



Florida Arbovirus Surveillance Week 35: August 26-September 1, 2012

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 August 26-September 1, 2012, the following arboviral activity was recorded in Florida:

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

EEEV activity: One horse case of EEE was reported in Gulf County. One sentinel chicken in Orange County tested positive for antibodies to EEEV. In 2012, positive samples from 1 human, 19 equines, and 41 sentinel chickens have been received from 22 counties.

WNV activity: Nine human cases of WNV infection were reported in Duval (5), Escambia (2), Hillsborough, and Okaloosa counties. Eighteen sentinel chickens in Bay, Duval, Nassau, St. Johns, and Walton counties tested positive for antibodies to WNV. In 2012, positive samples from 28 humans, 1 horse, and 124 sentinel chickens have been received from 20 counties.

SLEV activity: No SLEV activity was reported this week. In 2012, positive samples from six sentinel chickens have been received from 4 counties

HJV activity: No HJV activity was reported this week. In 2012, positive samples from 12 sentinel chickens have been received from 6 counties.

Advisories/Alerts: Hillsborough and Okaloosa counties issued mosquito-borne illness advisories this week in response to WNV activity. Duval and Escambia counties are currently under mosquito-borne illness alerts. Bay, Holmes, Jefferson, Leon, St. Johns, Walton, and Washington counties are under mosquito-borne illness advisories. No other counties are currently under mosquito-borne illness advisory or alert.

Year to Date Human Case Summary*

EEEV Infection Acquired in Florida: One human case of EEEV infection with onset in June was reported in 2012 in a Holmes County resident who also spent time in Washington County.

WNV Infection Acquired in Florida: Twenty human cases of WNV infection with onset in June (4), July (7), and August (9) were reported in 2012 in Duval County, three of which were presumptive positive blood donors who later developed symptoms. Five human cases of WNV infection with onset in July (2) and August (3) and a presumptive positive blood donor were reported in Escambia County. One case with onset in August was reported in each of the following counties: Hillsborough, Okaloosa, and Leon (Leon County resident also spent time in Jefferson County). Two Florida residents in Broward and Manatee counties obtained WNV infection in New York and an unknown location outside Florida. Two human cases of WNV infection in non-Florida residents who traveled to Florida were acquired in Oklahoma and South Carolina.

Imported Dengue: Forty-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

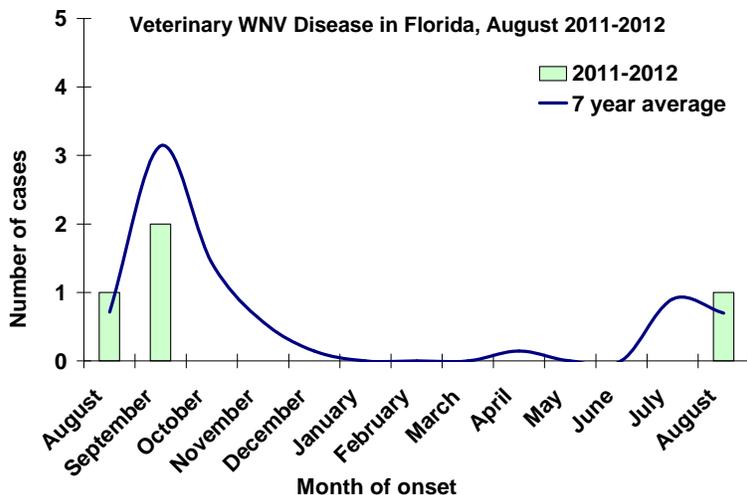
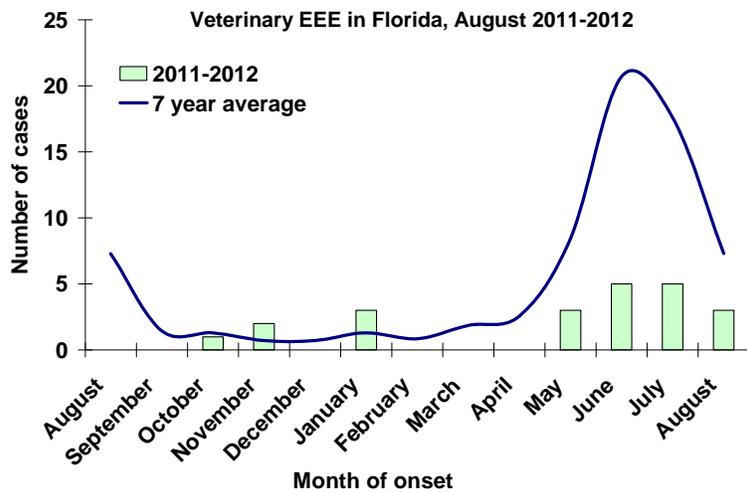
were Brazil, Colombia, Cuba (7), Dominican Republic (6), Ecuador (3), Ghana, Guyana, Haiti (7), Jamaica (8), Mexico, Puerto Rico (4), South Africa, Sri Lanka, Suriname, Trinidad (2), and Turks & Caicos. Counties reporting cases were Brevard, Broward (9), Collier, Duval, Hillsborough (2), Lake, Lee, Miami-Dade (16), Orange (6), Palm Beach (2), Pinellas, Polk, Sarasota (2), and Seminole (2). Eight of the cases were reported in non-Florida residents.

