



## Florida Arbovirus Surveillance Week 34: August 19-25, 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 19-25, 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 EEEV was reported in Leon County. Six sentinel chickens in Flagler, Leon, and Orange counties tested positive for antibodies to EEEV. In 2012, positive samples from 1 human, 18 equines, and 40 sentinel chickens have been received from 21 counties.

**WNV activity:** Six human cases of WNV infection were reported in Duval (4), Escambia, and Leon counties. One horse case of WNV infection was reported in Holmes County. Nine sentinel chickens in Bay, Duval, Indian River, Manatee, Orange, Seminole, and Walton counties tested positive for antibodies to WNV. In 2012, positive samples from 19 humans, 1 horse, and 106 sentinel chickens have been received from 18 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:** Leon, Jefferson, and Bay counties issued mosquito-borne illness advisories this week in response to WNV activity. Duval and Escambia counties are currently under mosquito-borne illness alerts. 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 EEEEV 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:** Fifteen human cases of WNV infection with onset in June (4), July (7), and August (4) were reported in 2012 in Duval County, two of which were presumptive positive blood donors who later developed symptoms. Three human cases of WNV infection with onset in July (2) and August and a presumptive positive blood donor were reported in Escambia County and one with onset in August was reported in a Leon County resident who also spent time in Jefferson County. Two human cases of WNV infection in non-Florida residents who traveled to Florida were acquired in Oklahoma and South Carolina.

**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 &

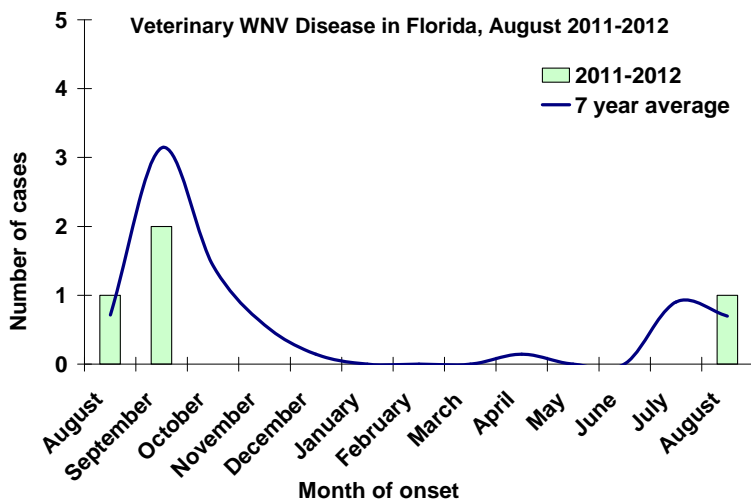
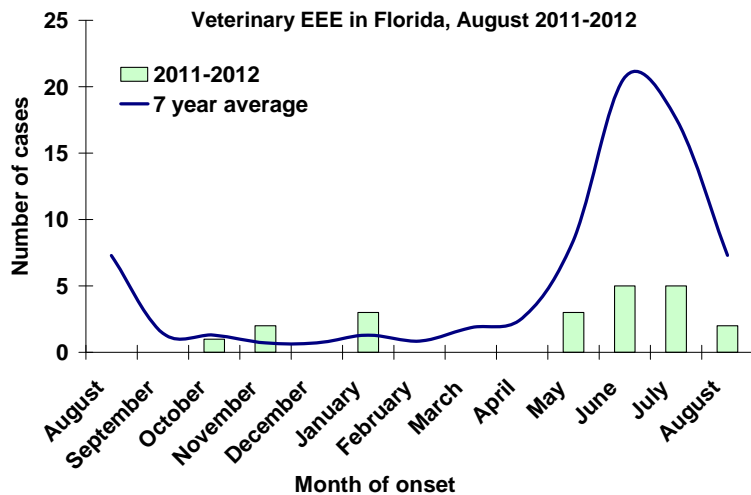
Caicos. Counties reporting cases were Brevard, Broward (8), Collier, Duval, Hillsborough (2), Lake, Lee, Miami-Dade (13), Orange (6), Palm Beach (2), Pinellas, Polk, Sarasota (2), and Seminole (2). Eight of the cases were reported in non-Florida residents.

