



Florida Arbovirus Surveillance Week 13: March 23 - 29, 2014

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 of March 23-29, 2014 the following arboviral activity was recorded in Florida.

WNV activity: No human cases of WNV illness were reported this week. No horses with WNV infection were reported this week. No sentinel chickens tested positive for antibodies to WNV this week. In 2014, a positive sample from one sentinel chicken has been received from one county.

EEEV activity: No human cases of EEE were reported this week. One horse with EEEV infection was reported this week in Baker County. No sentinel chickens tested positive for antibodies to EEEV this week. In 2014, positive samples from one sentinel chicken and one equine have been received from two counties.

SLEV activity: One sentinel chicken tested positive for antibodies to SLEV this week in Sarasota County. In 2014, positive samples from eight chickens have been received from three counties.

HJV activity: No sentinel chickens tested positive for antibodies to HJV this week. In 2014, positive samples from six sentinel chickens have been received from three counties.

Advisories/Alerts: No counties are currently under mosquito-borne illness advisory or alert. A CDC Health Alert Network (HAN) health advisory was issued in December for the Caribbean region announcing the first locally acquired cases of chikungunya fever in the Americas. There is a Level 1 (Watch) Travel Health Notice from the CDC for seven countries in the Caribbean related to the continued transmission of chikungunya. <http://wwwnc.cdc.gov/travel/notices/watch/chikungunya-saint-martin>

2014 Human Case Summary*

Imported Dengue: Eighteen cases of dengue with onset in 2014 have been reported in individuals with travel history to a dengue endemic country in the two weeks prior to onset. Countries of origin were: Bolivia, Cuba (6), Dominican Republic (4), Guadeloupe, Honduras, Puerto Rico (2), Trinidad, and Venezuela (2). Counties reporting cases were: Alachua, Broward (2), Clay, Hillsborough (2), Marion, Miami-Dade (5), Orange, Osceola (3), and Palm Beach (2). Two of the cases were reported in a non-Florida resident.

In 2014, nine of the 18 cases of dengue reported in Florida have been serotyped by PCR. Additional serotyping and strain typing are being conducted.

	# of cases per serotype – 2014
DENV-1	1
DENV-2	5
DENV-3	0
DENV-4	3
	9

Imported Malaria: Six cases of malaria with onset in 2014 has been reported. Countries of origin were: Dominican Republic, Guatemala, Guyana, Ivory Coast, and Sierra Leone (2). Counties reporting cases were: Duval, Hillsborough (3), Miami-Dade, Orange.

Three cases (50%) were diagnosed with *Plasmodium falciparum*. Three cases (50%) were diagnosed with *Plasmodium vivax*.

