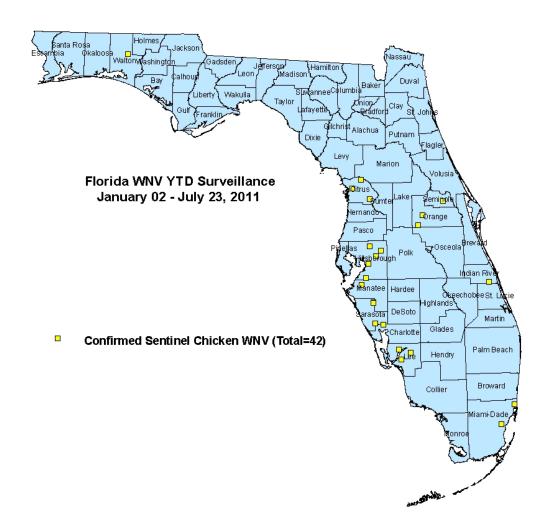
No positive live wild birds were reported this week.

Dead Birds

The Fish and Wildlife Conservation Commission (FWC) collects reports of dead birds, which can be an indication of arbovirus circulation in an area. This week, four reports representing ten dead birds were received from four counties. Five were identified as crows and one as raptor. None were identified as jays. In 2011, one hundred and seventy reports representing a total of 556 dead birds (24 crows, 36 jays, 44 raptors, 452 others) were received from 42 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





YTD Arbovirus Activity by County

| County | Arbovirus Activity | | |
|--------------|--|--|--|
| Brevard | EEEV: 2 sentinels (5/20, 5/27) | | |
| Citrus | WNV: 3 sentinels (1/3, 1/11) | | |
| Charlotte | WNV: 1 sentinel (7/1) | | |
| Dade | WNV: 2 sentinels (1/18, 6/22) | | |
| Duval | EEEV: 1 sentinel (6/11) | | |
| Hernando | EEEV: 1 sentinel (6/6) | | |
| Hillsborough | WNV: 13 sentinels (1/4, 1/11, 1/18, 1/25, 2/9, 3/1) | | |
| Holmes | EEEV: 2 horses (7/3, 7/6) | | |
| Indian River | WNV: 1 sentinel (4/28, | | |
| | SLEV: 1 sentinel (6/23) | | |
| Lee | WNV: 4 sentinels (6/27, 6/13) | | |
| Manatee | WNV: 1 sentinel (4/4) | | |
| Marion | EEEV: 1 horse (6/21) | | |
| Nassau | HJV: 1 sentinel (5/23) | | |
| Okaloosa | WNV: 1 live wild bird (flavivirus positive, 1 blue jay 5/31) | | |

| | EEEV: 10 live wild birds (7 blue jays 1/10, 4/11, 4/25, 5/16, 5/19, 6/6, 6/8; 1 cardinal |
|------------|--|
| | 1/ 11 and 2 brown thrashers 2/21, 4/20) |
| Orange | WNV: 7 sentinels (1/3, 1/18, 1/24, 7/7) |
| | EEEV: 3 sentinels (6/2, 6/9, 6/27) |
| | HJV: 1 sentinel (2/24) |
| Santa Rosa | EEEV: 7 live wild birds (1 house sparrow 1/05 and 6 blue jays 3/1, 2/1, 4/12, 5/10, |
| | 5/18) |
| Sarasota | WNV: 6 sentinels (1/4, 2/14, 3/14, 4/25, 5/2, 6/27) |
| Seminole | WNV: 3 sentinels(6/7) |
| St. Johns | EEEV: 1 sentinel (6/13) |
| Walton | EEEV: 5 sentinels (1/6) ; 2 live wild birds (2 cardinals 1/14, 1/21) |
| | WNV: 1 sentinel (5/24) |
| | HJV: 3 sentinels (1/14, 4/18,5/2) |

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

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. Wild captured bird information is provided by the John A. Mulrennan Public Health Entomology Research and Education Center.