



Florida Arbovirus Surveillance Week 6: February 3-9, 2019

Arbovirus surveillance in Florida includes endemic mosquito-borne viruses such as West Nile virus (WNV), Eastern equine encephalitis virus (EEEV), and St. Louis encephalitis virus (SLEV), as well as exotic viruses such as dengue virus (DENV), chikungunya virus (CHIKV) and California encephalitis group viruses (CEV). Malaria, a parasitic mosquito-borne disease is also included. During the period of February 3-9, 2019, the following arboviral activity was recorded in Florida.

WNV activity: No human cases of WNV infection were reported this week. No horses with WNV infection were reported this week. Three sentinel chickens tested positive for antibodies to WNV this week in Citrus and Orange counties. In 2019, nine sentinel chickens have been reported from five counties.

SLEV activity: No human cases of SLEV infection were reported this week. No sentinel chickens tested positive for antibodies to SLEV this week. In 2019, no positive samples have been reported.

EEEV activity: No human cases of EEEV infection were reported this week. No horses with EEEV infection were reported this week. One sentinel chicken tested positive for antibodies to EEEV this week in Volusia County. In 2019, three sentinel chickens have been reported from one county.

International Travel-Associated Dengue Fever Cases: Five cases of dengue fever were reported this week in persons that had international travel. In 2019, eleven travel associated case have been reported.

Dengue Fever Cases Acquired in Florida: No cases of locally acquired dengue fever were reported this week. In 2019, no cases of locally acquired dengue fever have been reported.

International Travel-Associated Chikungunya Fever Cases: No cases of chikungunya fever were reported this week in persons that had international travel. In 2019, one travel-associated case has been reported.

Chikungunya Fever Cases Acquired in Florida: No cases of locally acquired chikungunya fever were reported this week. In 2019, no cases of locally acquired chikungunya fever have been reported.

International Travel-Associated Zika Fever Cases: No cases of Zika fever were reported this week in persons that had international travel. In 2019, no travel-associated cases have been reported.

Zika Fever Cases Acquired in Florida: No cases of locally acquired Zika fever were reported this week. In 2019, no cases of locally acquired Zika fever have been reported.

Advisories/Alerts: Gadsden, Miami-Dade, Sumter, and Suwannee counties are currently under a mosquito-borne illness advisory. Duval and Levy counties are currently under a mosquito-borne illness alert. No other counties are currently under mosquito-borne illness advisory or alert.

There are no areas of ongoing, active Zika transmission in Florida. For additional information on current CDC recommendations, please visit www.cdc.gov/zika/intheus/florida-update.html. For additional information on Zika virus cases from 2016–2018, including up-to-date numbers, please visit <https://zikafreefl.org/>.

There is a Level 2 (Alert) Travel Health Notice from the CDC for multiple countries in Africa, the Caribbean, Central and South America, India, Southeast Asia, and Pacific Islands related to Zika virus transmission and an association with poor pregnancy outcomes. Pregnant women should consider postponing travel to these areas. There is a Level 1 (Watch) Travel Health Notice in Senegal related to dengue virus transmission. There are also Level 2 Travel Health Notices for Brazil and Nigeria related to the transmission of yellow fever virus.

Additional information on travel health notices can be found at the following link: wwwnc.cdc.gov/travel/notices. For a map of arboviral disease activity in the United States, please visit the following link: www.cdc.gov/arbovet/maps/ADB_Diseases_Map/index.html.

2019 Human Case Summary*

International Travel-Associated Chikungunya Fever Cases: One case of chikungunya fever with onset in 2019 has been reported in an individual with travel history to a chikungunya endemic country in the two weeks prior to onset. Country of origin was: Thailand. County reporting the case was: Palm Beach.

International Travel-Associated Dengue Fever Cases: Eleven cases of dengue fever with onset in 2019 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 (7), Jamaica (2), and Venezuela (2). Counties reporting cases were: Broward (2), Miami-Dade (8), and Palm Beach. In 2019, 11 cases of dengue reported in Florida have been serotyped by PCR. Additional serotyping and strain typing are being conducted.