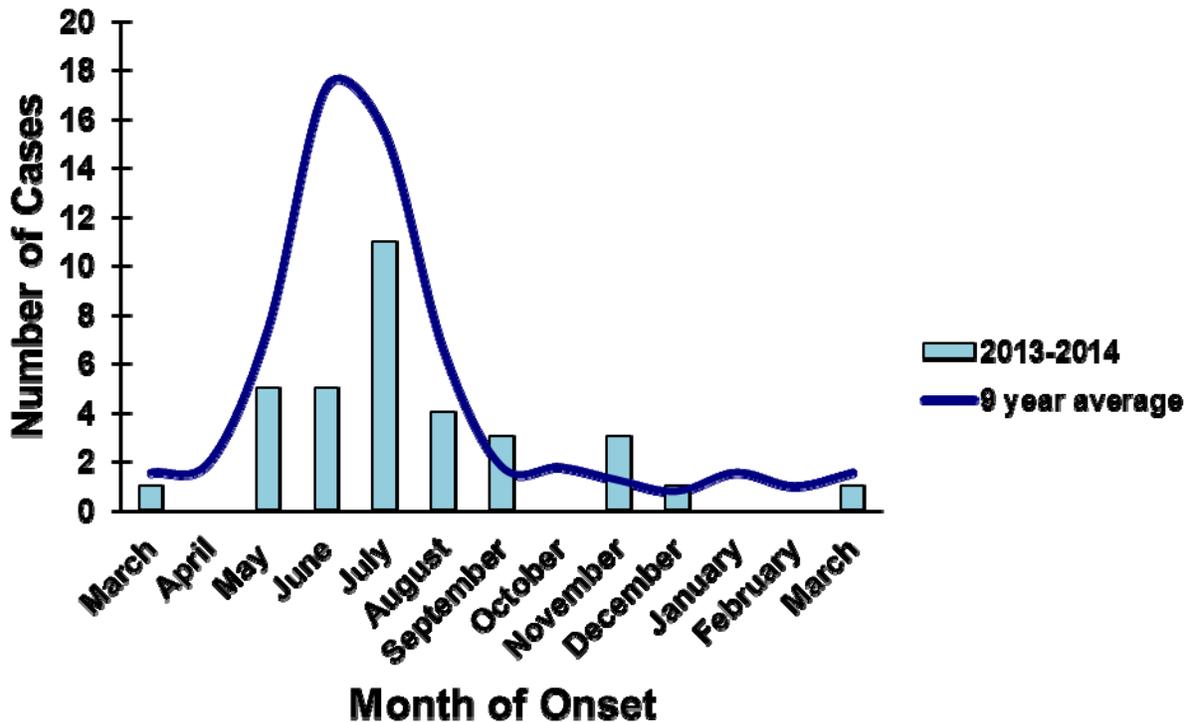
Veterinary Cases*

*Veterinary cases are reported by date of onset

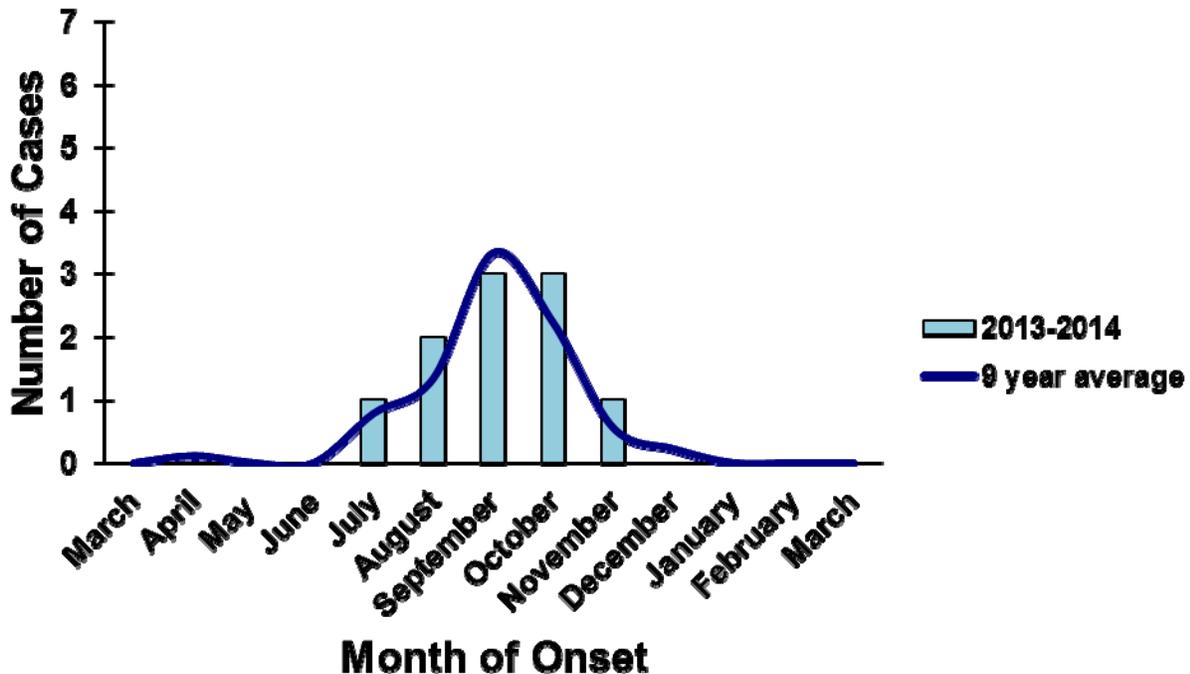
One horse with EEEV infection was reported this week in Baker County. No horses with WNV infection were reported.

