



Florida Arbovirus Surveillance Week 35: August 28 – September 03, 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 August 28 – September 03, 2011, the following arboviral activity was recorded in Florida:

DENV activity: No new cases of locally acquired dengue were reported this week. In 2011, there have been two locally acquired cases reported in Miami-Dade and Martin counties.

EEEV activity: No EEEV activity was reported this week. In 2011, positive samples from three equines, 19 sentinel chickens and 19 live wild birds have been received from 11 counties.

WNV activity: Two new cases of locally acquired WNV infection were reported this week. Eight sentinel chickens in Indian River, Leon, Orange and Sarasota counties tested positive for antibodies to WNV. In 2011, positive samples from 13 humans, 68 sentinel chickens, one equine and one live wild bird (flavivirus positive) have been received from 16 counties.

SLEV activity: Four sentinel chickens in Pinellas County tested positive for antibodies to SLEV. In 2011, positive samples from five sentinel chickens have been received from two counties.

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

Advisories/Alerts: Duval and Pinellas counties are under mosquito-borne illness alert. Martin and Holmes Counties are under mosquito-borne illness advisory.

Year to Date Human Case Summary

West Nile Virus Infection Acquired in Florida: Eleven human cases of WNV infection have been reported in 2011 in Duval County with onset in June (1), July (7) and Aug (3). Two positive asymptomatic blood donors were reported in Duval County.

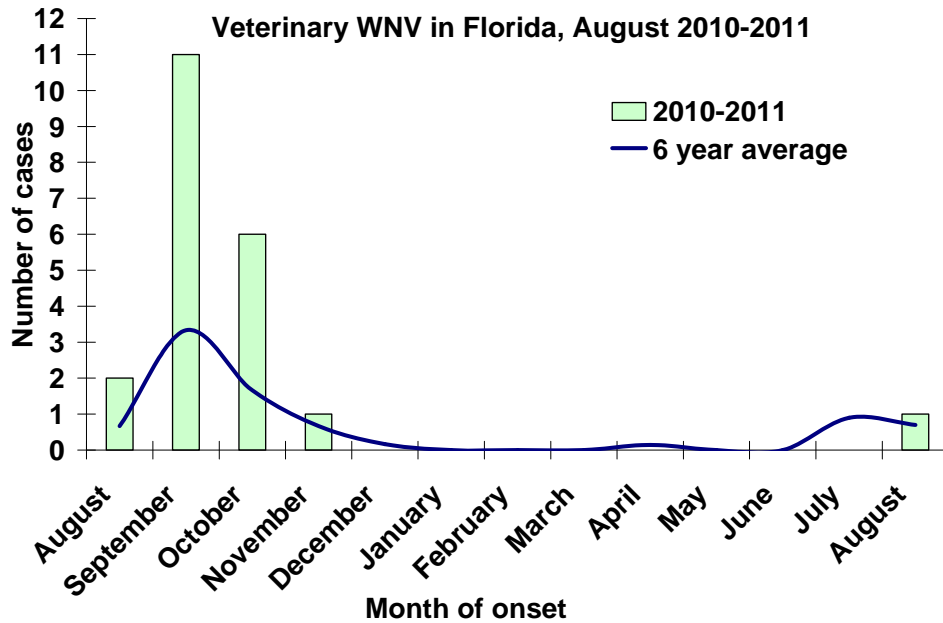
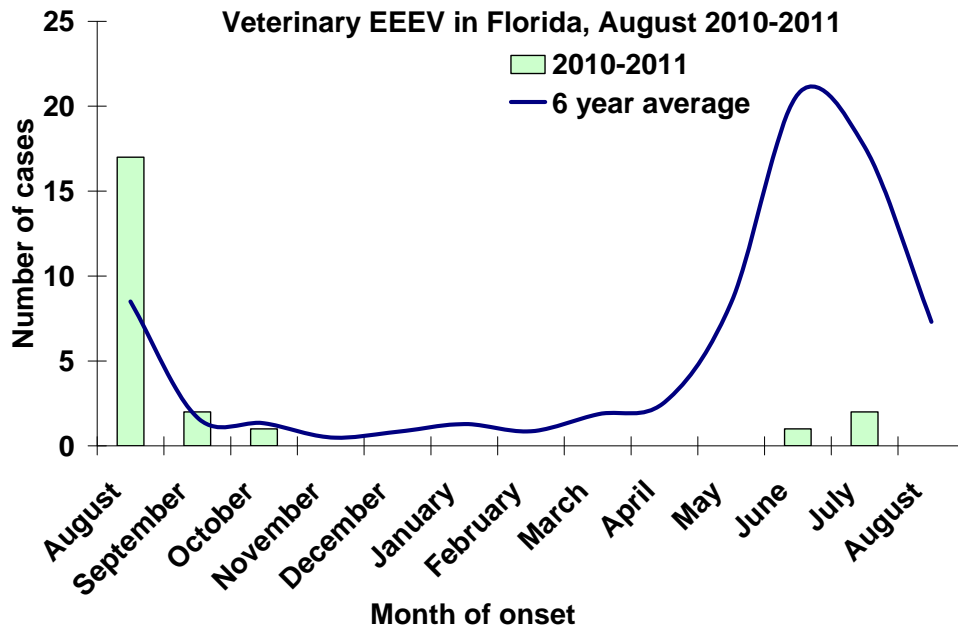
Dengue Acquired in Florida: In 2011, two cases of locally acquired dengue have been reported in Miami-Dade and Martin counties.

