



Florida Arbovirus Surveillance Week 31: July 29-August 4, 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 July 29-August 4, 2012, the following arboviral activity was recorded in Florida:

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

EEEV activity: Three equine cases of EEE were reported in Nassau, Alachua, and Osceola counties. In 2012, positive samples from 1 human, 16 equines and 31 sentinel chickens have been received from 18 counties

WNV activity: Four human cases of WNV infection were reported in Duval County. Ten sentinel chickens in Walton and Bay counties tested positive for antibodies to WNV. In 2012, positive samples from five humans and 70 sentinel chickens have been received from 14 counties.

SLEV activity: One sentinel chicken in Palm Beach County tested positive for antibodies to SLEV. In 2012, positive samples from six sentinel chickens have been received from four counties

HJV activity: Three sentinel chickens in Walton and Nassau counties tested positive for antibodies to HJV. In 2012, positive samples from ten sentinel chickens have been received from five counties.

Advisories/Alerts: Duval County issued a mosquito-borne illness alert this week in response to multiple human cases of WNV infection. 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. The Centers for Disease Control and Prevention issued a press release this week in response to higher than expected levels of WNV nationwide.

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.

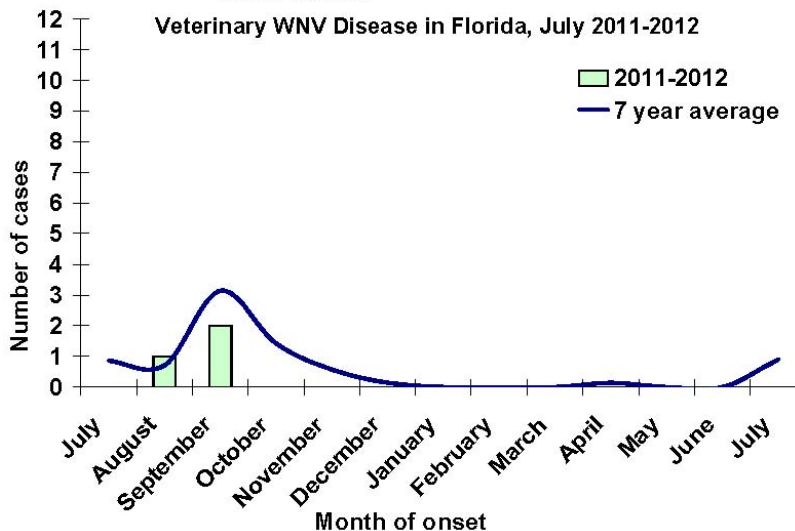
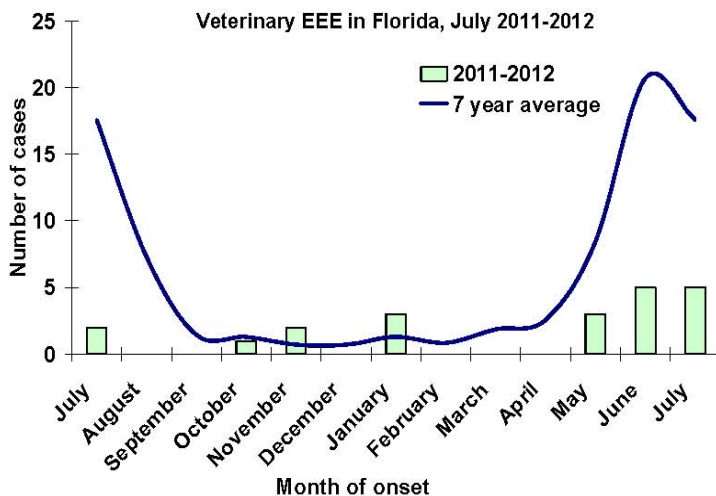
WNV Infection Acquired in Florida: Five human cases of WNV infection with onset in June (2) and July (3) were reported in 2012 in Duval County. One human case of WNV infection acquired in Oklahoma was reported in a non-Florida resident who traveled to Florida.

Imported Dengue: Thirty-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 (4), Dominican Republic (5), Ecuador (3), Ghana, Guyana, Haiti (5), Jamaica (2), Mexico, Puerto Rico (3), Sri Lanka, Suriname, Trinidad (2), and Turks & Caicos. Counties reporting cases were Brevard, Broward (6), Duval, Hillsborough, Lake, Lee, Miami-Dade (10), Orange (4), Palm Beach, Pinellas, Polk, Sarasota (2), and Seminole (2). Six of the cases were reported in non-Florida residents.

