



## Florida Arbovirus Surveillance Week 33: August 11-17, 2024

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), Zika virus (ZIKV) and California encephalitis group viruses (CEV). Malaria, a parasitic mosquito-borne disease is also included. During the period of August 11-17, 2024, the following arboviral activity was recorded in Florida.

**WNV activity:** Two human cases of WNV infection were reported this week in Walton County. No horses with WNV infection were reported this week. Fourteen sentinel chickens tested positive for antibodies to WNV this week in Alachua, Bay, Brevard, Manatee, Pinellas, Polk, and Walton counties. No mosquito pools tested positive for WNV this week. In 2024, positive samples from three humans, three asymptomatic blood donors, and 63 sentinel chickens have been reported from 15 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 2024, four sentinel chickens have been reported from three counties.

**EEEV activity:** No human cases of EEEV infection were reported this week. No horses with EEEV infection were reported this week. Two sentinel chickens tested positive for antibodies to EEEV this week in Orange and Putnam counties. In 2024, positive samples from 45 sentinel chickens, 21 horses, two emus, and one emu flock have been reported from 26 counties.

**International Travel-Associated Dengue:** Forty-five cases of dengue were reported this week in persons that had international travel. In 2024, 378 travel-associated dengue cases have been reported.

**Dengue Cases Acquired in Florida:** Five cases of locally acquired dengue were reported this week. In 2024, 23 cases of locally acquired dengue have been reported from five counties.

**International Travel-Associated Chikungunya Fever Cases:** No cases of chikungunya fever were reported this week in persons that had international travel. In 2024, five cases of travel-associated chikungunya fever have been reported.

**Chikungunya Fever Cases Acquired in Florida:** No cases of locally acquired chikungunya fever were reported this week. In 2024, no cases of locally acquired chikungunya fever have been reported.

**International Travel-Associated Oropouche Fever cases:** Nine cases of Oropouche fever were reported this week in persons that had international travel. In 2024, 20 travel-associated Oropouche fever cases 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 2024, no travel-associated Zika fever cases have been reported.

**Zika Fever Cases Acquired in Florida:** No cases of locally acquired Zika fever were reported this week. In 2024, no cases of locally acquired Zika fever have been reported.

**Advisories/Alerts:** Alachua, Bay, Duval, Holmes, Madison, Manatee, Nassau, and Pasco counties are currently under a mosquito-borne illness advisory. Hillsborough, Marion, Miami-Dade, Monroe, and Walton counties are currently under a mosquito-borne illness alert. No other counties are currently under a mosquito-borne illness advisory or alert.

There are currently multiple travel health notices from the Centers for Disease Control and Prevention related to mosquito-borne diseases.

Dengue			Oropouche		Yellow Fever
Africa and the Middle East	Americas	Asia and the Pacific Islands	Caribbean	South America	Africa
Afghanistan	Brazil	French Polynesia	Cuba	Bolivia	Nigeria
Iran	Colombia	Laos		Brazil	
Burkina Faso	Costa Rica	Samoa		Colombia	
Cape Verde	Cuba	Singapore		Peru	
Ghana	Ecuador	Sri Lanka			
Mali	French Guiana				
Mauritius	Guatemala				
Sudan	Guyana				
	Honduras				
	Mexico				
	Panama				
	Uruguay				

Level 1 Travel Health Notice, Level 2 Travel Health Alert: [wwwnc.cdc.gov/travel/notices](http://wwwnc.cdc.gov/travel/notices).

For a map of arboviral disease activity in the United States visit: <https://www.cdc.gov/fight-the-bite/at-risk/index.html>.

## 2024 Human Case Summary

**West Nile Virus Illnesses Acquired in Florida:** In 2024, three human cases of WNV illness acquired in Florida have been reported in Duval (July), Marion (July), and Walton (July) counties. Three asymptomatic positive blood donors were reported from Marion (July) and Walton (July, August) counties.