County	Onset Date	Species	Virus	Status	County YTD
Baker	3/1/14	Equine	EEEV	Died	1 EEEV

Veterinary EEE in Florida, March 2013-2014



Veterinary WNV Disease in Florida, March 2013-2014



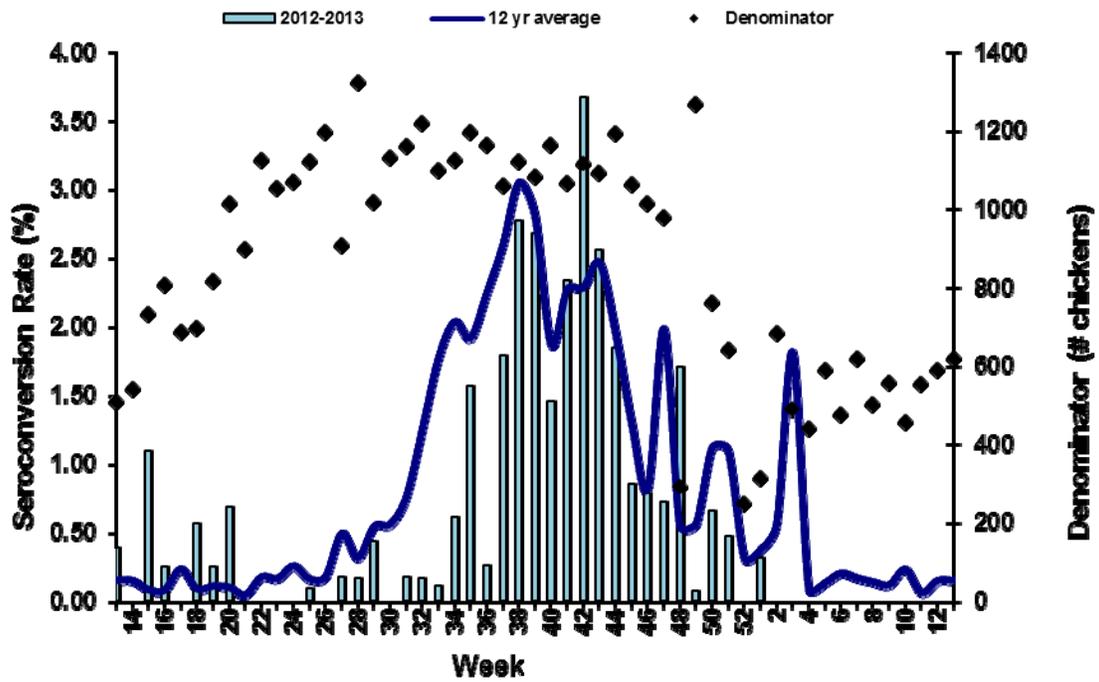
Sentinel Chickens

The table below is for the reporting of confirmatory laboratory results from this week. Some of the samples were collected at earlier dates. The date of collection is recorded for samples collected on that day along with the total number of positives and the corresponding seroconversion rate for the week the sample was collected.