Imported Dengue: Twenty-two 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, Bahamas (3), Bangladesh (2), Brazil (2), Colombia, Guyana, Haiti, India, Nicaragua, Puerto Rico (5), St Lucia, Trinidad, Turks and Caicos Islands and Venezuela. Counties reporting cases were Broward (3), Gulf, Hendry, Marion, Martin, Miami-Dade (4), Orange, Palm Beach (6), Pasco, Pinellas, St. Johns and Washington.

Imported Malaria: Sixty-eight imported cases of malaria with onset in 2011 have been reported. Countries of origin were: Afghanistan (3), Brazil, Cameroon, East Timor, Ethiopia (2), Eritrea (2), Gabon, Ghana (3), Guinea Conakry, Guyana, Haiti (18), Honduras (3), India (13), Kenya, Liberia (2), Libya, Mali (2), Nigeria (5), Pakistan, Peru, Rwanda, Uganda (3) and Venezuela. Counties reporting cases were: Alachua (2), Brevard (4), Broward (8), Citrus, Collier (2), Duval (6), Escambia, Hillsborough (5), Indian River, Lee (3), Leon (2), Miami-Dade (15), Manatee (3), Okaloosa, Orange (3), Palm Beach (5), Pasco, Pinellas, Seminole, St. Johns and St. Lucie (2).