**2024 International Travel-Associated Chikungunya Cases:** Five cases with onset in 2024 have been reported in individuals with travel history to a chikungunya-endemic area in the two weeks prior to onset. Counties reporting cases were: Broward (2), Manatee, Orange, and Pinellas. Country of origin was Brazil (5).

**2024 International Travel-Associated Oropouche Cases:** Twenty cases with onset in 2024 have been reported in individuals with travel history to an Oropouche-endemic area in the two weeks prior to onset. Counties reporting cases were: Hillsborough (4), Lee (2), Miami-Dade (9), Orange (2), Polk (2), and Sarasota. Country of origin was Cuba (20).

**2024 International Travel-Associated Dengue Cases:** Three hundred and seventy-eight cases with onset in 2024 have been reported in individuals with travel history to a dengue-endemic area in the two weeks prior to onset. Counties reporting cases were: Alachua, Brevard (6), Broward (53), Charlotte (2), Collier (4), Duval (7), Escambia (2), Flagler, Hernando, Hillsborough (27), Indian River, Lake (3), Lee (13), Levy, Manatee, Marion (3), Miami-Dade (160), Monroe (2), Okaloosa, Okeechobee (2), Orange (26), Osceola (12), Palm Beach (21), Pasco (3), Pinellas (3), Polk (8), Santa Rosa, Sarasota (4), Seminole (3), St. Lucie (3), and Volusia (3). Forty-two cases were reported in non-Florida residents. Six cases met the criteria for severe dengue (dengue shock syndrome [DSS] or dengue hemorrhagic fever [DHF]). Those at greater risk for DSS and DHF include persons with previous dengue infection, pregnant women, infants, the elderly, and those with co-morbidities. However, severe illness can also occur in those without any of these risk factors. In 2024, 305 cases of dengue reported in Florida have been serotyped by PCR. Please see the table below for a breakdown of cases by country of origin and serotype.

Country of Exposure	DENV-1	DENV-2	DENV-3	DENV-4	DENV-2 /DENV-3	Unknown	Total
Argentina	3	4				6	13
Barbados	1	1				2	4
Barbados/ Trinidad and Tobago		1					1
Brazil	36	12	1			11	60
Brazil/Paraguay		1					1
Colombia	5	9	6	1		7	28
Colombia/Panama						1	1

Costa Rica			4	1			5
Cuba		1	94	19	1	19	134
Dominican Republic			11			4	15
El Salvador	2		4				6
Guatemala			7			3	10
Guyana			3				3
Honduras			11		1	3	15
India	2						2
Indonesia		1				1	2
Jamaica		1				1	2
Maldives		1					1
Mexico	2	1	9	1		1	14
Netherlands Antilles		1					1
Nicaragua			1	1		2	4
Paraguay		3					3
Peru	2	2					4
Philippines						1	1
Puerto Rico	3	7	10			4	24
Saint Barthélemy		2				1	3
Surinam		1					1
Trinidad and Tobago		1	8			2	11
US Virgin Islands		2				1	3
Venezuela			3			3	6
<b>Total</b>	<b>56</b>	<b>52</b>	<b>172</b>	<b>23</b>	<b>2</b>	<b>73</b>	<b>378</b>

**2024 Dengue Cases Acquired in Florida:** In 2024, 23 cases of locally acquired dengue have been reported in Hillsborough (2), Manatee, Miami-Dade (16), Monroe (3), and Pasco counties with onset in January (3), February, March (2), April, June (10) and July (6). Twenty cases have been serotyped by PCR. Please see the table below for a breakdown of cases by county and serotype.