Imported Malaria: Thirty-eight 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 (4), Uganda, Sierra Leone (2), South Africa, Sub Saharan Africa, Togo, Zambia, and multiple African countries (2). Counties reporting cases were: Alachua, Brevard, Broward (7), Charlotte, Duval (4), Hillsborough (3), Lake (2), Leon, Marion, Miami-Dade (6), Orange (3), Osceola, Palm Beach (3), Pinellas (3), and Seminole. Three of the cases were reported in non-Florida residents.

Veterinary Cases

Three horses in Nassau, Alachua, and Osceola counties tested positive for EEEV this week.

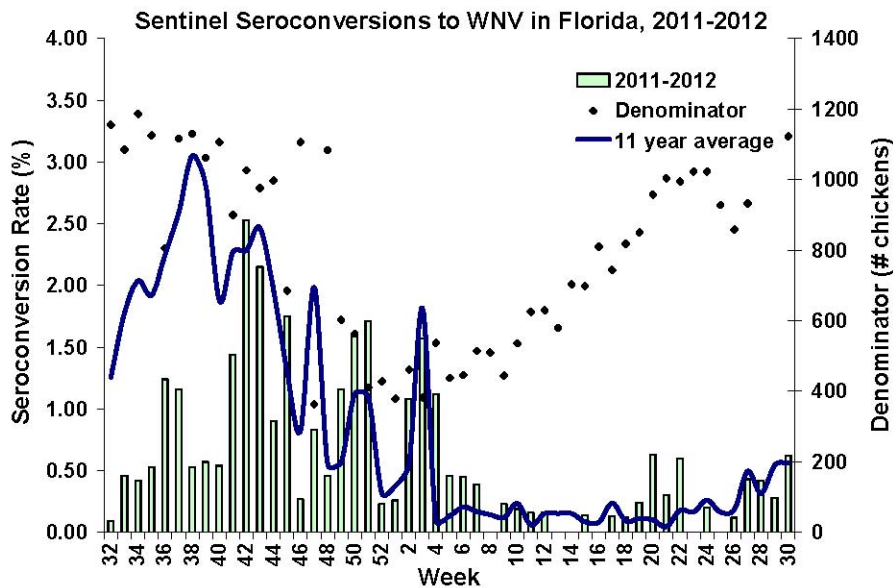
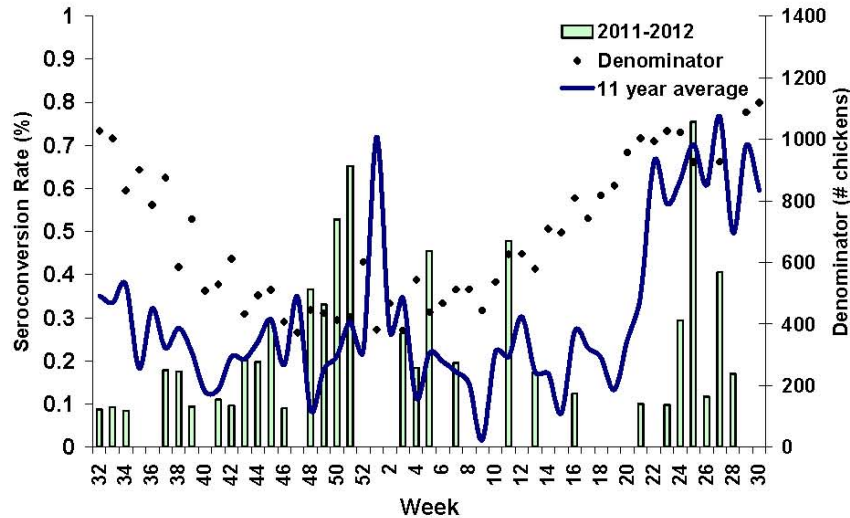


Sentinel Chickens

Ten sentinels in Walton and Bay counties tested positive for antibodies to WNV, one in Palm Beach County tested positive for antibodies to SLEV, and three in Walton and Nassau counties tested positive for antibodies to HJV. Seroconversion rates are calculated by week and include previously reported results.

