



Florida Arbovirus Surveillance Week 33: August 12-18, 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 12-18, 2012, the following arboviral activity was recorded in Florida:

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

EEEV activity: One horse case of EEE was reported in Jefferson County. Two sentinel chickens in Putnam and Walton counties tested positive for antibodies to EEEV. In 2012, positive samples from 1 human, 17 equines and 34 sentinel chickens have been received from 19 counties.

WNV activity: Two human cases of WNV infection were reported in Duval County and two were reported in Escambia County. Fourteen sentinel chickens in Bay, Duval, St. Johns, Sarasota, and Walton counties tested positive for antibodies to WNV. In 2012, positive samples from 13 humans and 97 sentinel chickens have been received from 15 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: Two sentinel chickens in Flagler and Walton counties tested positive for antibodies to HJV. In 2012, positive samples from 12 sentinel chickens have been received from 6 counties.

Advisories/Alerts: Escambia County issued a mosquito-borne illness alert this week in response to two human cases of WNV illness. Duval County is currently under a mosquito-borne illness alert. Holmes, 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: Eleven human cases of WNV infection with onset in June (4), July (5), and August (2) were reported in 2012 in Duval County, one of which was a presumptive positive blood donor who later developed symptoms. Two human cases of WNV infection with onset in July and August were reported in Escambia County. One human case of WNV infection acquired in Oklahoma was reported in a non-Florida resident who traveled to Florida.

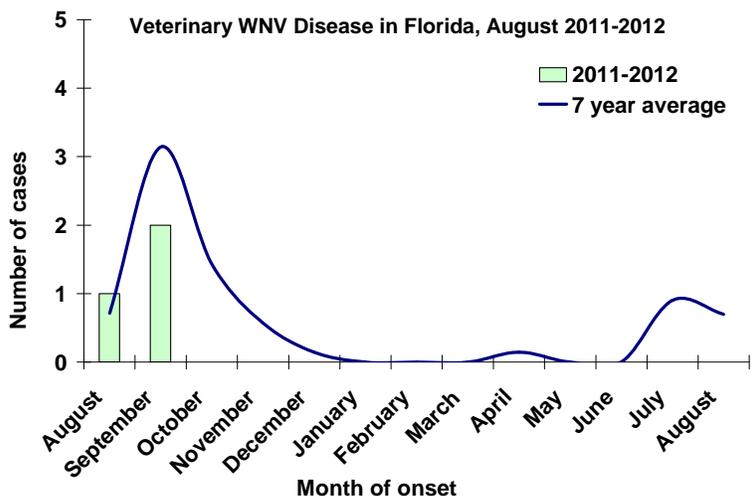
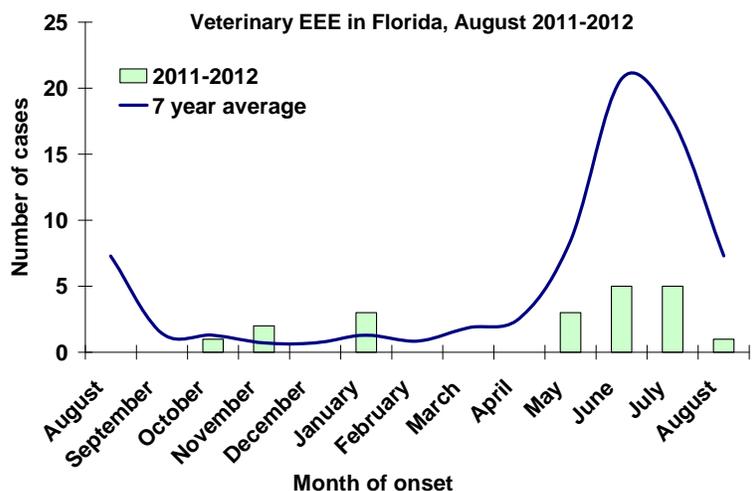
Imported Dengue: Forty-two cases of dengue with onset in 2012 have been reported in individuals with travel history to a dengue endemic country in the two weeks prior to onset. Countries of origin were Brazil, Colombia, Cuba (6), Dominican Republic (5), Ecuador (3), Ghana, Guyana, Haiti (7), Jamaica (6), Mexico, Puerto Rico (4), South Africa, Sri Lanka, Suriname, Trinidad (2), and Turks & Caicos. Counties reporting cases were Brevard, Broward (8), Collier, Duval, Hillsborough (2), Lake, Lee, Miami-Dade (13), 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-one imported cases of malaria with onset in 2012 have been reported. Countries of origin were: Afghanistan, Cameroon, Central African Republic, Colombia, Ethiopia, Ghana (5), Guyana (2), Haiti (8), Honduras (2), India, Ivory Coast (2), 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 (4), Hillsborough (3), Lake (2), Leon, Marion, Miami-Dade (6), Orange (4), Osceola (2), Palm Beach (3), Pinellas (3), and Seminole. Five of the cases were reported in non-Florida residents.

