



Florida Arbovirus Surveillance Week 10: March 2 - 8, 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 2 - 8, 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. No horse with EEEV infection was reported this week. No sentinel chickens tested positive for antibodies to EEEV this week. In 2014, there have been no positive samples.

SLEV activity: Two sentinel chickens tested positive for antibodies to SLEV this week in Lee and Sarasota counties. In 2014, positive samples from five chickens have been received from three counties.

HJV activity: Four sentinel chickens tested positive for antibodies to HJV this week in Bay, Citrus and Orange Counties. In 2014, positive samples from five 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: Sixteen 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: Cuba (6), Dominican Republic (4), Guadeloupe, Honduras, Puerto Rico, Trinidad, and Venezuela (2). Counties reporting cases were: Alachua, Broward (2), Clay, Hillsborough (2), Marion, Miami-Dade (4), Osceola (3), and Palm Beach (2). Two of the cases were reported in a non-Florida resident.

In 2014, seven of the 16 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	4
DENV-3	0
DENV-4	2
	7

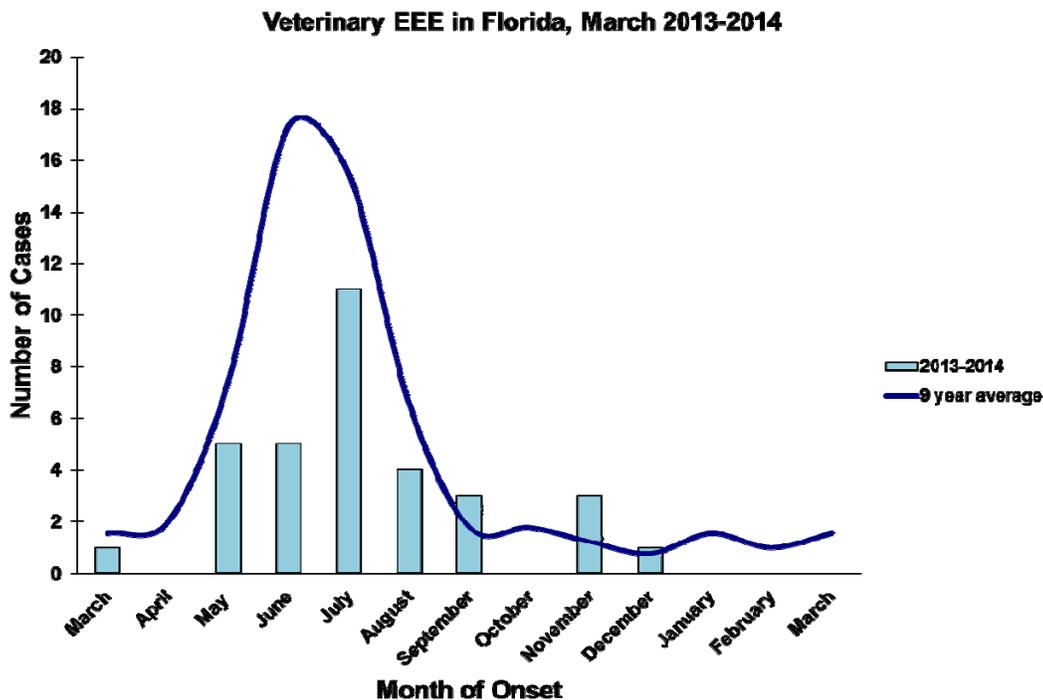
Imported Malaria: Five case of malaria with onset in 2014 has been reported. Countries of origin were: Dominican Republic, Guatemala, Ivory Coast, and Sierra Leone (2). Counties reporting cases were: Duval, Hillsborough (2), Miami-Dade, Orange.

Three cases (60%) were diagnosed with *Plasmodium falciparum*. Two cases (40%) were diagnosed with *Plasmodium vivax*.