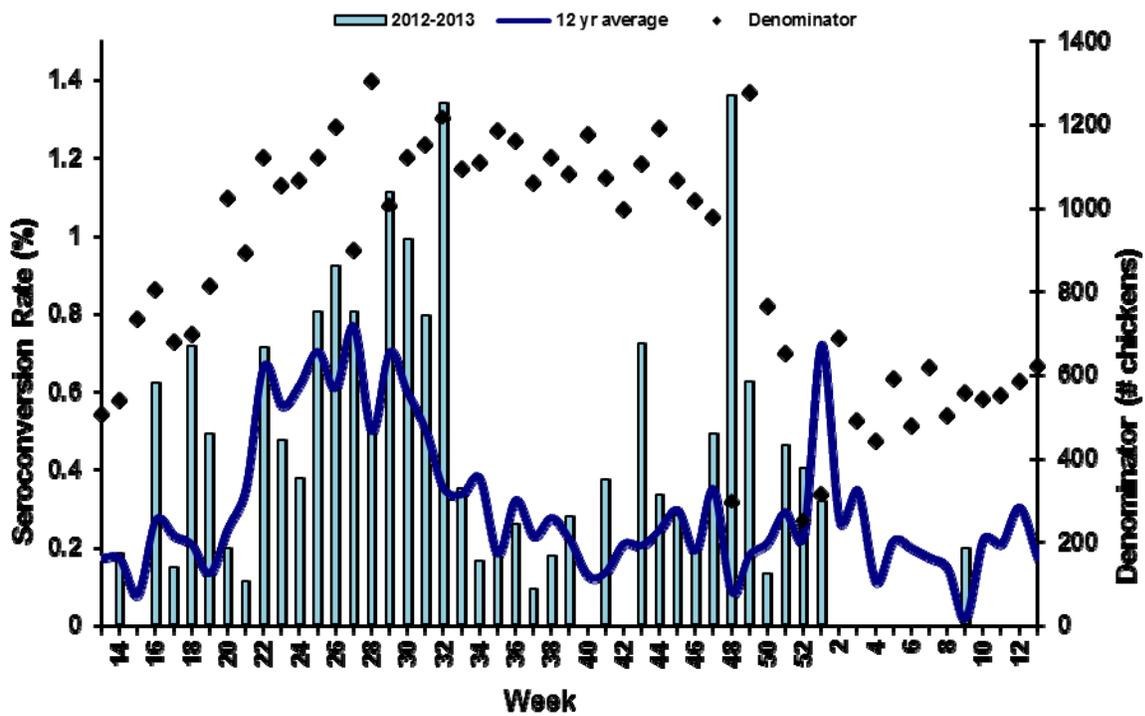
One sentinel chicken tested positive for antibodies to SLEV this week in Sarasota.

County	Collection Date	Seroconversion Rates (%)					County Totals		
		Flavi	SLEV	WNV	Alpha	EEEV	HJV	Collection Week	YTD
Sarasota	2/28/14	1.59	1.59					1 SLEV	3 SLEV