Veterinary Cases

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

County	Onset Date	Species	Virus	Status	County YTD
Jefferson	08/06/12	Equine	EEEV	Euthanized	1 EEEV

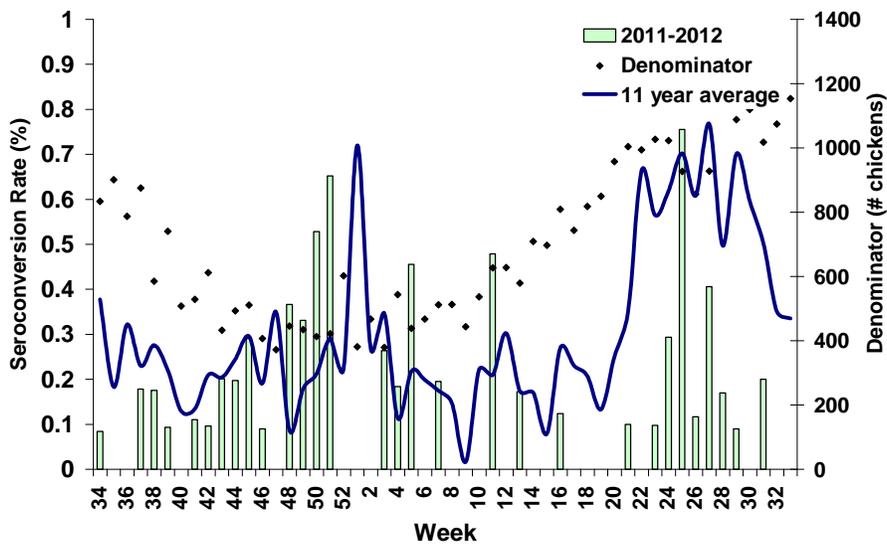


Sentinel Chickens

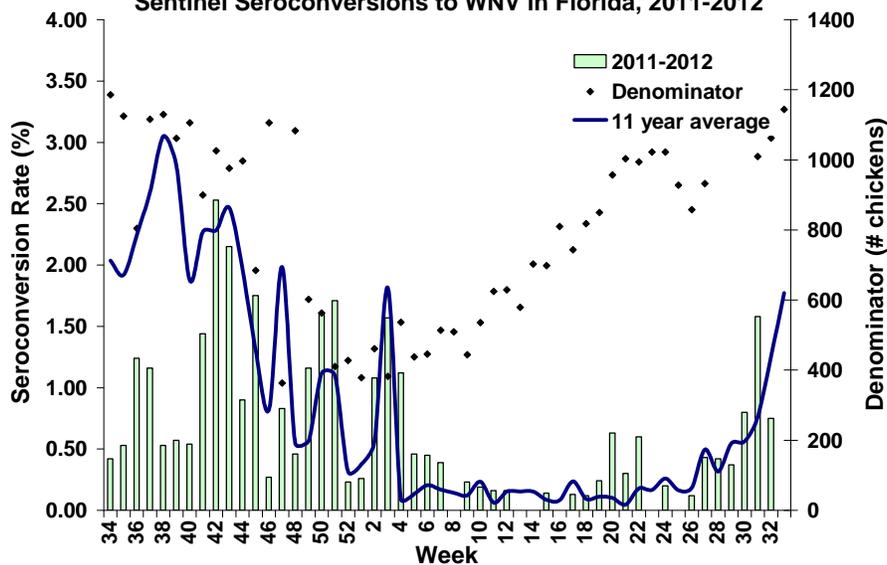
Two sentinels in Putnam and Walton counties tested positive for antibodies to EEEV, 14 sentinels in Bay, Duval, St. Johns, Sarasota, and Walton counties tested positive for antibodies to WNV, and 2 sentinels in Flagler and Walton counties tested positive for antibodies to HJV. Seroconversion rates are calculated by week and include previously reported results.