Veterinary Cases

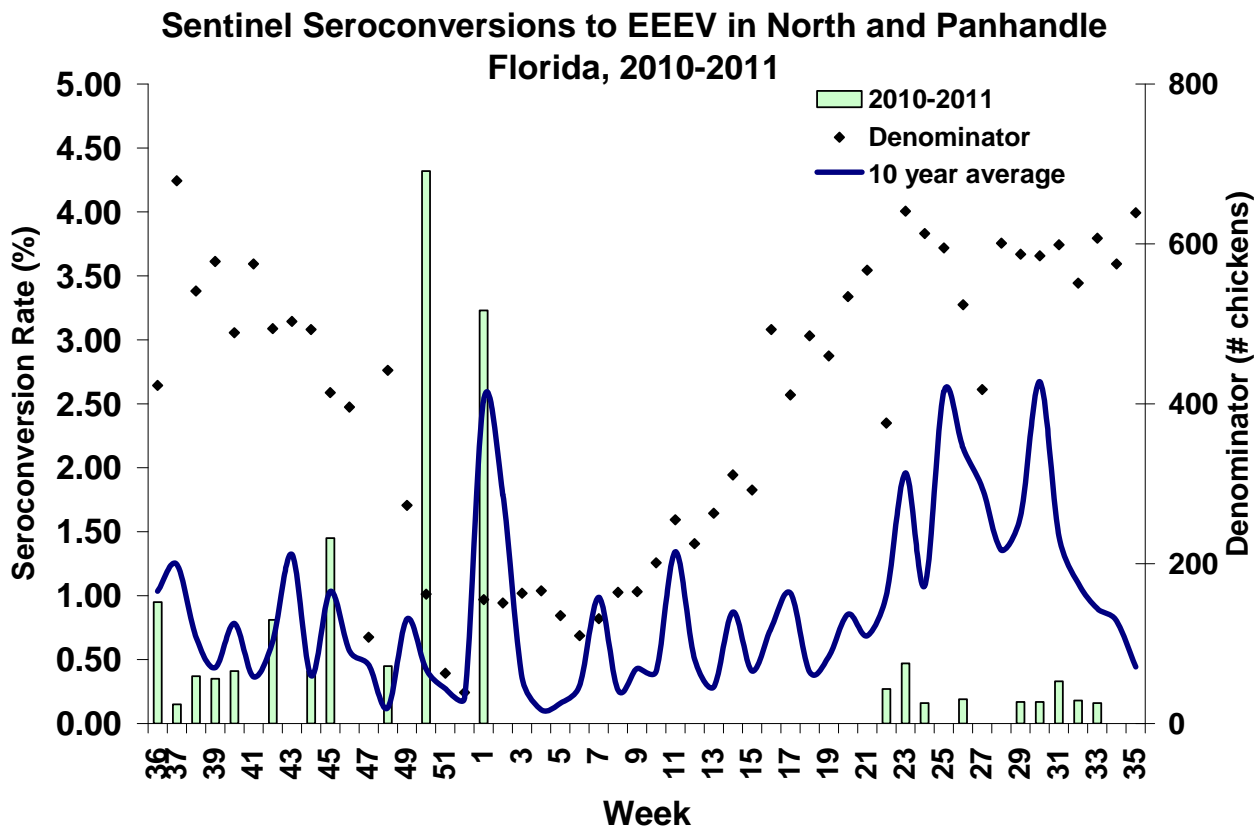
No positive horses were reported this week.