**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 Leon County tested positive for EEEV and one horse in Holmes County tested positive for WNV this week.

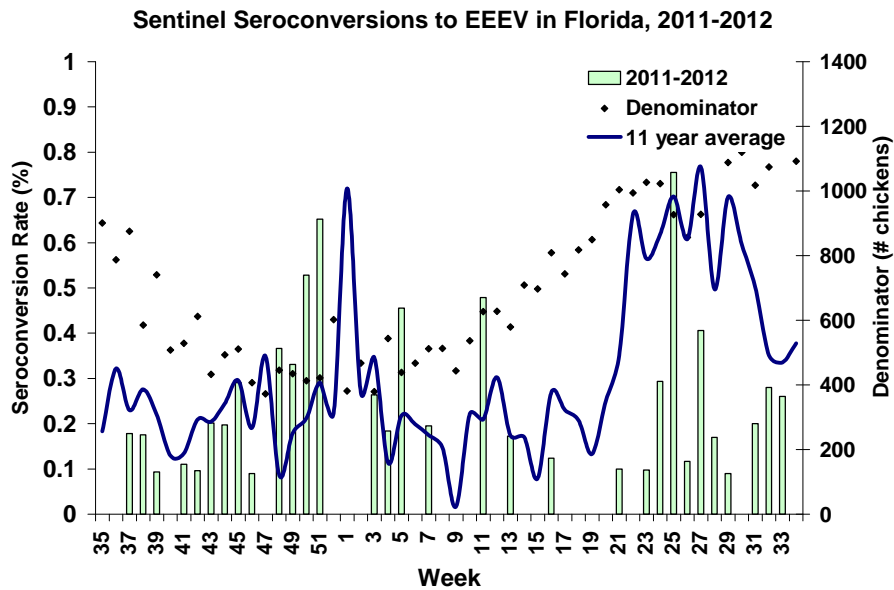
County	Onset Date	Species	Virus	Status	County YTD
Leon	08/21/12	Equine	EEEV	Dead	1 EEEV
Holmes	08/11/12	Equine	WNV	Alive	1 WNV