County	Collection Date	Seroconversion Rates (%)				County Totals	
		SLEV	WNV	EEEV	HJV	Week	YTD
Walton	08/07/12		3.0			3 WNV	31 WNV,
	07/30/12		8.70	1.0		8 WNV, 1 EEEV	12 EEEV, 5 HJV
	07/23/12		5.6		0.9	6 WNV, 1 HJV	
Bay	08/07/12		14.3			2 WNV	6 WNV, 1 EEEV, 1 HJV
St. Johns	08/05/12		5.1			3 WNV	12 WNV, 2 HJV
Sarasota	08/03/12		4.0			3 WNV	13 WNV, 1 SLEV
Duval	08/03/12		4.17			1 WNV	3 WNV
Putnam	08/03/12			9.1		1 EEEV	2 EEEV
Flagler	07/30/12				8.3	1 HJV	1 HJV

Sentinel Seroconversions to EEEV in Florida, 2011-2012



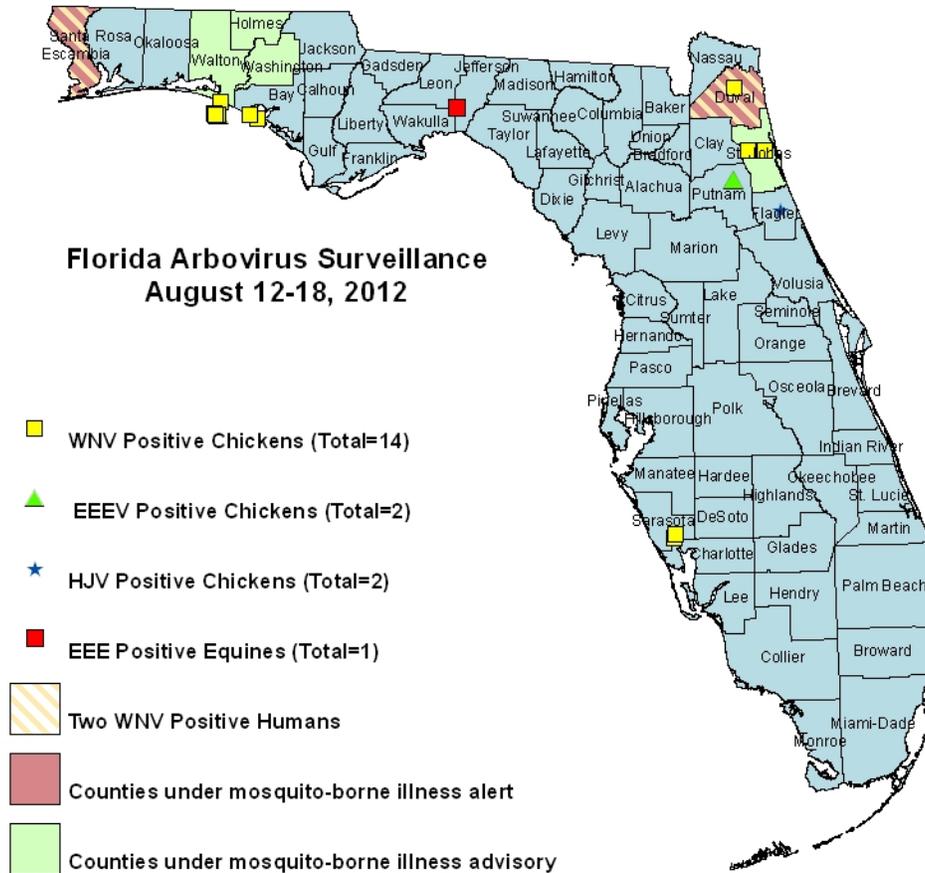
Sentinel Seroconversions to WNV in Florida, 2011-2012