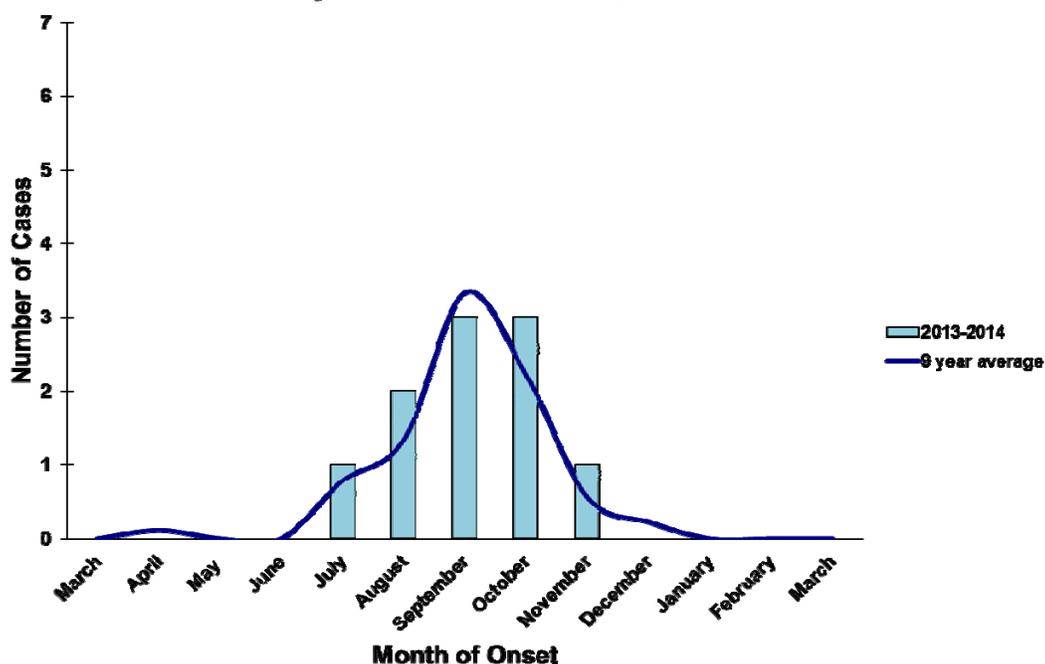
Veterinary Cases*

*Veterinary cases are reported by date of onset

No horses with WNV or EEEV infection were reported this week.



Veterinary WNV Disease in Florida, March 2013-2014



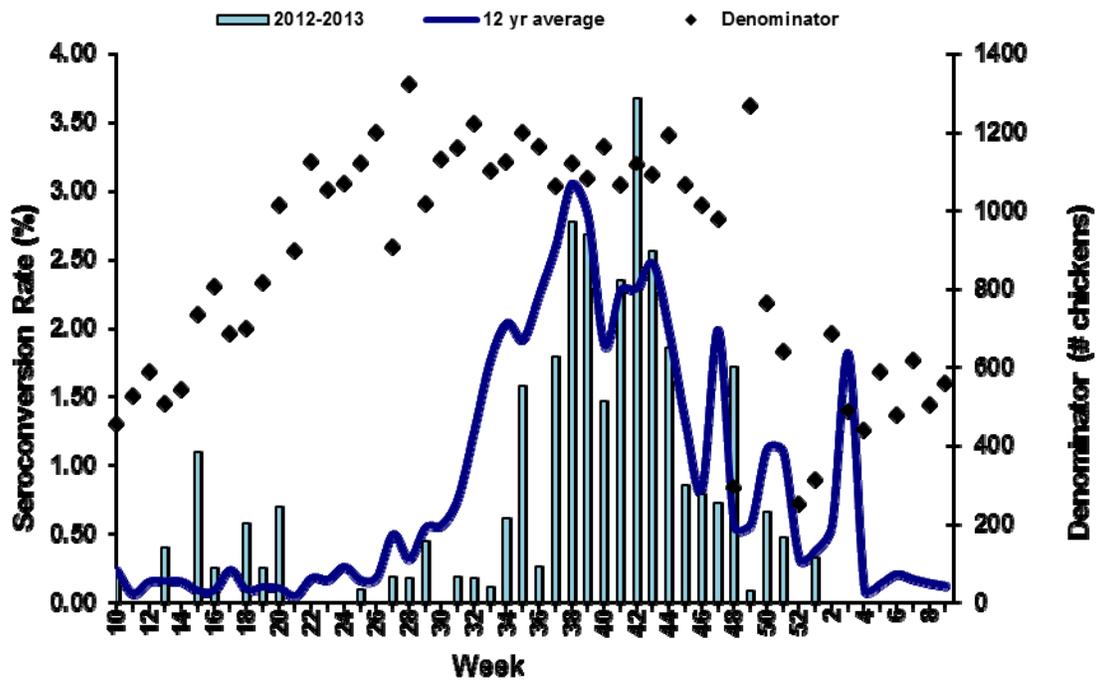
Sentinel Chickens

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.