Sentinel Seroconversions to WNV In Florida, 2013-2014



Sentinel Seroconversions to EEEV In Florida, 2013-2014



Dead Birds

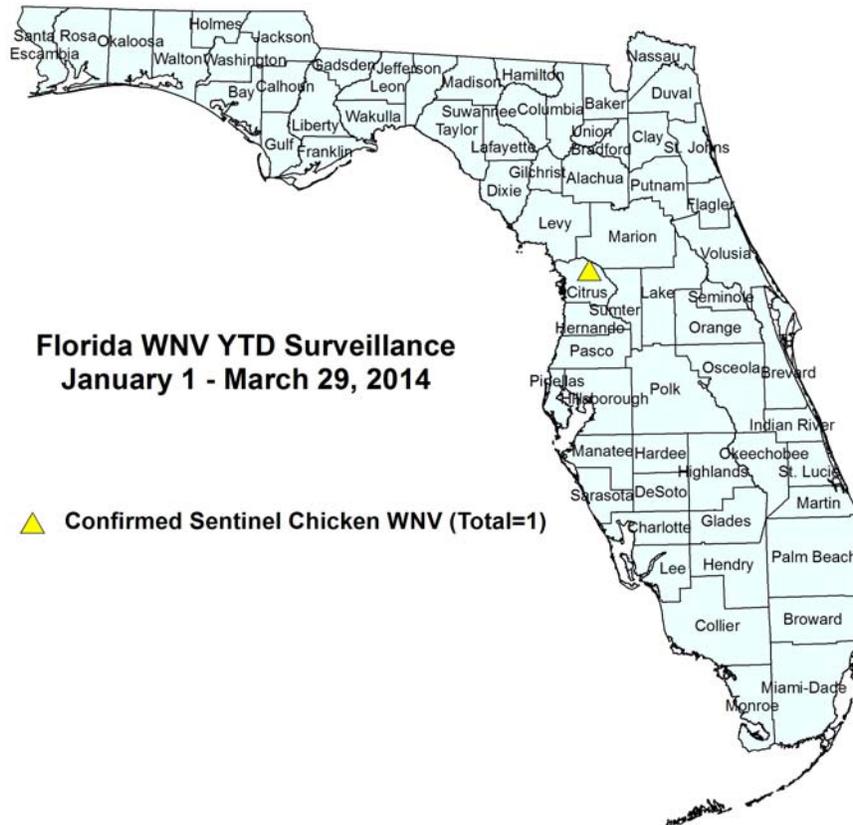
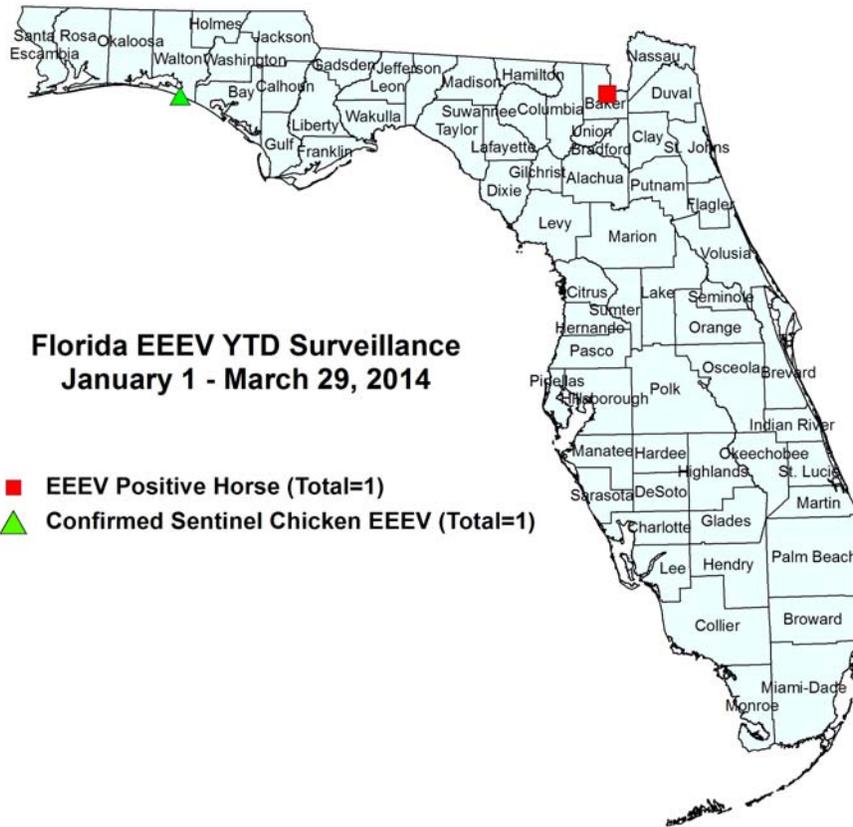
The Fish and Wildlife Conservation Commission (FWC) collects reports of dead birds, which can be an indication of arbovirus circulation in an area. This week, 16 reports representing 41 dead birds, including 1 crow and 3 raptors were received from 13 counties.