Imported Malaria: Forty-four imported cases of malaria with onset in 2012 have been reported. Countries of origin were: Afghanistan (2), Cameroon, Central African Republic, Colombia, Ethiopia, Ghana (5), Guyana (2), Haiti (8), Honduras (2), India, Ivory Coast (3), Liberia, Nigeria (5), Pakistan, Uganda, Sierra Leone (2), South Africa, Sub Saharan Africa, Sudan, Togo, Zambia, and multiple African countries (2). Counties reporting cases were: Alachua, Brevard, Broward (8), Charlotte, Duval (5), Hillsborough (3), Lake (2), Leon, Manatee, Marion, Miami-Dade (6), Orange (4), Osceola (2), Palm Beach (3), Pinellas (3), Polk, and Seminole. Five of the cases were reported in non-Florida residents.

Veterinary Cases

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

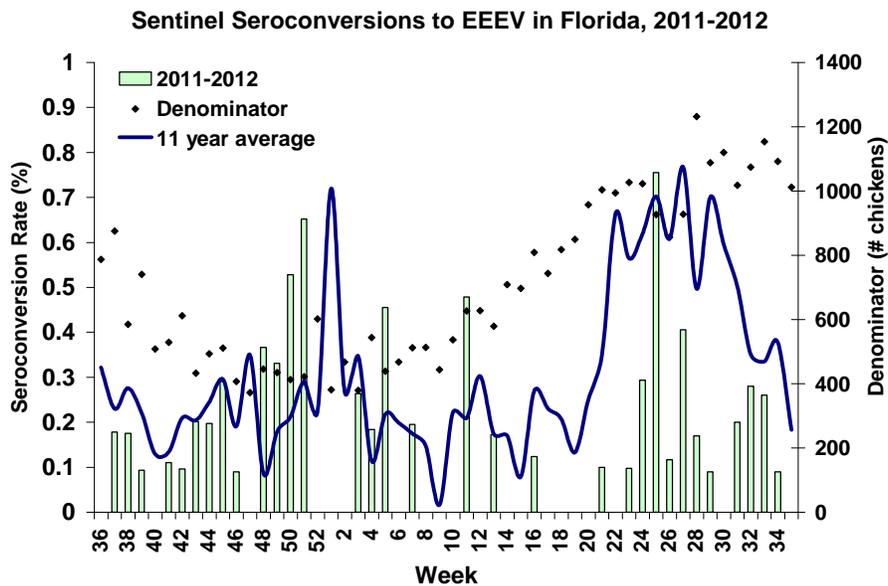
County	Onset Date	Species	Virus	Status	County YTD
Gulf	08/21/12	Equine	EEEV	Euthanized	1 EEEV