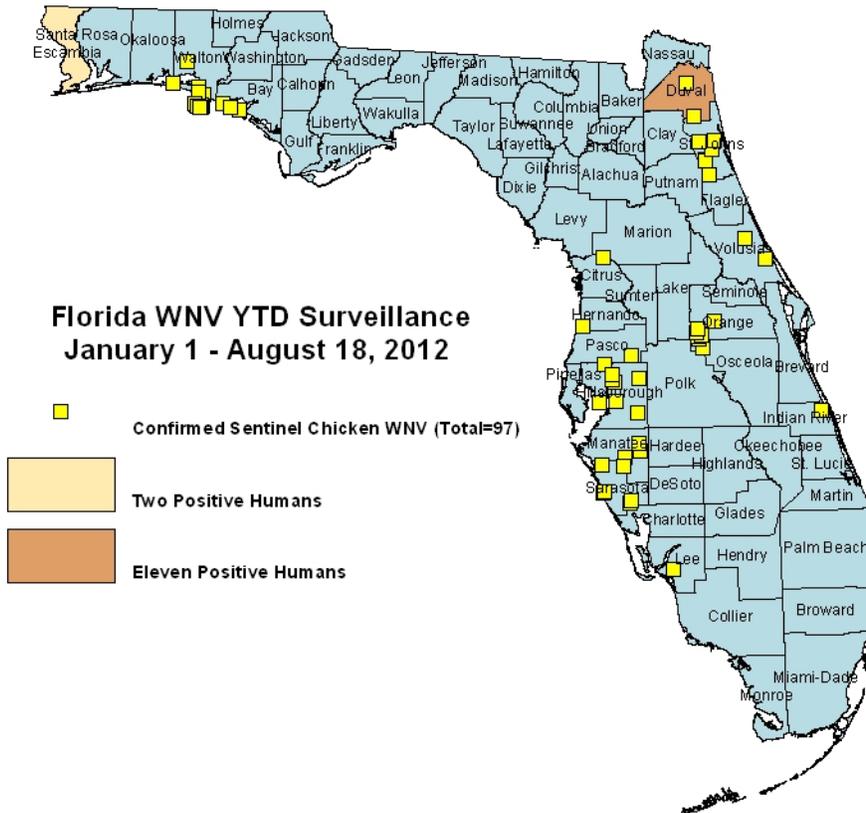
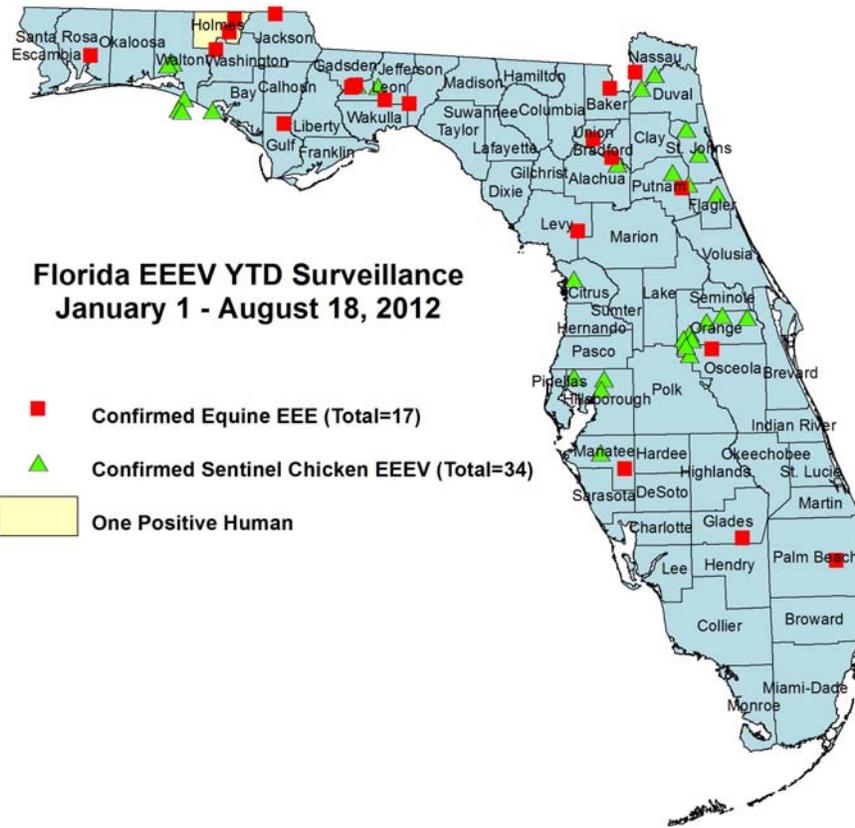