COUNTY	DATE	SLE	WN	EEE	HJ	Week	YTD
Walton	7/23/2012		4.67			5 WNV	19 WNV, 11 EEEV, 4 HJV
Walton	7/16/2012		2.73		0.88	3 WNV, 1 HJV	
Walton	7/10/2012		3.51			4 WNV	
Walton	7/2/2012		3.57	2.75		4 WNV, 3 EEEV	
Bay	7/24/2012		11.11			2 WNV	2 WNV, 1 EEEV, 1 HJV
Nassau	7/13/2012				5.88	2 HJV	3 EEEV, 2 HJV
Palm Beach	7/23/2012	3.57				1 SLEV	1 SLEV

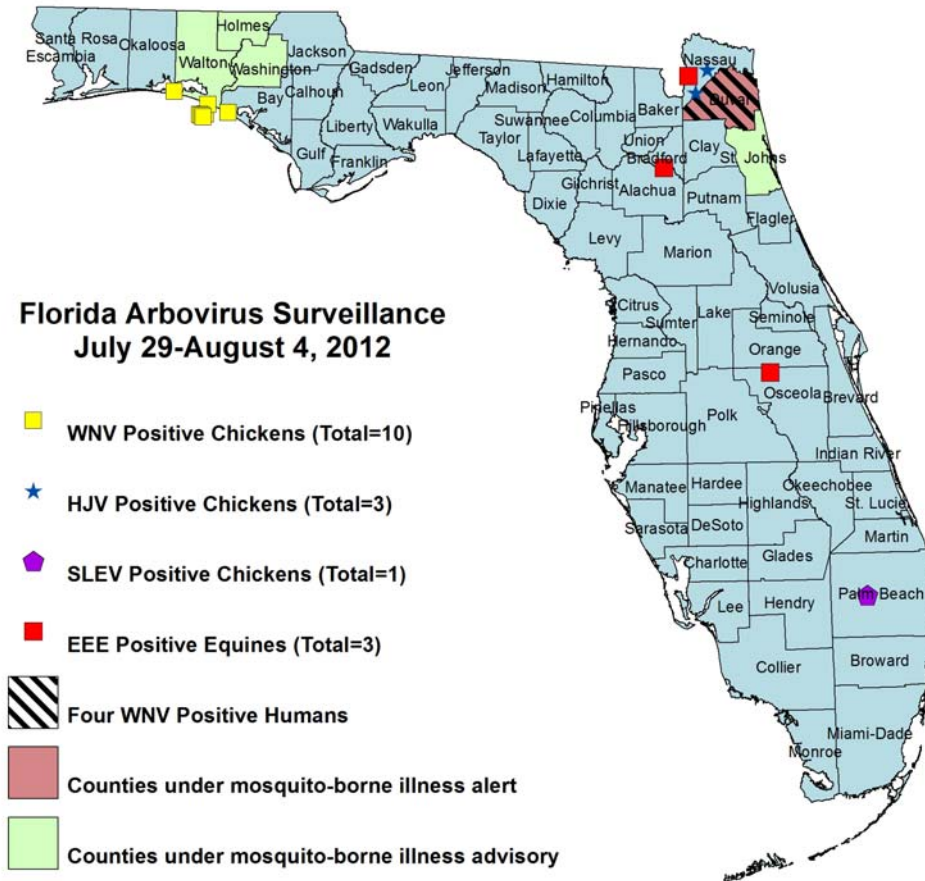
Sentinel Seroconversions to EEEV in Florida, 2011-2012