County of Exposure	DENV-1	DENV-3	Unknown	Total
Hillsborough	2			2
Manatee		1		1
Miami-Dade		14	2	16
Monroe	2		1	3
Pasco		1		1
<b>Total</b>	<b>4</b>	<b>16</b>	<b>3</b>	<b>23</b>

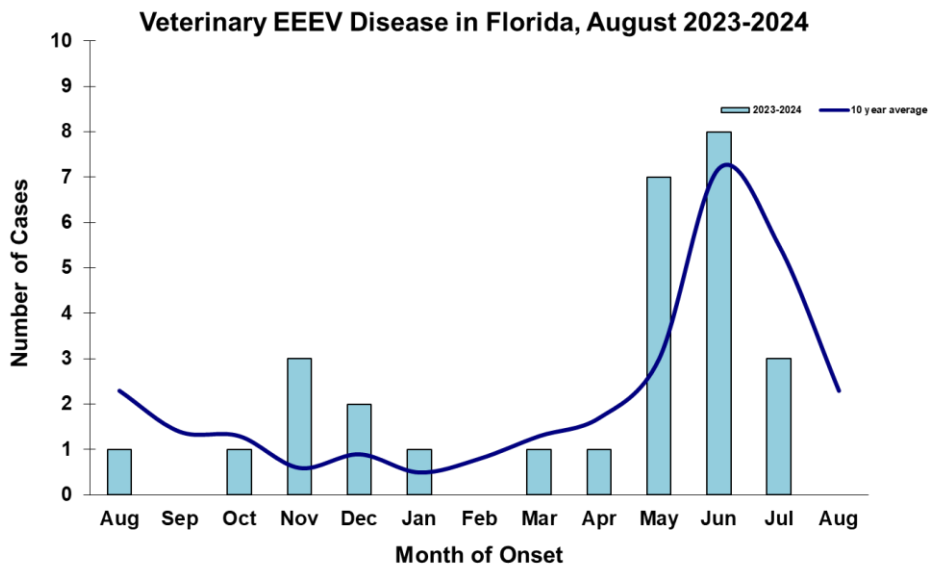
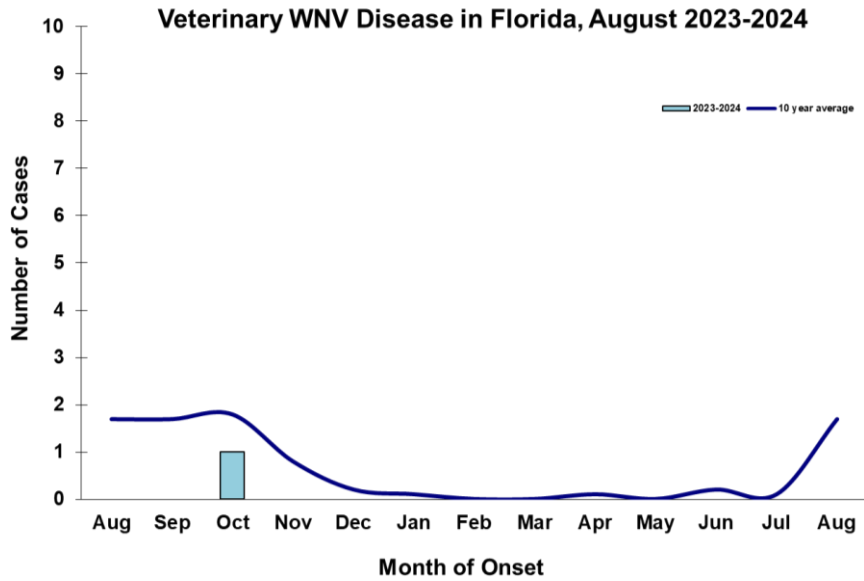
**2024 International Travel-Associated Malaria Cases:** Thirty-six cases of malaria with onset in 2024 have been reported in individuals with a travel history to a malaria-endemic area. Counties reporting cases were: Brevard, Broward (3), Clay, Collier, Duval (4), Escambia, Hillsborough (3), Indian River, Lee, Marion, Miami-Dade (3), Okaloosa, Orange (7), Osceola (2), Palm Beach, Pinellas (2), Polk, Sarasota, and Seminole. Three cases were reported in non-Florida residents. Please see the table below for a breakdown of cases by country of origin and *Plasmodium* species.