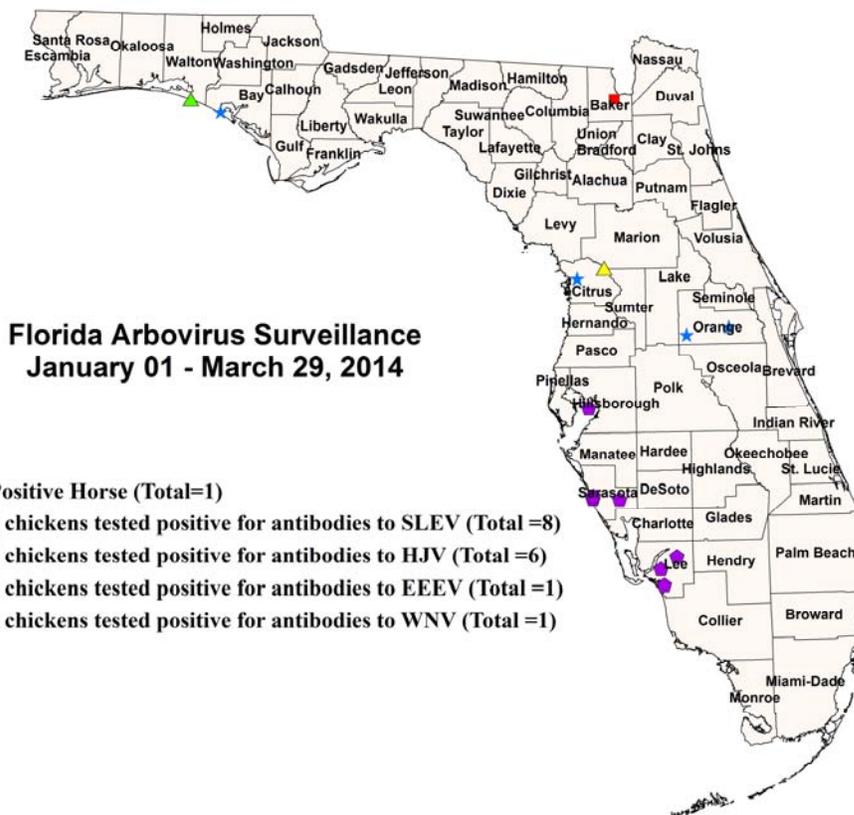
In 2014, 138 reports representing a total of 485 dead birds (3 crow, 1 jay, 23 raptors, and 12 doves) were received from 37 of Florida's 67 counties. Please note that FWC collects reports of birds that have died from a variety of causes, not only arboviruses. Dead birds should be reported to www.myfwc.com/bird/

County	Total Dead Birds	Crows	Jays	Raptors	Dove
Brevard	1	0	0	0	0
Duval	2	0	0	2	0
Hillsborough	2	0	0	0	0
Indian River	1	0	0	1	0
Lee	1	0	0	0	0
Leon	1	0	0	0	0
Monroe	1	0	0	0	0
Palm Beach	1	0	0	0	0
Pasco	1	0	0	0	0
Pinellas	23	0	0	0	0
Putnam	2	1	0	0	0
Volusia	1	0	0	0	0
Walton	4	0	0	0	0

Maps







**Florida Arbovirus Surveillance
January 01 - March 29, 2014**

- EEEV Positive Horse (Total=1)
- ◆ Sentinel chickens tested positive for antibodies to SLEV (Total=8)
- ★ Sentinel chickens tested positive for antibodies to HJV (Total=6)
- ▲ Sentinel chickens tested positive for antibodies to EEEV (Total=1)
- ▲ Sentinel chickens tested positive for antibodies to WNV (Total=1)

2014 Arbovirus Activity by County

County	Arbovirus Activity
Bay	HJV: 1 sentinel (2/18)
Baker	EEEV: 1 horse (3/13)
Citrus	WNV: 1 sentinel (1/2) HJV: 2 sentinels (2/17, 2/24)
Hillsborough	SLEV: 2 sentinels (1/7, 2/18)
Lee	SLEV: 3 sentinels (1/13, 1/14, 2/11)
Orange	HJV: 3 sentinels (1/2, 2/17)
Sarasota	SLEV: 3 sentinels (2/6, 2/14, 2/28)
Walton	EEEV: 1 sentinel (2/24)

Acknowledgements and Data Sources

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For more surveillance information, please see the DOH website at:

<http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/surveillance.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 by date of onset. Suspect cases are not included. Activity is mapped by county of exposure rather than county of residence. 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.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/index.html>

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 Bureau of Public 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.