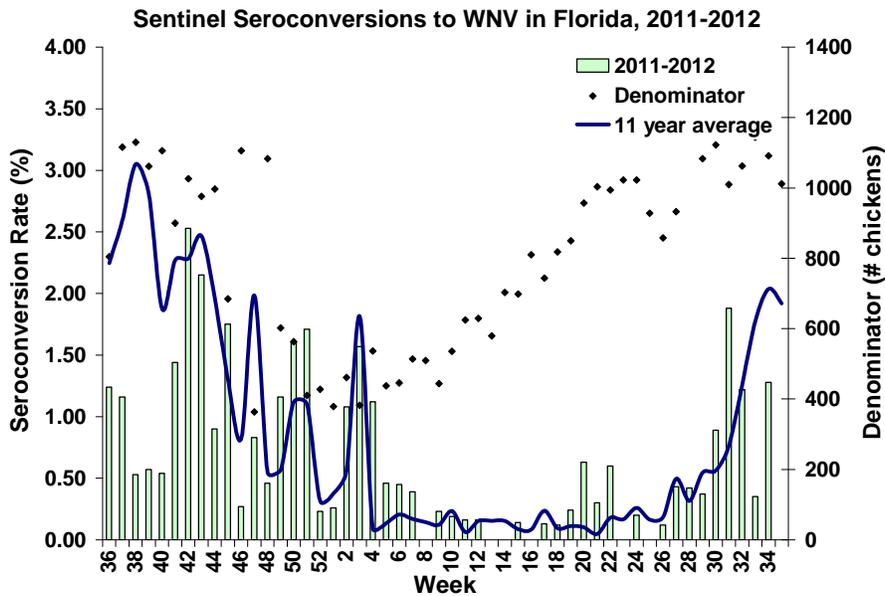


Sentinel Chickens

One sentinel in Orange County tested positive for antibodies to EEEV and 18 sentinels in Bay, Duval, Nassau, St. Johns, and Walton counties tested positive for antibodies to WNV. Seroconversion rates are calculated by week and include previously reported results.

County	Collection Date	Seroconversion Rates (%)				County Totals	
		SLEV	WNV	EEEV	HJV	Week	YTD
Bay	08/21/12		13.3			2 WNV	10 WNV, 1 EEEV, 1 HJV
	08/07/12		21.4			3 WNV	
Duval	08/20/12		3.9			1 WNV	
	08/03/12		20.83			5 WNV	7 WNV
Nassau	08/06/12		2.9			1 WNV	1 WNV, 3 EEEV, 2 HJV
Orange	08/20/12			0.9		1 EEEV	10 WNV, 15 EEEV
St. Johns	08/20/12		8.9			5 WNV	17 WNV, 2 HJV
Walton	08/20,21/12		7.7			6 WNV	39 WNV, 12 WNV, 5 HJV



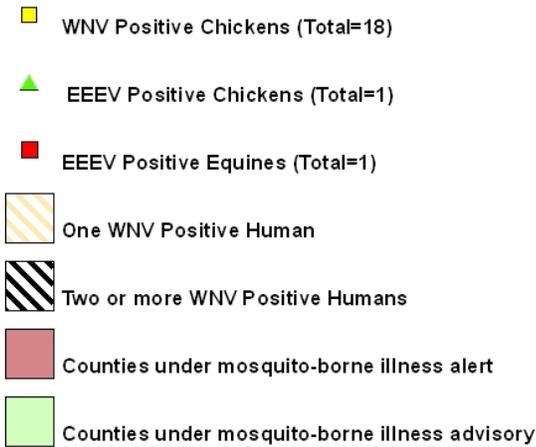


Dead Birds

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, 9 reports representing 24 dead birds were received from 8 counties. One was identified as a jay; none were identified as crows or raptors. In 2012, 320 reports representing a total of 1042 dead birds (37 crows, 27 jays, 51 raptors) were received from 52 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/