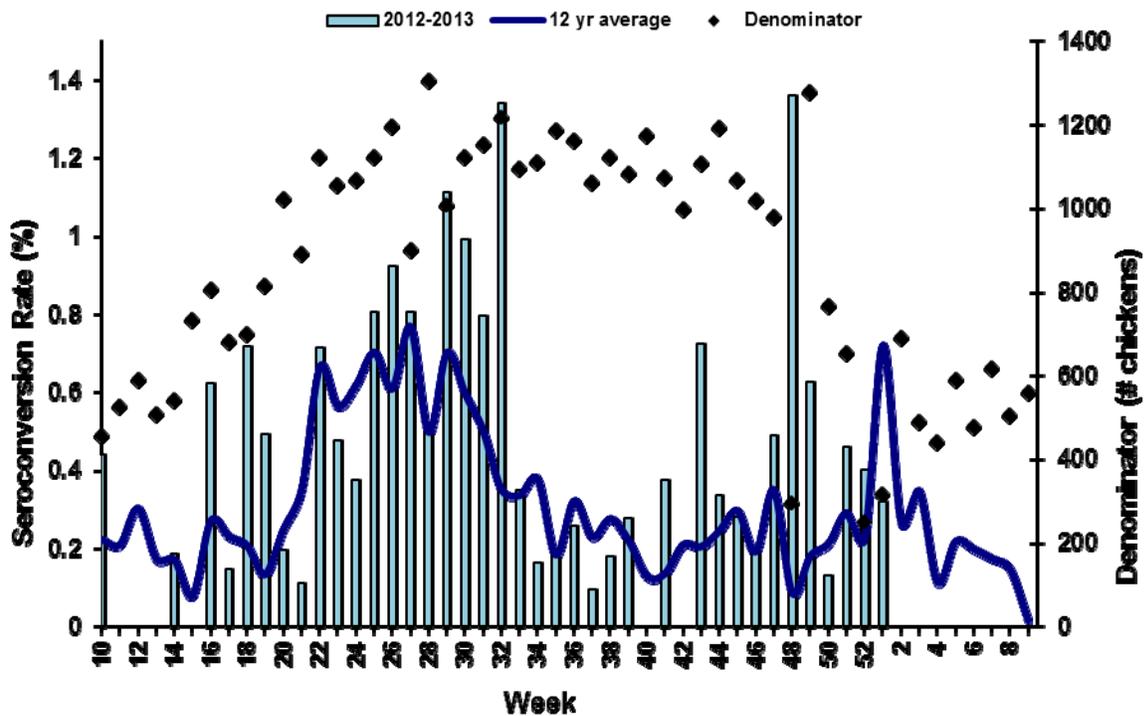
Two sentinel chickens tested positive for antibodies to SLEV this week in Lee and Sarasota counties. Four sentinel chickens tested positive for antibodies to HJV this week in Bay, Citrus and Orange Counties.

County	Collection Date	Seroconversion Rates (%)						County Totals	
		Flavi	SLEV	WNV	Alpha	EEEV	HJV	Collection Week	YTD
Bay	2/18/14				5.56		5.56	1 HJV	1 HJV
Citrus	2/17/14				1.39		1.39	1 HJV	1 HJV
Lee	2/11/14	2.50	2.50					1 SLEV	1 SLEV
Orange	2/17/14				1.87		1.87	2 HJV	2 HJV
Sarasota	2/6/14	1.49	1.49					1 SLEV	1 SLEV