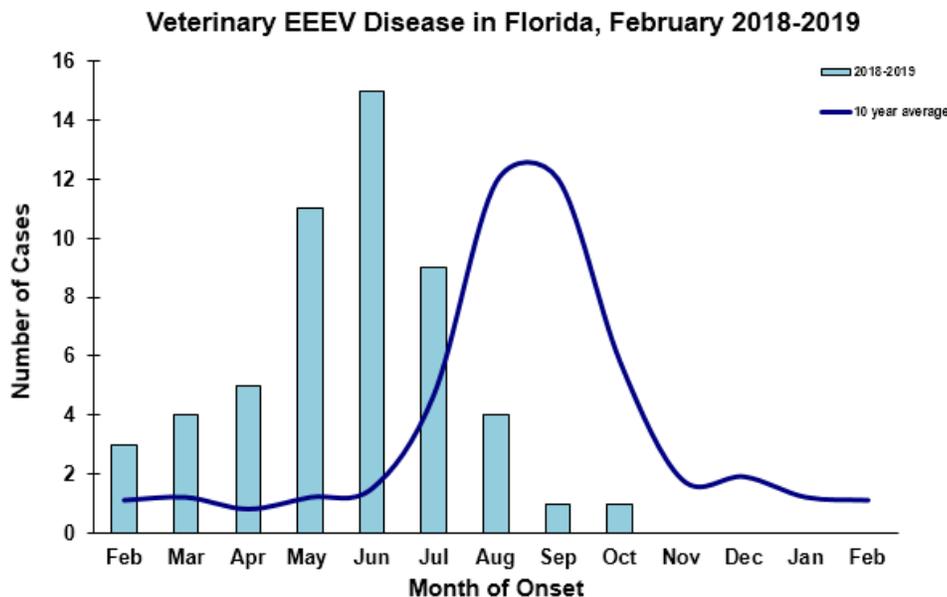
	# of cases per serotype – 2019
DENV-1	2
DENV-2	7
DENV-3	2
Total	11

International Travel-Associated Malaria Cases: One case of malaria with onset in 2019 has been reported. Country of origin was: Nigeria. County reporting the case was: Pinellas. This case was diagnosed with *Plasmodium falciparum*.

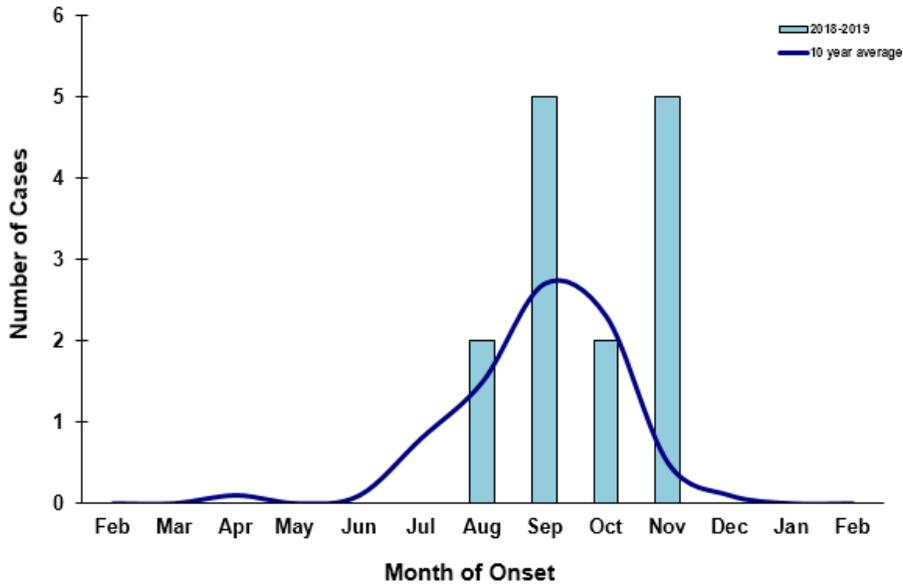
Veterinary Cases*

*Veterinary cases are reported by date of onset. Only mammalian veterinary cases are included in the graphs.

