

Florida 2008 Arbovirus Activity by County Through January 3, 2009

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Year-to-Date Information for 2008

As of 1-3-09	Virus	2008 YTD	2007 YTD
Human cases	EEEV	1	0
	WNV	3*	3*
	CEV	1*	1*
Counties under	Mosquito-borne illness alert	0	0
	Mosquito-borne illness advisory	0	0
Counties with activity	EEEV	38	24
	WNV	13	12
	HJV	15	7
	SLEV	0	2
	CEV	1	1

*One case acquired out-of-state

Disclaimer: Please note that data are subject to change with confirmatory information.

Summary:

Three locally-acquired human arbovirus cases have been reported this year. One was an EEE case in a Leon County resident reported in August; and two were WNV cases in Escambia County residents reported in September. A Wakulla County resident with WNV disease, and Hillsborough County resident with La Crosse encephalitis acquired the infections out-of-state. The mosquito-borne illness advisories for Holmes, Jackson, Jefferson, Leon, Volusia, Walton, and Washington, as well as the alert for Escambia County, have been lifted due to lowering of transmission risk to background levels.

1. Eastern Equine Encephalitis virus surveillance

Positive samples from **1 human**, **96 live wild birds***, **128 sentinel chickens**, **87 equines**, **2 other mammals**, **3 mosquito pools** and **3 dead birds** were received. To date, 38 of Florida's 67 counties have reported EEEV activity. Date of disease onset (**equines, mammals**), date of death (**birds**), date of collection (**mosquito pools**) and date of first known antibody positive bleed (**sentinels, live wild birds**) is shown in parentheses.

Alachua: **6 sentinel chickens** (5/5, 7/14, 7/21x2, 9/15, 9/16), **2 horses** (5/3, 8/3)

Baker: **4 horses** (4/7, 5/26, 5/30, 8/5)

Bradford: **1 dead bird (emu, 3/27)**, **2 horses** (5/25, 5/26)

Brevard: **1 sentinel chicken** (6/12)

Citrus: **1 sentinel chicken** (1/7)

Clay: **2 horses** (2/27, 7/20)

Columbia: **3 horses** (3/10, 3/26, 4/8)

Duval: **2 sentinel chickens** (5/21, 7/18); **1 horse** (7/26)

Escambia: **3 sentinel chickens** (6/3, 6/24, 7/22)

Flagler: **1 mosquito pool** (*Cs. melanura*, 3/19), **5 sentinel chickens** (3/24, 5/12 x2, 7/7, 7/21); **1 horse** (6/12)

Gadsden: **1 horse** (7/6)