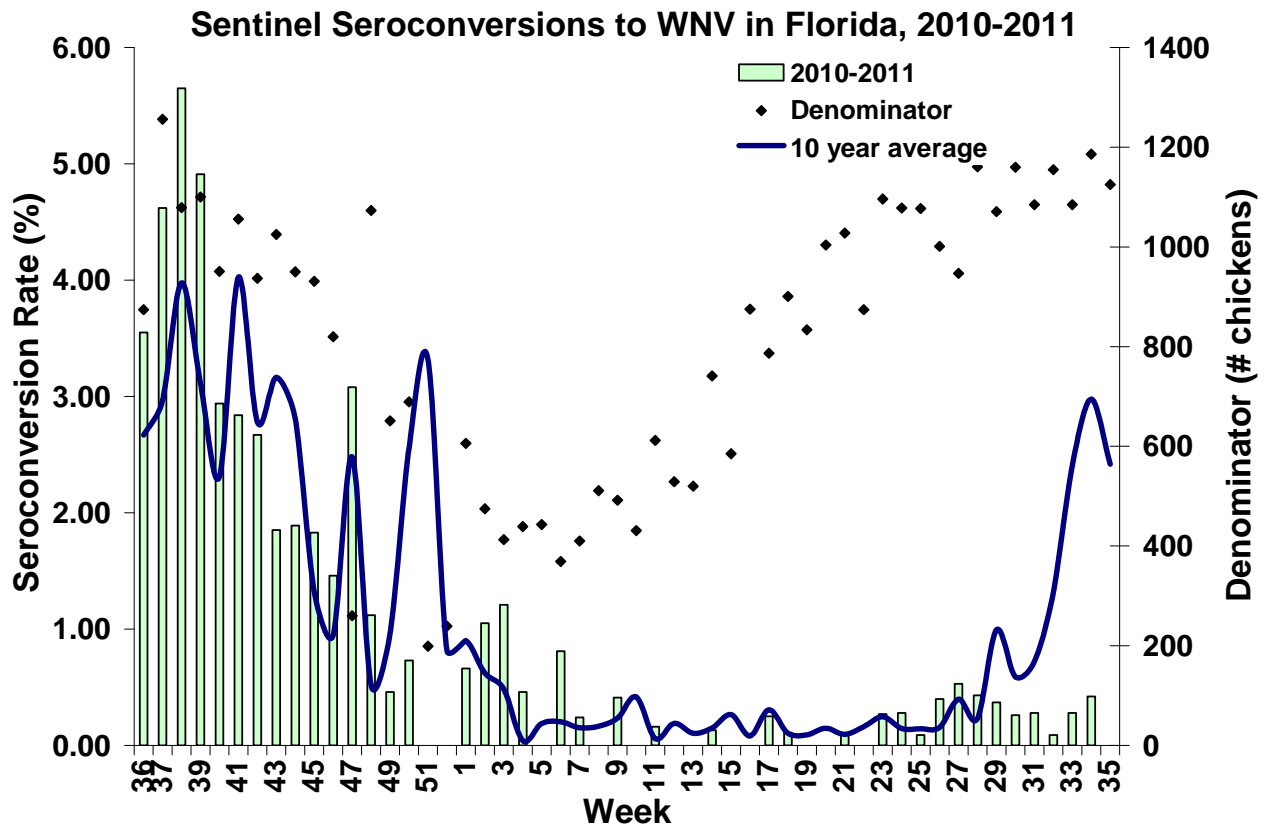


Sentinel Chickens

Eight sentinel chickens in Indian River, Leon, Orange and Sarasota counties tested positive for antibodies to WNV. Four sentinel chickens in Pinellas County tested positive for antibodies to SLEV. Seroconversion rates are calculated by week and include previously reported results.

| County | Collection Date | Seroconversion Rates (%) | | | | Week | County Totals | |
|--------------|-----------------|--------------------------|------|------|-----|--------|----------------------|--|
| | | SLEV | WNV | EEEV | HJV | | YTD | |
| Indian River | 08/18/11 | | 2.08 | | | 1 WNV | 2 WNV, 1 SLEV | |
| Leon | 08/23/11 | | 9.52 | | | 4 WNV | 4 WNV | |
| Orange/Reedy | 08/18/11 | | 5.13 | | | 2 WNV | 3 EEEV, 2 HJV, 9 WNV | |
| Pinellas | 07/18/11 | 1.79 | | | | 1 SLEV | 1 SLEV | |
| Pinellas | 08/22/11 | 5.36 | | | | 3 SLEV | 4 SLEV | |
| Sarasota | 08/22/11 | | 1.25 | | | 1 WNV | 9 WNV | |