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



Veterinary WNV Disease in Florida, February 2018-2019



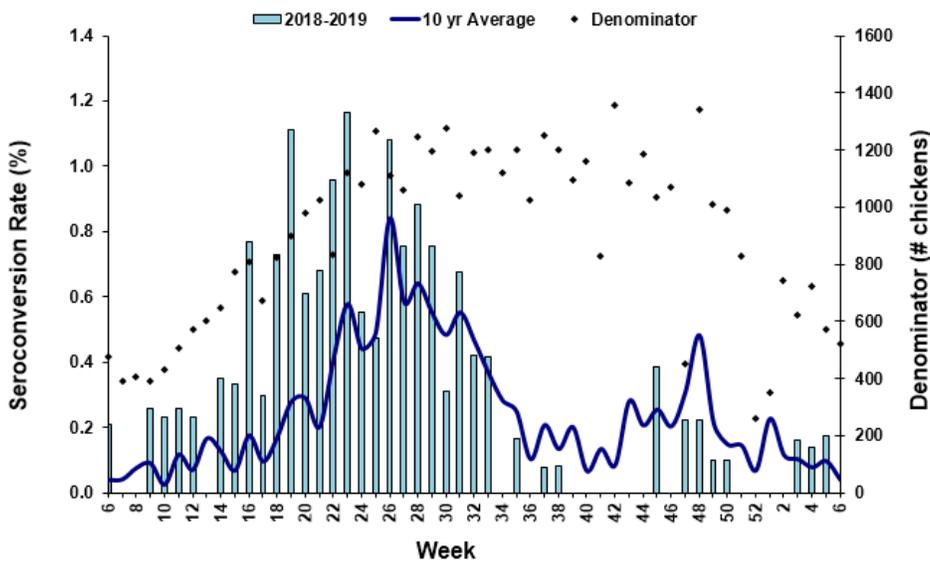
Sentinel Chickens*

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.

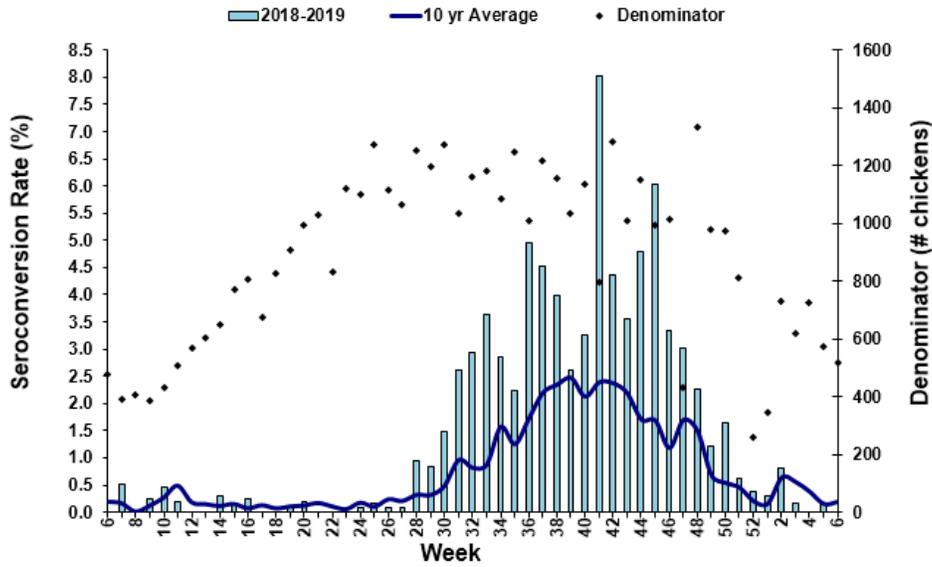
Three sentinel chickens tested positive for antibodies to WNV this week in Citrus and Orange counties. One sentinel chicken tested positive for antibodies to EEEV this week in Volusia County.

County	Collection Date	Seroconversion Rates (%)					County Totals		
		Flavi	SLEV	WNV	Alpha	EEEV	HJV	Collection Week	YTD
Citrus	1/29/19	1.39		1.39				1 WNV	2 WNV
Orange	1/7/19	2.78		2.78				3 WNV	4 WNV
	1/14/19	0.92		0.92				1 WNV	
Volusia	1/28/19				2.17	2.17		1 EEEV	3 EEEV

Sentinel Seroconversions to EEEV in Florida, 2018-2019



Sentinel Seroconversions to WNV in Florida, 2018-2019



Mosquito Pools

No mosquito pools tested positive for EEEV, WNV, or Zika this week.