Country of Exposure	<i>Plasmodium falciparum</i>	<i>Plasmodium ovale</i>	<i>Plasmodium vivax</i>	Total
Africa	1			1
Angola	1			1
Benin	1			1
Cameroon	1			1
Central/South America			8	8
Chad	1			1
Ecuador			1	1
Ethiopia	1		1	2
Gabon	1		1	2
Ghana	1			1
Honduras			1	1
Kenya	1			1
Malawi	1			1
Mexico			2	2
Nicaragua			1	1

Nigeria	5			5
Republic of the Congo		1		1
Sierra Leone	1			1
Solomon Islands			1	1
Sudan	1			1
Tanzania	1			1
Uganda/Rwanda	1			1
<b>Total</b>	<b>19</b>	<b>1</b>	<b>16</b>	<b>36</b>

### Veterinary Cases\*\*

\*\*Veterinary cases are reported by date of onset. Only mammalian veterinary cases are included in the graphs. No veterinary cases were reported this week.



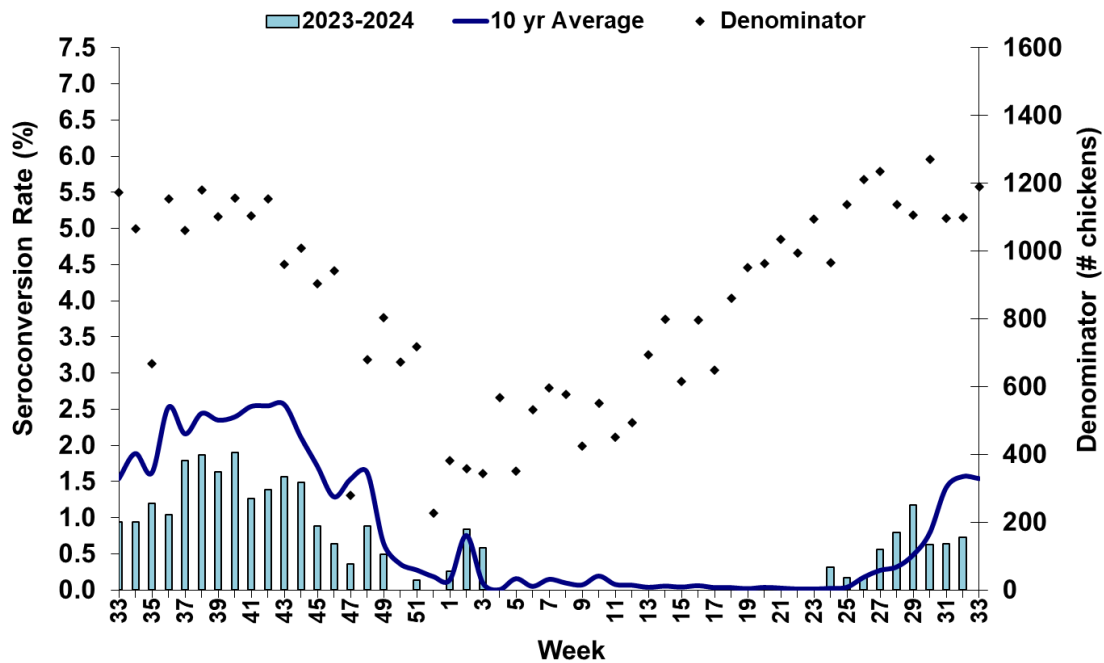
## Sentinel Chickens

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.