Dead Birds

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 6 counties. One was identified as a crow, two as jays, and one as a raptor. In 2012, 299 reports representing a total of 964 dead birds (34 crows, 13 jays, 50 raptors) were received from 50 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





Arbovirus Activity by County

County	Arbovirus Activity
Alachua	EEEV : 1 horse (7/27) ; 1 sentinel (7/9)
Bay	EEEV : 1 sentinel (7/10) WNV : 6 sentinels (7/24, 7/31, 8/7) 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: 11 humans (4 June, 5 July, 2 August); 3 sentinels (7/30, 8/3)
Escambia	WNV: 2 humans (July, August)
Flagler	HJV: 1 sentinel (7/30)
Glades	EEEV: 2 horses (6/25, 7/14)
Hernando	WNV: 1 sentinel (1/23)
Hillsborough	EEEV : 4 sentinels (2/14, 3/13, 4/17) WNV: 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)
Indian River	WNV: 1 sentinel (5/24)
Jefferson	EEEV: 1 horse (8/6)
Lee	WNV: 1 sentinel (1/24) SLEV: 1 sentinel (3/7)
Levy	EEEV: 2 horses (1/2)
Manatee	WNV: 3 sentinels (2/1, 3/14, 5/30) EEEV: 1 horse (6/14)
Nassau	EEEV : 1 horse (7/18) ; 3 sentinels (6/16, 6/23) HJV : 2 sentinels (7/13)
Orange	EEEV : 10 sentinels (1/5, 1/9, 1/19, 1/23, 2/6, 3/15, 3/29, 5/21, 6/14, 7/2) WNV: 9 sentinels (1/9, 1/12, 1/19, 1/25, 3/1)
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)
St. Johns	WNV : 12 sentinels (5/14, 5/22, 5/29, 8/5) HJV : 2 sentinels (4/30, 7/3)
Union	EEEV : 1 horse (5/12)
Volusia	WNV : 2 sentinels (5/29, 6/25)
Walton	WNV : 31 sentinels (4/9, 4/23, 4/30, 7/2, 7/3, 7/9, 7/10, 7/16, 7/23, 7/30, 8/7) 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>

*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.