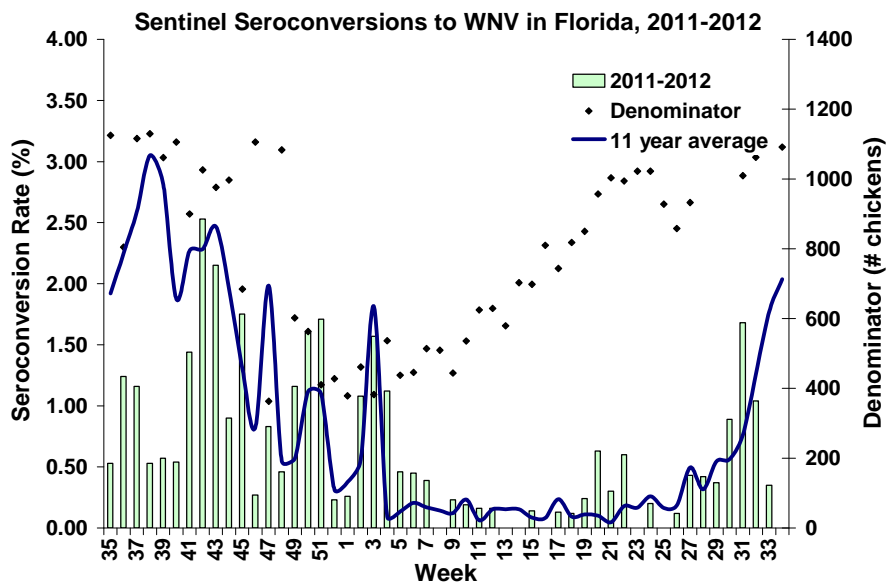


## Sentinel Chickens

Six sentinels in Flagler, Leon, and Orange counties tested positive for antibodies to EEEV and 9 sentinels in Bay, Duval, Indian River, Manatee, Orange, Seminole, 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	08/14/12		7.1			1 WNV	7 WNV, 1 EEEV, 1 HJV
Duval	08/13/12		3.7			1 WNV	4 WNV
Flagler	08/06/12			10.0		1 EEEV	1 EEEV, 1 HJV