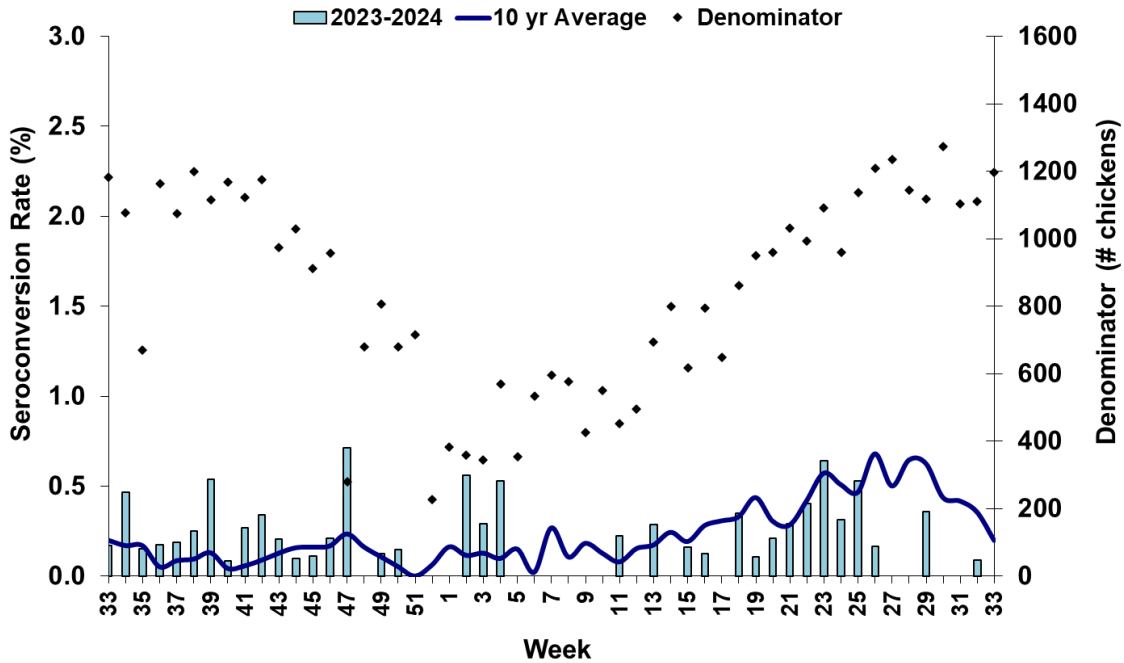
Fourteen sentinel chickens tested positive for antibodies to WNV this week in Alachua, Bay, Brevard, Manatee, Pinellas, Polk, and Walton counties. Two sentinel chickens tested positive for antibodies to EEEV this week in Orange and Putnam counties.

County	Collection Date	Seroconversion Rates (%)						County Totals	
		Flavi	SLEV	WNV	Alpha	EEEV	HJV	Collection Week	YTD
Alachua	7/19/2024	22.22		22.22				4 WNV	5 WNV
Bay	8/5/2024	17.65		17.65				3 WNV	2 EEEV, 3 WNV
Brevard	7/19/2024	1.39		1.39				1 WNV	3 WNV
Manatee	8/7/2024	1.61		1.61				1 WNV	1 WNV
Orange	8/5/2024				0.85	0.85		1 EEEV	7 EEEV
Pinellas	8/5/2024	3.70		3.70				2 WNV	2 EEEV, 3 WNV
Polk	8/6/2024	2.17		2.17				1 WNV	1 EEEV, 4 WNV
Putnam	7/15/2024				6.25	6.25		1 EEEV	1 EEEV
Walton	7/30/2024	1.19		1.19				1 WNV	16 EEEV, 2 SLEV, 1
	8/5/2024	1.20		1.20				1 WNV	Alphavirus, 25 WNV