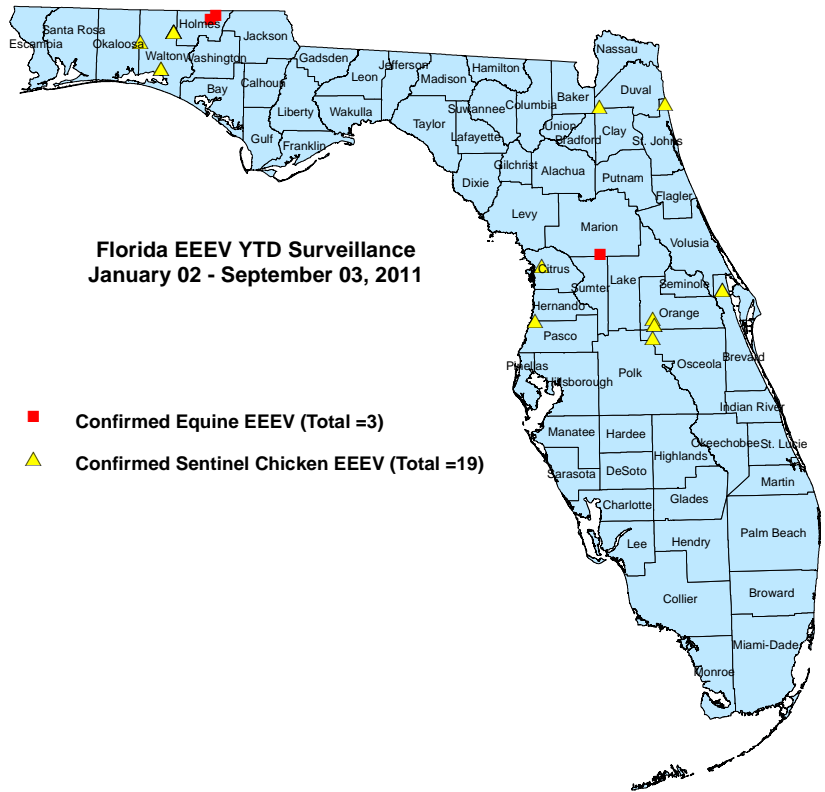
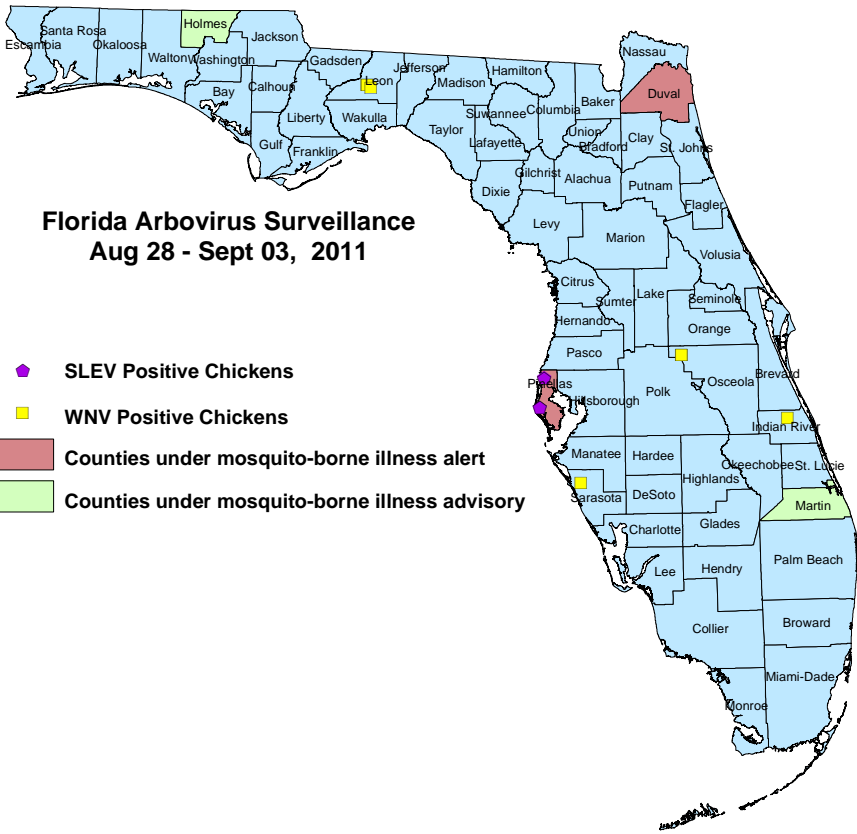
Live Wild Birds