Indian River	08/09/12		2.1			1 WNV	2 WNV
Leon	08/13/12			2.4		1 EEEV	1 EEEV
Manatee	08/15/12		1.3			1 WNV	4 WNV
Orange	08/13/12			1.8		2 EEEV	10 WNV, 14 EEEV
	08/08/12			1.8		2 EEEV	
	07/26/12		0.9			1 WNV	
Seminole	08/07/12		4.6			2 WNV	2 WNV
Walton	08/13/12		1.9			1 WNV	33 WNV, 12 EEEV, 5 HJV
	07/30/12		9.8	1.0		9 WNV, 1 EEEV	

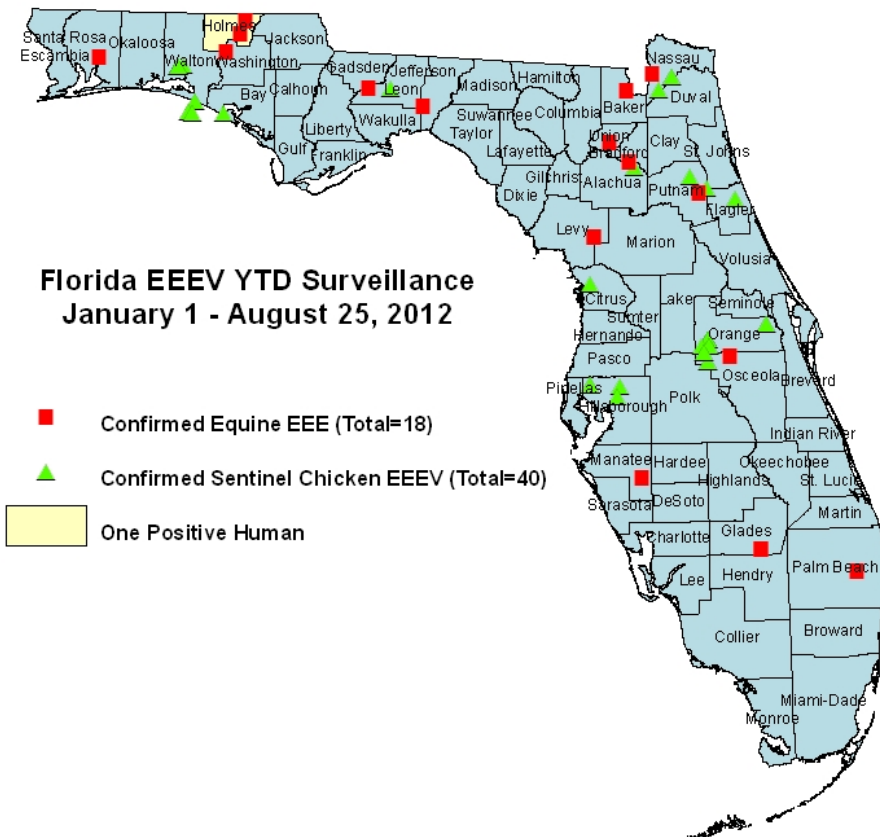
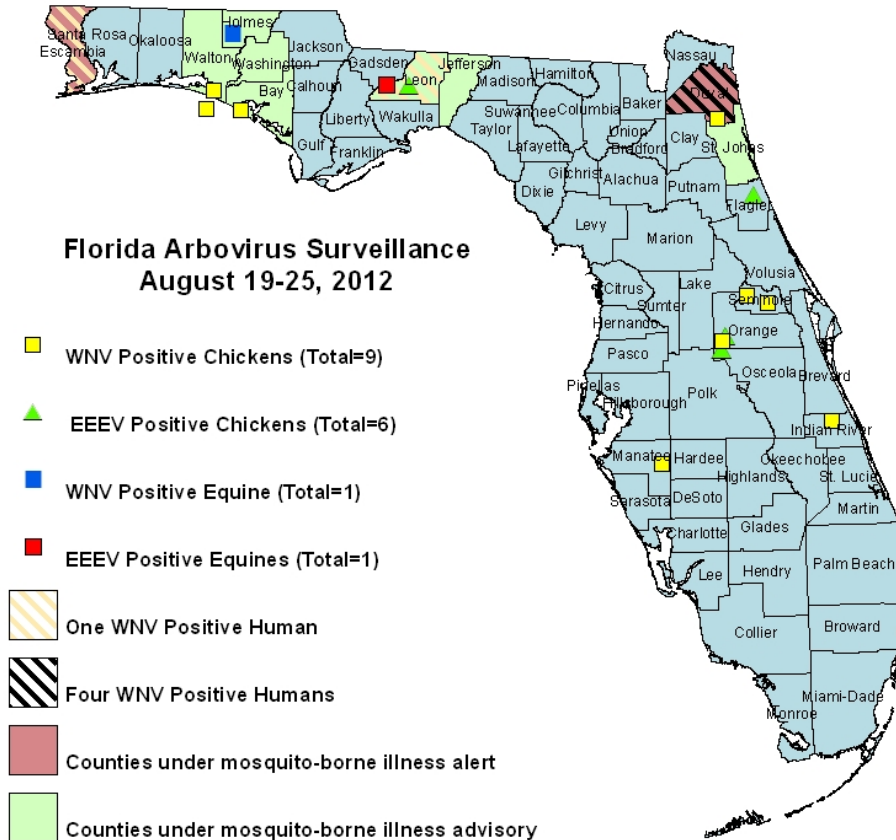