**Sentinel Seroconversions to WNV in Florida, 2023–2024**



### Sentinel Seroconversions to EEEV in Florida, 2023–2024



#### Mosquito Pools

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

County	Collection Date	Result	Species	County YTD
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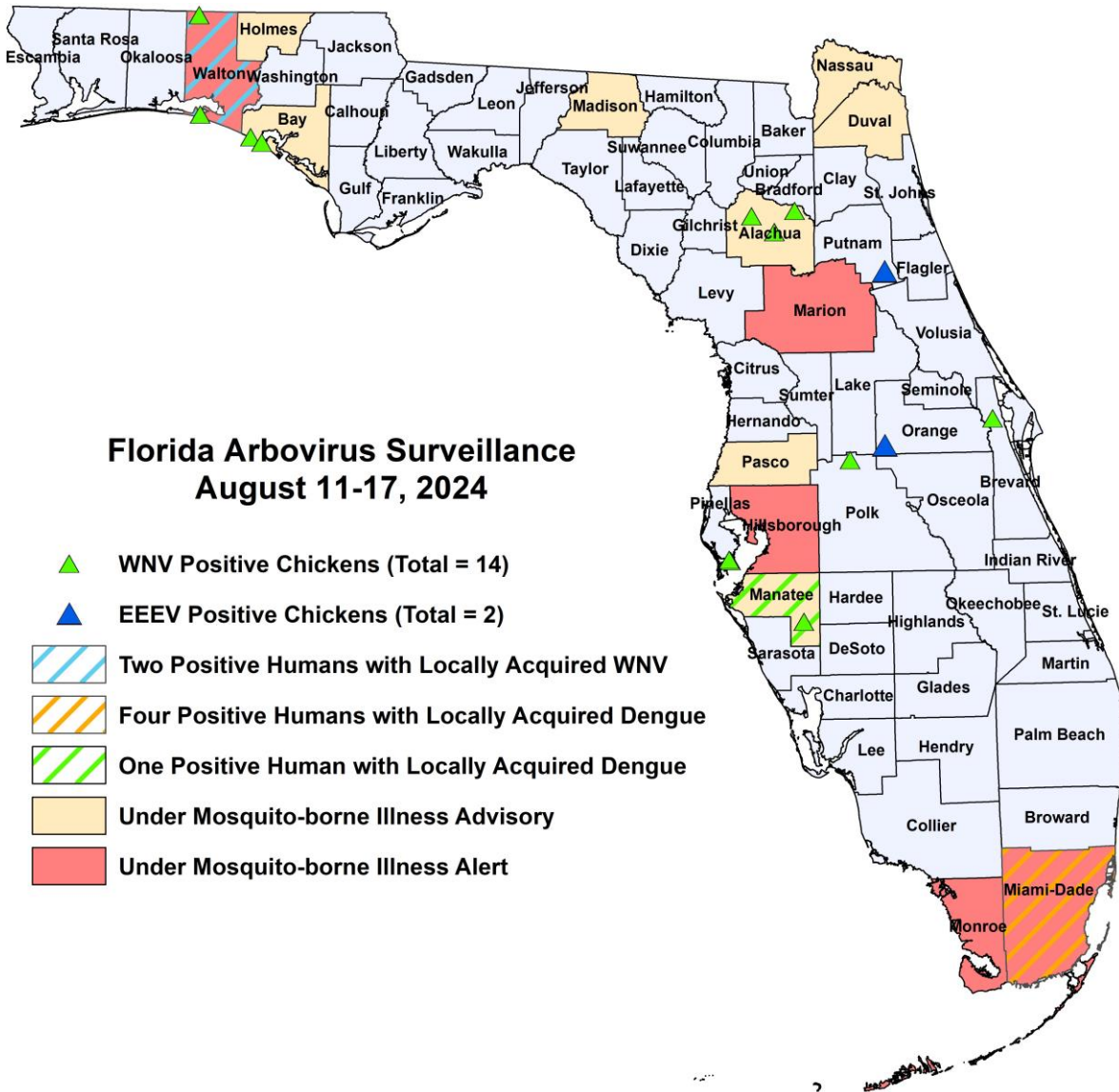
#### Dead Birds

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 23 dead birds, including two raptors, were received from eight counties.

In 2024, 741 reports representing a total of 1611 dead birds (56 crows, 20 jays, 107 raptors, 86 doves) were received from 50 of Florida’s 67 counties.