Sentinel Seroconversions to WNV In Florida, 2013-2014



Sentinel Seroconversions to EEEV In Florida, 2013-2014



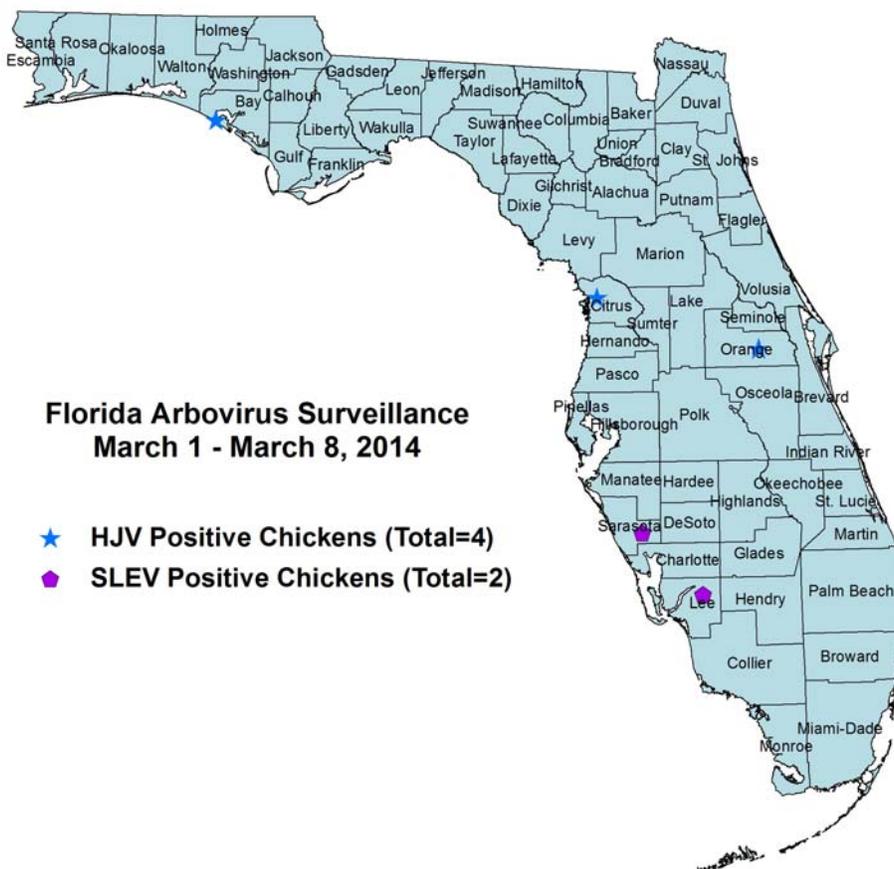
Dead Birds

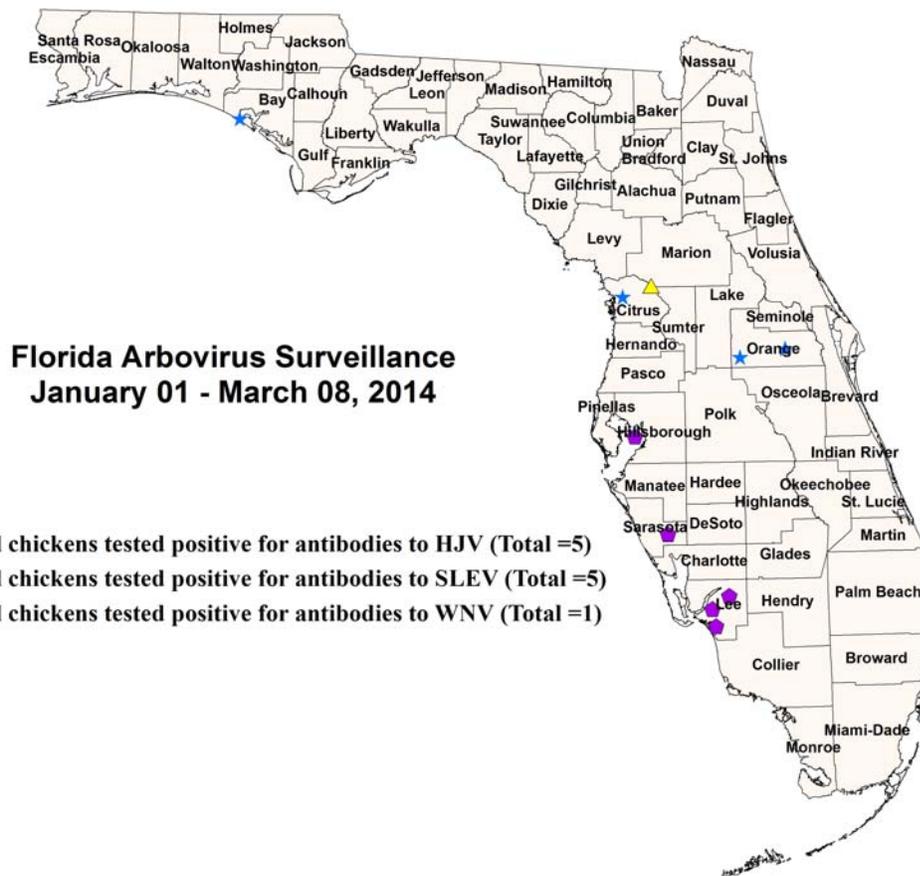
The Fish and Wildlife Conservation Commission (FWC) collects reports of dead birds, which can be an indication of arbovirus circulation in an area. This week, 8 reports representing 38 dead birds were received from 8 counties.

In 2014, 105 reports representing a total of 368 dead birds (2 crow, 1 jay, 15 raptors, 12 doves) were received from 31 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
Citrus	1	0	0	0	0
Lee	1	0	0	0	0
Leon	9	0	0	0	0
Nassau	18	0	0	0	0
Okaloosa	1	0	0	0	0
Sarasota	2	0	0	0	0
St. Johns	5	0	0	0	0

Maps





2014 Arbovirus Activity by County

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

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.