Gulf: 6 sentinel chickens (3/17, 4/7, 4/14, 5/12, 5/27, 7/22), 1 miniature donkey (8/24)
Hillsborough: 1 live wild bird (1 African Crane 2/13), 7 sentinel chickens (9/16 x3, 9/24 x4)
Holmes: 9 horses (6/5, 6/18, 6/19, 6/21, 6/24, 6/26, 6/28, 7/21 x2)
Jackson: 7 horses (4/18, 5/22, 6/20, 6/25, 7/10, 7/22, 10/16)
Jefferson: 3 horses (6/18, 6/23, 12/15)
Lake: 1 horse (1/28)
Leon: 12 sentinel chickens (5/6, 5/27, 6/9, 6/17, 8/4, 8/11, 9/2 x2, 9/23 x3, 9/29), 1 horse (8/10); 1 human (locally-acquired, August)
Madison: 1 canine (5/31); 1 horse (7/17)
Marion: 5 horses (3/14, 5/14, 7/7, 7/27, 8/5)
Nassau: 2 horses (6/23, 7/17); 12 sentinel chickens (7/14 x2, 7/28, 8/4 x2, 8/18 x5, 9/1, 9/8)
Okaloosa: 57 live wild birds (3 White-throated Sparrows 1/02, 1/15, 1/21; 25 Cardinals 1/02, 4/30, 6/16 x2, 6/23, 7/14 x2, 7/28 x3, 7/30, 8/4, 8/6, 8/7, 8/11, 8/18 x2, 8/20, 8/25, 9/2, 9/8, 9/11 x2, 9/15, 12/15; 3 House Sparrows 1/9, 2/13, 11/5; 17 Blue Jays 3/10, 5/12, 6/12, 7/16, 7/21, 8/4 x2, 8/11 x2, 8/25 x2, 9/22 x2, 9/24, 10/9, 10/14, 12/1; 6 Brown Thrashers 4/23, 5/14, 5/19, 5/26, 6/25, 10/27; 1 House Finch 6/16; 1 Northern Mockingbird 9/2; 1 Mockingbird 10/14)
Okeechobee: 1 horse (8/6)
Orange: 18 sentinel chickens (1/7, 1/10, 2/14, 4/21, 5/19, 5/22, 6/16 x2, 6/23, 7/17 x2, 7/28, 8/11 x2, 8/29, 10/27, 11/13, 11/17), 2 live wild birds (1 Red-tailed Hawk 2/6, 1 Red-shouldered Hawk 3/3), 2 horses (6/9, 7/12)
Osceola: 4 horses (4/11, 5/30, 6/6, 7/9)
Palm Beach: 1 horse (6/11)
Polk: 2 horses (2/14, 8/5)
Pinellas: 1 sentinel chicken (7/28)
Putnam: 3 horses (1/8, 6/18, 8/22), 3 sentinel chickens (3/20, 5/5, 8/18)
Santa Rosa: 29 live wild birds (13 Blue Jays 1/14, 3/31 x2, 4/10, 5/7, 5/13, 5/21, 6/3, 7/29, 8/5, 9/9, 12/16 x2; 1 Northern Mockingbird 1/15; 12 Cardinals 4/29, 6/3, 7/1, 7/22 x2, 7/29 x2, 8/5 x4, 10/28; 1 House Finch 7/22; 1 Red-Winged Blackbird 8/12; 1 Northern Cardinal 10/15); 3 horses (5/16, 8/9, 8/29)
Sarasota: 1 sentinel chicken (9/23)
St. Johns: 22 sentinel chickens (3/10, 3/17, 3/24 x4, 3/31, 4/14, 4/28 x2, 5/19 x2, 5/27 x3, 6/2, 6/9 x2, 6/23, 6/30, 7/7, 7/21); 1 horse (5/8)
Sumter: 1 horse (9/8)
Suwannee: 2 dead birds (emus, onset 4/26); 1 alpaca (6/24)
Taylor: 1 horse (7/7)
Volusia: 10 horses (1/4, 1/26, 2/11, 2/26, 3/25, 3/28, 4/20, 5/26, 7/24, 7/28), 3 sentinel chickens (2/4 x2, 2/11); 2 mosquito pools (*Cx. salinarius*, 2/13; *Cx. nigripalpus*, 2/13)
Walton: 3 horses (6/1, 6/19, 8/5), 25 sentinel chickens (6/23 x2, 8/18, 9/8 x6, 9/15, 9/16 x2, 10/27, 11/3 x7, 11/4, 11/12, 11/13, 12/8 x2), 7 live wild birds (4 Cardinals 8/7, 8/14, 10/16 x2; 3 House Sparrows 8/21, 9/11, 9/15)
Washington: 9 horses (5/25, 6/6, 6/9, 6/22 x2, 6/23, 6/25, 7/2, 10/22)

2. West Nile virus surveillance

WNV-positive samples from 3 humans, 20 sentinel chickens and 1 horse were received from 13 counties. Flavivirus-reactive samples were received from 3 live wild birds. It was not determined whether the wild bird samples were reactive to SLEV or WNV. Date of disease onset (horses) and date of first known antibody positive bleed (sentinels, live wild birds) is shown in parentheses.