#### 2024

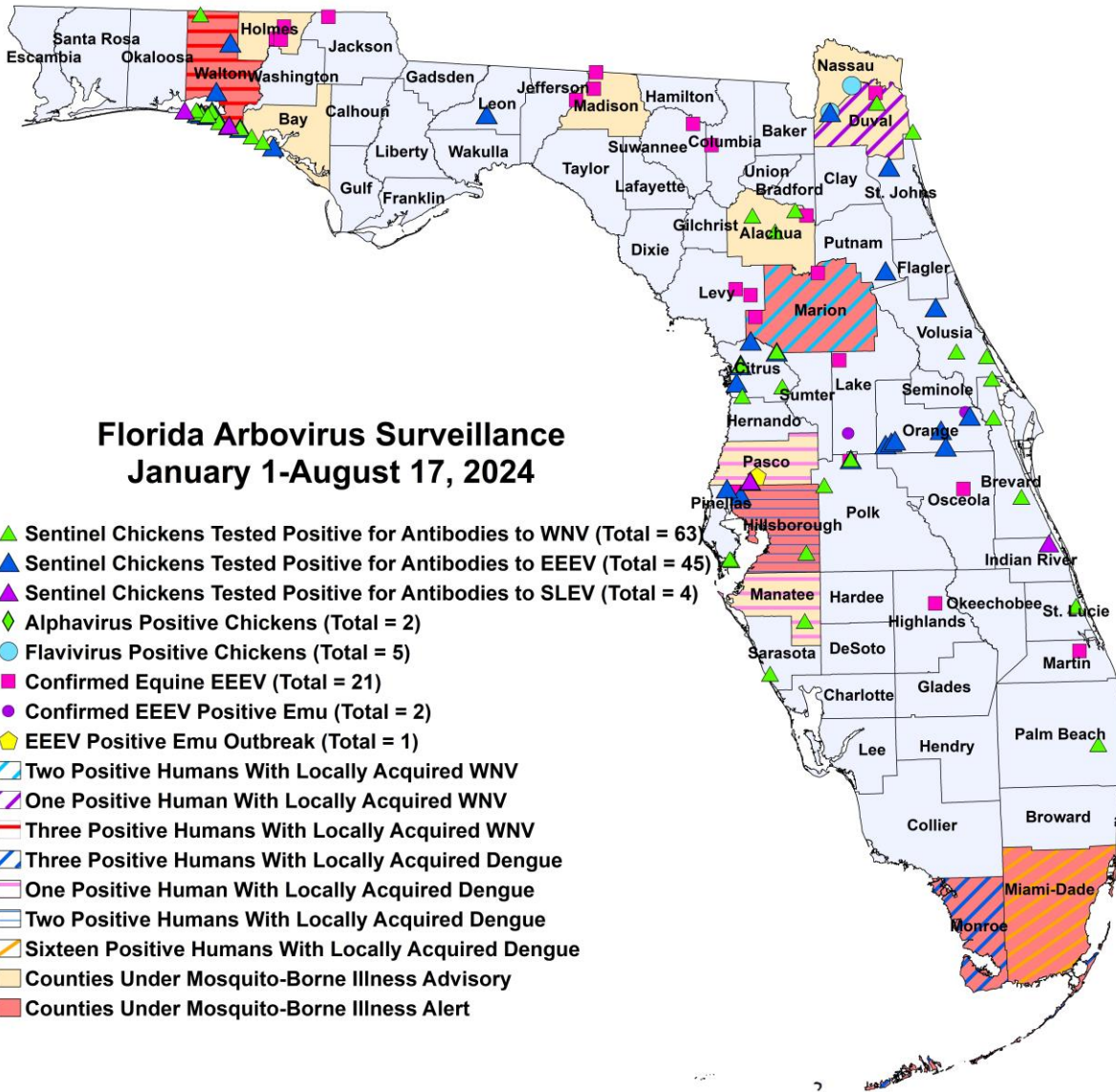
County	Total Dead Birds	Crows	Jays	Raptors	Doves
Bay	1	0	0	1	0
Duval	2	0	0	0	0
Hillsborough	5	0	0	0	0
Osceola	3	0	0	0	0
Palm Beach	1	0	0	0	0
Pinellas	7	0	0	0	0
Sarasota	1	0	0	1	0
Volusia	3	0	0	0	0