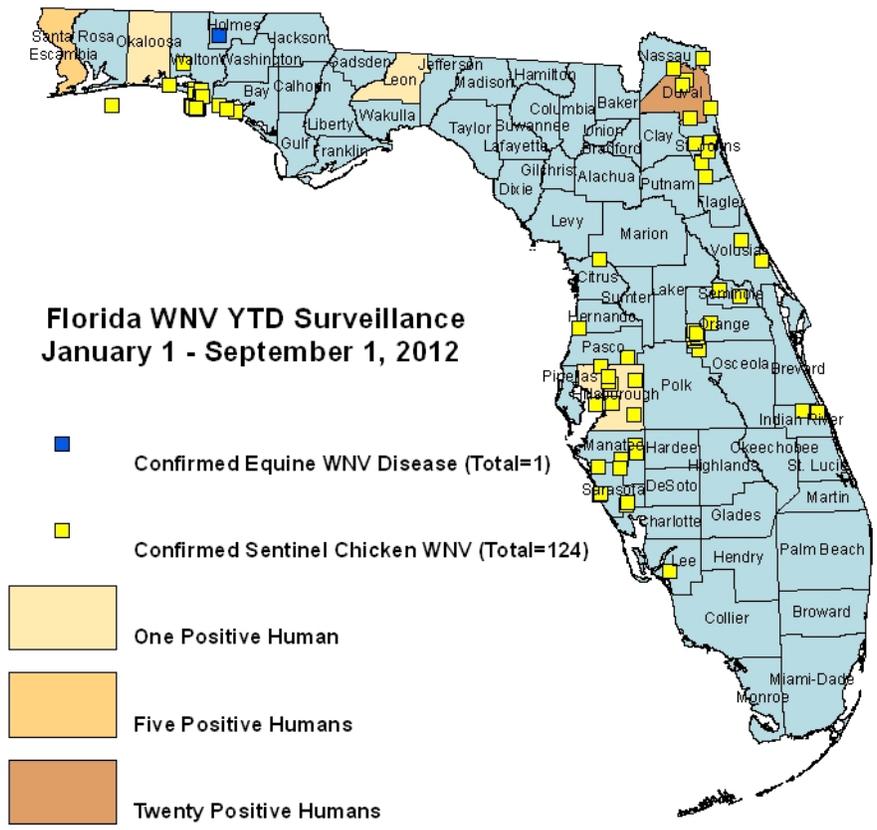
Maps

Florida Arbovirus Surveillance August 26-September 1, 2012



Florida EEEV YTD Surveillance January 1 - September 1, 2012





Arbovirus Activity by County

County	Arbovirus Activity
Alachua	EEEV : 1 horse (7/27) ; 1 sentinel (7/9)
Bay	EEEV : 1 sentinel (7/10) WNV : 10 sentinels (7/24, 7/31, 8/7, 8/14, 8/21) HJV : 1 sentinel (5/29)
Baker	EEEV : 1 horse (6/21)
Citrus	EEEV : 1 sentinel (1/30) WNV: 1 sentinel (5/29) HJV: 1 sentinel (1/3)
Duval	WNV: 20 humans (4 June, 7 July, 9 August); 7 sentinels (7/30, 8/3, 8/13, 8/20)
Escambia	WNV: 5 humans (2 July, 3 August)
Flagler	EEEV: 1 sentinel (8/6) HJV: 1 sentinel (7/30)
Glades	EEEV: 2 horses (6/25, 7/14)
Gulf	EEEV: 1 horse (8/21)
Hernando	WNV: 1 sentinel (1/23)
Hillsborough	EEEV : 4 sentinels (2/14, 3/13, 4/17) WNV: 1 human (August); 13 sentinels (1/3, 1/17, 1/24, 1/31, 2/14, 3/6, 6/12) SLEV: 3 sentinels (1/3)
Holmes	EEEV : 1 human (June); 2 horses (5/21, 6/25) WNV : 1 horse (8/11)
Indian River	WNV: 2 sentinels (5/24, 8/9)
Jefferson	EEEV: 1 horse (8/6)
Lee	WNV: 1 sentinel (1/24) SLEV: 1 sentinel (3/7)

County	Arbovirus Activity
Leon	EEEV : 1 horse (8/21), 1 sentinel (8/13) WNV : 1 human (August)
Levy	EEEV: 2 horses (1/2)
Manatee	WNV: 4 sentinels (2/1, 3/14, 5/30, 8/15) EEEV: 1 horse (6/14)
Nassau	EEEV : 1 horse (7/18) ; 3 sentinels (6/16, 6/23) WNV : 1 sentinel (8/6) HJV : 2 sentinels (7/13)
Okaloosa	WNV : 1 human (August)
Orange	EEEV : 15 sentinels (1/5, 1/9, 1/19, 1/23, 2/6, 3/15, 3/29, 5/21, 6/14, 7/2, 8/8, 8/13, 8/20) WNV: 10 sentinels (1/9,1/12, 1/19, 1/25, 3/1, 7/26)
Osceola	EEEV : 1 horse (7/25)
Palm Beach	EEEV : 1 horse (6/20) SLEV : 1 sentinel (7/23)
Pasco	WNV : 1 sentinel (5/29)
Putnam	EEEV: 1 horse (1/1) ; 2 sentinels (7/20, 8/3)
Santa Rosa	EEEV : 1 horse (5/11)
Sarasota	WNV: 13 sentinels (1/9, 2/6, 3/19, 5/7, 5/14, 7/9, 7/16, 7/27, 8/3) SLEV: 1 sentinel (7/2)
Seminole	WNV : 2 sentinels (8/7)
St. Johns	WNV : 17 sentinels (5/14, 5/22, 5/29, 8/7, 8/20) HJV : 2 sentinels (4/30, 7/3)
Union	EEEV : 1 horse (5/12)
Volusia	WNV : 2 sentinels (5/29, 6/25)
Walton	WNV : 39 sentinels (4/9, 4/23, 4/30, 7/2, 7/3, 7/9, 7/10,7/16, 7/23, 7/30, 8/5, 8/13, 8/20, 8/21) EEEV : 12 sentinels (6/4, 6/18, 6/25, 7/2, 7/30) HJV : 5 sentinels (5/14, 6/11, 6/18, 7/16, 7/23)
Washington	EEEV : 1 horse (7/1)

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>

For arbovirus surveillance information for the United States, please see the Centers for Disease Control and Prevention website at:

<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>

*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

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 provided by the Department of Agriculture and Consumer Services.