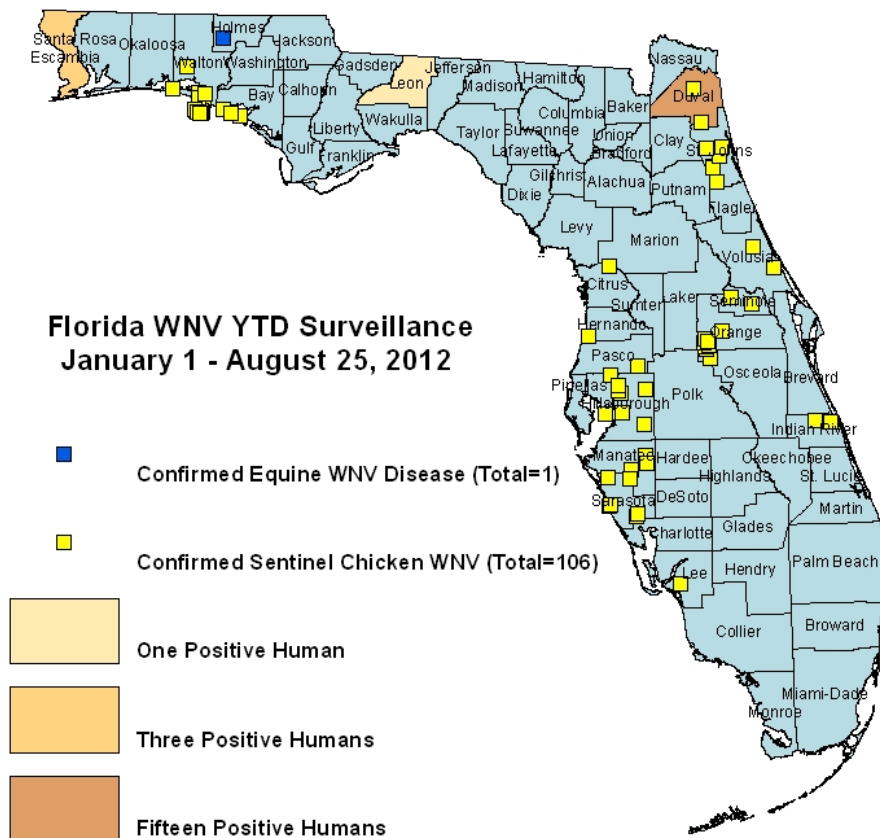


**Dead Birds**

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, 21 reports representing 54 dead birds were received from 13 counties. Three were identified as crows, 13 as jays, and one as a raptor. In 2012, 320 reports representing a total of 1018 dead birds (37 crows, 26 jays, 51 raptors) were received from 51 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/](http://www.myfwc.com/bird/)

## Maps





### Arbovirus Activity by County

County	Arbovirus Activity
<b>Alachua</b>	EEEV : 1 horse (7/27) ; 1 sentinel (7/9)
<b>Bay</b>	EEEV : 1 sentinel (7/10) WNV : 7 sentinels (7/24, 7/31, 8/7, 8/14) HJV : 1 sentinel (5/29)
<b>Baker</b>	EEEV : 1 horse (6/21)
<b>Citrus</b>	EEEV : 1 sentinel (1/30) WNV: 1 sentinel (5/29) HJV: 1 sentinel (1/3)
<b>Duval</b>	WNV: 15 humans (4 June, 7 July, 4 August); 4 sentinels (7/30, 8/3, 8/13)
<b>Escambia</b>	WNV: 3 humans (2 July, August)
<b>Flagler</b>	EEEV: 1 sentinel (8/6) HJV: 1 sentinel (7/30)
<b>Glades</b>	EEEV: 2 horses (6/25, 7/14)
<b>Hernando</b>	WNV: 1 sentinel (1/23)
<b>Hillsborough</b>	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)
<b>Holmes</b>	EEEV : 1 human (June); 2 horses (5/21, 6/25) WNV : 1 horse (8/11)
<b>Indian River</b>	WNV: 2 sentinels (5/24, 8/9)
<b>Jefferson</b>	EEEV: 1 horse (8/6)
<b>Lee</b>	WNV: 1 sentinel (1/24) SLEV: 1 sentinel (3/7)
<b>Leon</b>	EEEV : 1 horse (8/21), 1 sentinel (8/13)

<b>County</b>	<b>Arbovirus Activity</b>
	WNV : 1 human (August)
<b>Levy</b>	EEEV: 2 horses (1/2)
<b>Manatee</b>	WNV: 4 sentinels (2/1, 3/14, 5/30, 8/15) EEEV: 1 horse (6/14)
<b>Nassau</b>	EEEV : 1 horse (7/18) ; 3 sentinels (6/16, 6/23) HJV : 2 sentinels (7/13)
<b>Orange</b>	EEEV : 14 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) WNV: 10 sentinels (1/9,1/12, 1/19, 1/25, 3/1, 7/26)
<b>Osceola</b>	EEEV : 1 horse (7/25)
<b>Palm Beach</b>	EEEV : 1 horse (6/20) SLEV : 1 sentinel (7/23)
<b>Pasco</b>	WNV : 1 sentinel (5/29)
<b>Putnam</b>	EEEV: 1 horse (1/1) ; 2 sentinels (7/20, 8/3)
<b>Santa Rosa</b>	EEEV : 1 horse (5/11)
<b>Sarasota</b>	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)
<b>Seminole</b>	WNV : 2 sentinels (8/7)
<b>St. Johns</b>	WNV : 12 sentinels (5/14, 5/22, 5/29, 8/5) HJV : 2 sentinels (4/30, 7/3)
<b>Union</b>	EEEV : 1 horse (5/12)
<b>Volusia</b>	WNV : 2 sentinels (5/29, 6/25)
<b>Walton</b>	WNV : 33 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) 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)
<b>Washington</b>	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](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.