County	Collection Date	Result	Species	County YTD

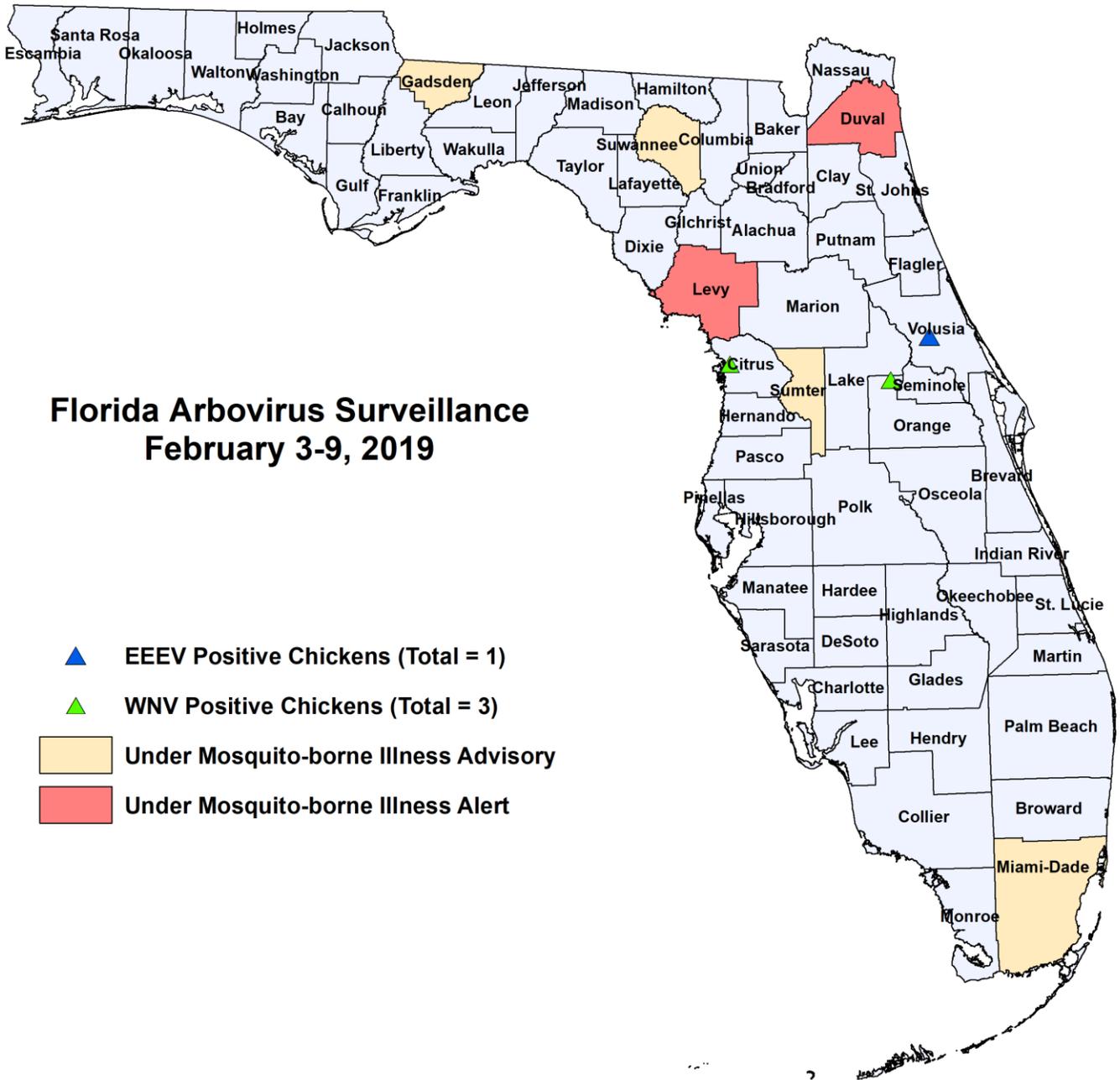
Dead Birds

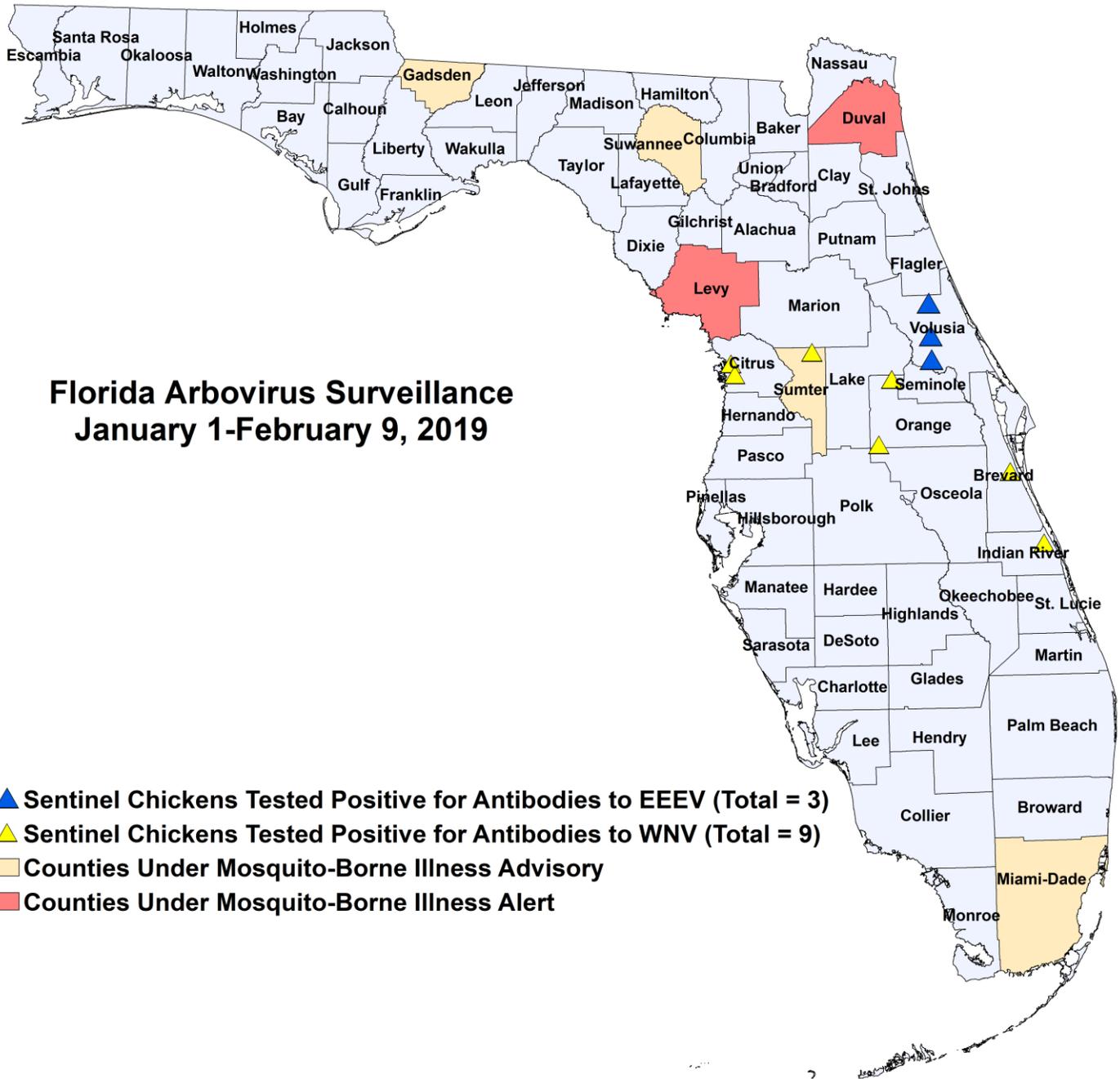
The Fish and Wildlife Conservation Commission (FWC) collects reports of dead birds, which can be an indication of arbovirus circulation in an area. This week, nine reports representing a total of 24 dead birds, including five doves, were received from seven counties.

In 2019, 65 reports representing a total of 98 dead birds (14 raptors and 5 doves) were received from 26 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/.

2019

County	Total Dead Birds	Crows	Jays	Raptors	Doves
Brevard	1	0	0	0	0
Broward	5	0	0	0	5
Escambia	1	0	0	0	0
Lee	1	0	0	0	0
Manatee	2	0	0	0	0
Pinellas	10	0	0	0	0
St. Johns	4	0	0	0	0





2019 Arbovirus Activity by County	
County	Arbovirus Activity
Brevard	WNV: 1 sentinel (1/3)
Citrus	WNV: 2 sentinels (1/8, 1/29)
Indian River	WNV: 1 sentinel (1/10)
Orange	WNV: 4 sentinels (1/7, 1/10, 1/14)
Sumter	WNV: 1 sentinel (1/8)
Volusia	EEEV: 3 sentinels (1/14, 1/22, 1/28)

Acknowledgements and Data Sources

Contributors: Andrea Morrison, PhD, MSPH, Dana Giandomenico, MPH, and Danielle Stanek, DVM, DOH Bureau of Epidemiology; Lea Heberlein-Larson, Maribel Castaneda, and Valerie Mock, DOH Bureau of Public Health Laboratories; Carina Blackmore, DVM, PhD, DOH Division of Disease Control and Health Protection.

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