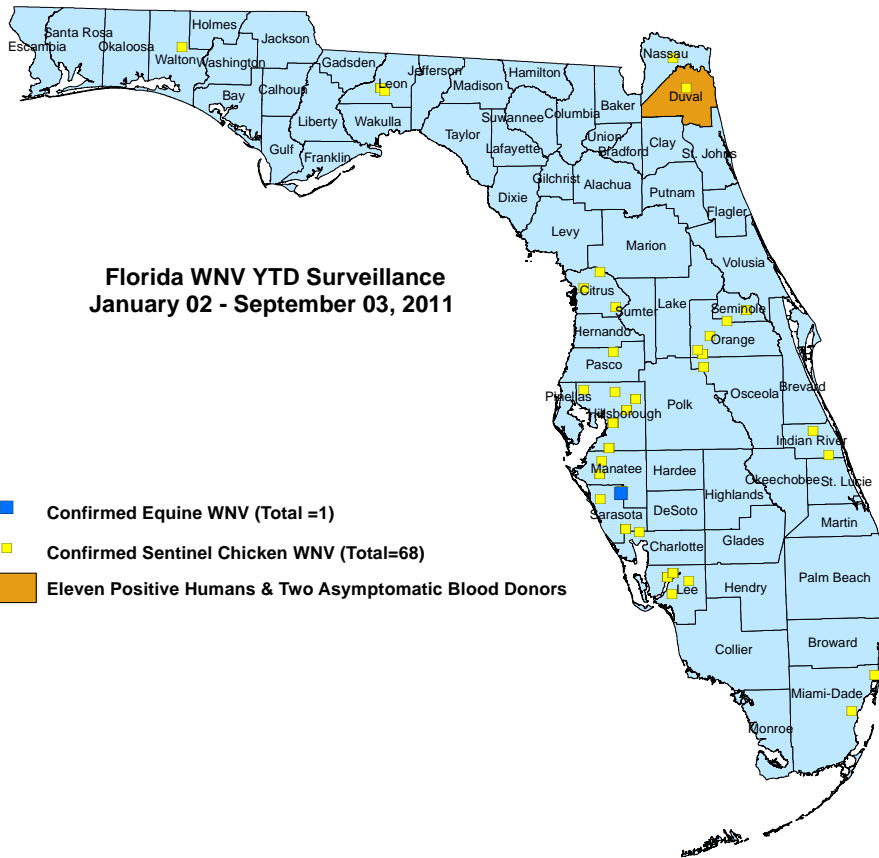
No positive live wild birds were reported this week.

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, three reports representing three dead birds were received from two counties. One bird was identified as raptor; none were identified as crows or jays. In 2011, two hundred and twenty-two reports representing a total of 684 dead birds (30 crows, 37 jays, 49 raptors, 568 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





**Florida WNV YTD Surveillance
January 02 - September 03, 2011**

- Confirmed Equine WNV (Total =1)
- Confirmed Sentinel Chicken WNV (Total=68)
- Eleven Positive Humans & Two Asymptomatic Blood Donors

YTD Arbovirus Activity by County

| County | Arbovirus Activity |
|---------------------|---|
| Brevard | EEEV: 2 sentinels (5/20, 5/27) |
| Citrus | WNV: 3 sentinels (1/3, 1/11) EEEV: 1 sentinel (8/15) |
| Charlotte | WNV: 1 sentinel (7/1) |
| Dade | WNV: 2 sentinels (1/18, 6/22) |
| Duval | EEEV: 1 sentinel (6/11) WNV: 13 humans (1 June, 7 July, 3 Aug, 2 positive blood donors); 1 sentinel (7/15) |
| Hernando | WNV : 1 sentinel (8/1) EEEV: 1 sentinel (6/6) |
| Hillsborough | WNV: 14 sentinels (1/4, 1/11, 1/18, 1/25, 2/9, 3/1, 7/19) |
| Holmes | EEEV: 2 horses (7/3, 7/6) |
| Indian River | WNV: 2 sentinels (4/28, 8/18), SLEV: 1 sentinel (6/23) |
| Lee | WNV: 10 sentinels (6/13, 6/27, 7/11, 7/25) |
| Leon | WNV: 4 sentinels (8/23) |
| Manatee | WNV: 3 sentinels (4/4, 7/20) |
| Marion | EEEV: 1 horse (6/21) |
| Nassau | WNV: 1 sentinel (8/1) |

| | |
|-------------------|---|
| | 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: 13 sentinels (1/3, 1/18, 1/24, 7/7, 7/14, 7/28, 8/1, 8/11, 8/18) EEEV: 4 sentinels (6/2, 6/9, 6/27, 7/28) HJV: 2 sentinels (2/24, 7/7) |
| Pinellas | SLEV: 4 sentinels (7/18, 8/22) |
| 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: 9 sentinels (1/4, 2/14, 3/14, 4/25, 5/2, 6/27, 7/5, 7/18, 8/22); 1 horse (8/12) |
| Seminole | WNV: 3 sentinels(6/7) |
| St. Johns | EEEV: 1 sentinel (6/13) |
| Walton | EEEV: 9 sentinels (1/6, 7/18, 8/1, 8/8) ; 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

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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.