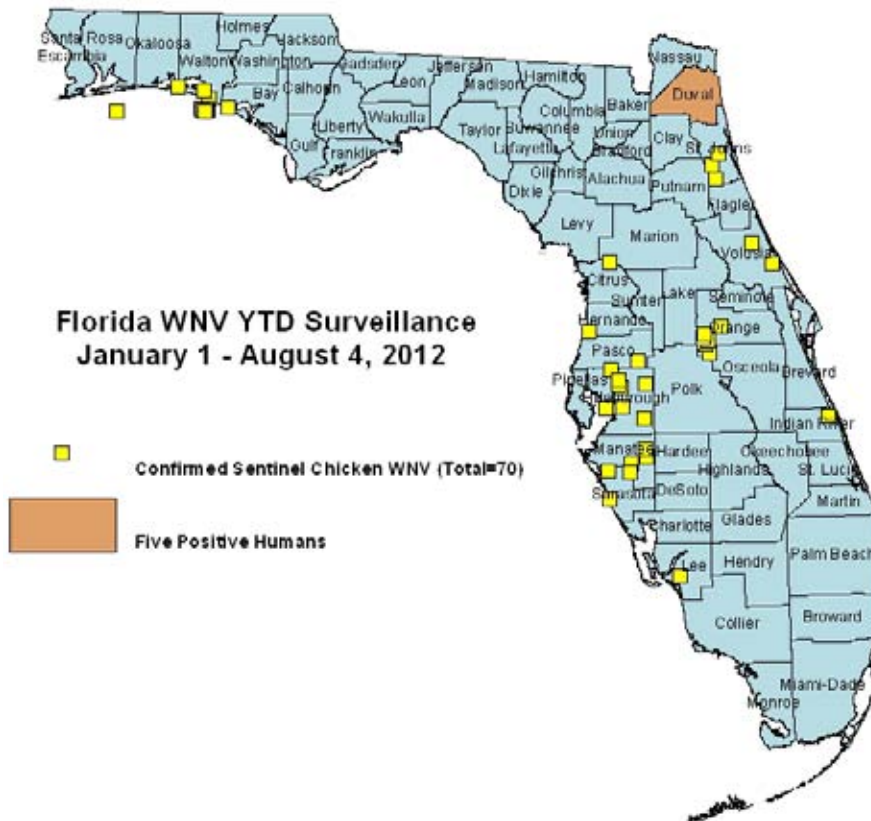
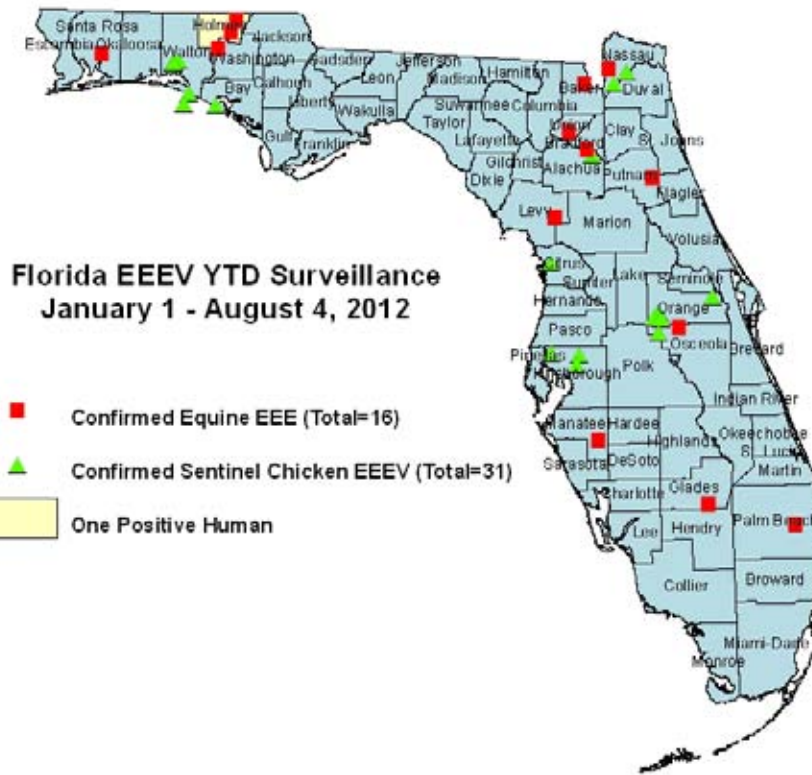


Dead Birds

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, 12 reports representing 31 dead birds were received from 8 counties. Two were identified as crows and two as jays. None were identified as raptors. In 2012, 284 reports representing a total of 925 dead birds (32 crows, 11 jays, 47 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 : 2 sentinels (7/24) 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: 5 humans (2 June, 3 July)
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)
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)
Santa Rosa	EEEV : 1 horse (5/11)
Sarasota	WNV: 8 sentinels (1/9, 2/6, 3/19, 5/7, 5/14, 7/9) SLEV: 1 sentinel (7/2)
St. Johns	WNV : 9 sentinels (5/14, 5/22, 5/29) HJV : 2 sentinels (4/30, 7/3)
Union	EEEV : 1 horse (5/12)
Volusia	WNV : 2 sentinels (5/29, 6/25)
Walton	WNV : 19 sentinels (4/9, 4/23, 4/30, 7/2, 7/3, 7/9, 7/10,7/16, 7/23) EEEV : 11 sentinels (6/4, 6/18, 6/25, 7/2) HJV : 4 sentinels (5/14, 6/11, 6/18, 7/16)
Washington	EEEV : 1 horse (7/1)

Acknowledgements and Data Sources

Contributors: Elizabeth Radke, MPH, Shaiasia Itwaru-Womack, Danielle Stanek, DVM, and Carina Blackmore, DVM, Ph.D., DOH Bureau of Environmental Public Health Medicine; Lillian Stark, Ph.D., Holly Hughes, 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
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.