**Florida Arbovirus Surveillance  
August 11-17, 2024**

- ▲ WNV Positive Chickens (Total = 14)
- ▲ EEEV Positive Chickens (Total = 2)
- Two Positive Humans with Locally Acquired WNV
- Four Positive Humans with Locally Acquired Dengue
- One Positive Human with Locally Acquired Dengue
- Under Mosquito-borne Illness Advisory
- Under Mosquito-borne Illness Alert





**2024 Mosquito-Borne Disease Activity by County**

County	Humans	Equines	Sentinel Chickens	Other
Alachua		1 EEEV (6/21)	5 WNV (7/2, 8/19)	
Bay			2 EEEV (5/28, 6/10) 3 WNV (8/5)	
Brevard			3 WNV (1/3, 7/19, 7/26)	
Citrus			8 WNV (1/9, 1/15, 6/25, 7/8) 6 EEEV (1/9, 1/15, 2/26, 3/11, 5/20) 1 Alphavirus (5/20)	
Columbia		1 EEEV (6/16)		
Duval	1 WNV (July)	1 EEEV (5/25)	4 WNV (7/8, 7/15)	
Highlands		1 EEEV (5/25)		
Hillsborough	2 dengue (June)	1 EEEV (5/26)	1 EEEV (6/3) 1 WNV (6/10)	
Holmes		3 EEEV (6/16, 6/19)		
Indian River			1 SLEV (7/18)	
Jackson		1 EEEV (5/30)		



County	Humans	Equines	Sentinel Chickens	Other
Lake		1 EEEV (7/31)		1 EEEV emu (2/6)
Leon			1 EEEV (6/18)	
Levy		2 EEEV (5/21, 7/4)		
Madison		3 EEEV (6/20, 6/29, 7/24)		
Mantatee	1 dengue (July)		1 WNV (8/7)	
Marion	1 asymptomatic WNV blood donor (July) 1 WNV (July)	2 EEEV (1/31, 3/29)		
Martin		1 EEEV (5/27)		
Miami-Dade	16 dengue (January (2), February, March (2), April, June (5), July (5))			
Monroe	3 dengue (June (3))			
Nassau			3 EEEV (5/3) 5 Flavivirus (5/3, 5/18, 5/23)	
Orange			7 EEEV (2/26, 3/25, 5/6, 5/28, 6/3, 7/15, 8/5)	1 EEEV emu (3/16)
Osceola		1 EEEV (5/2)		
Palm Beach			1 WNV (3/18)	
Pasco	1 dengue (January)		1 EEEV (5/13) 1 SLEV (6/10)	1 EEEV emu flock outbreak (4/22 for first emu)
Pinellas			2 EEEV (5/20, 5/28) 3 WNV (7/29, 8/5)	
Polk		1 EEEV (4/9)	1 EEEV (6/10) 4 WNV (6/10, 7/22, 7/29, 8/6)	
Putnam			1 EEEV (7/15)	
Sarasota			1 WNV (7/26)	
St. Johns			2 EEEV (6/3, 6/10)	
St. Lucie			1 WNV (7/2)	
Suwannee		1 EEEV (6/3)		
Volusia			2 EEEV (1/22, 4/8) 3 WNV (7/8, 7/22, 7/29)	
Walton	2 asymptomatic WNV blood donors (July, August) 1 human (July)		16 EEEV (3/25, 4/15, 5/13, 5/28, 6/3, 6/4, 6/17, 6/24, 7/15, 7/16) 2 SLEV (4/1, 7/29) 1 Alphavirus (6/3) 25 WNV (6/17, 7/1, 7/8, 7/15, 7/22, 7/29, 7/30, 8/5)	

### Acknowledgements and Data Sources

Contributors: Andrea Morrison, PhD, MSPH, Rebecca Zimler, PhD, MPH, and Danielle Stanek, DVM, DOH Bureau of Epidemiology; Lea Heberlein, DrPH; Peter Dumoulin, PhD, Maribel Castaneda, and Amanda Davis, BS; 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](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: [www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm](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, 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](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.