Bay: 2 sentinel chickens (9/16, 9/23)

Brevard: 1 sentinel chicken (10/22)
Escambia: 2 humans (locally-acquired, September); 3 sentinel chickens (9/29 x2, 10/13)
Hillsborough: 1 live wild bird (1 Vulture 2/28); 3 sentinel chickens (10/28 x3)
Leon: 5 sentinel chickens (8/18 x2, 8/25 x2, 9/2)
Madison: 1 horse (4/15)
Okaloosa: 1 live wild bird (1 Blue Jay 7/16)
Orange: 1 sentinel chicken (9/5)
Pinellas: 1 sentinel chicken (10/6)
Putnam: 1 sentinel chicken (3/20)
Santa Rosa: 1 live wild bird (1 House Finch 1/29)
Wakulla: 1 human (acquired out-of-state, August)
Walton: 3 sentinel chickens (3/20, 8/27, 11/17)

3. Highlands J virus surveillance

Positive samples from 58 sentinel chickens, and 5 mosquito pools were received from 15 counties. Date of first known antibody positive bleed (chickens) and collection date (mosquito pools) is shown in parentheses.

Alachua: 1 sentinel chicken (9/2)
Brevard: 1 sentinel chicken (8/15)
Citrus: 1 sentinel chicken (4/21)
Duval: 4 sentinel chickens (6/16, 8/25 x3)
Escambia: 4 sentinel chickens (2/19, 3/3, 3/18, 6/17)
Flagler: 2 mosquito pools (*Cs. melanura*, 3/19, 5/7); 1 sentinel chicken (8/4)
Gulf: 1 sentinel chicken (2/18)
Leon: 6 sentinel chickens (6/30, 7/8, 7/21, 8/25, 9/15, 10/20)
Nassau: 5 sentinel chickens (6/16, 6/30, 8/11, 8/18, 8/25)
Orange: 7 sentinel chickens (4/17, 6/12 x2, 8/18, 8/29 x2, 9/2)
Osceola: 2 sentinel chickens (6/12, 8/29)
Putnam: 2 sentinel chickens (4/25, 5/16)
St. Johns: 7 sentinel chickens (4/14, 5/19, 6/23 x2, 7/7, 7/28, 11/7)
Volusia: 2 sentinel chickens (2/18, 7/28); 3 mosquito pools (*Cx. nigripalpus*, 2/22, 2/26, 3/28)
Walton: 14 sentinel chickens (5/19, 5/29 x2, 6/11 x3, 6/16, 10/28, 11/3)

4. St. Louis encephalitis virus surveillance

None.

5. California serogroup viruses surveillance

Positive samples were received for 1 human and 1 mosquito pool for California serogroup viruses. Collection date or onset month is shown in parentheses.

Hillsborough: 1 human (La Crosse, acquired out-of-state, July)
Santa Rosa: 1 mosquito pool (*An. crucians*, 7/16)

For more surveillance information, please see the DOH web site at:
<http://www.doh.state.fl.us/Environment/medicine/arboviral/index.html>

Current Bird Mortality Reporting Guidelines:

1. Report dead birds to www.myfwc.com/bird/. From that site, you can link to online bird identification sites. Under most circumstances, testing is not warranted. There is value in the reported information submitted even if the bird is not tested. The Florida Fish and Wildlife Conservation Commission (FWC) tracks all clusters of wild bird mortality in the state.

Between January 1st, 2008 and January 3rd, 2009, 553 reports representing a total of 1,299 dead birds (53 crows, 63 jays, 75 raptors, 1,108 others) were received from 57 of Florida's 67 counties.

2. The DOH Lab in Tampa still accepts dead bird specimens for testing, as long as they are shipped in good condition. When there is a need to verify the cause of an increased corvid (i.e. crows and jays) or overall bird mortality, a representative sample may be submitted to the Tampa laboratory for arboviral testing. Instructions for submission of dead birds are found at: <http://www.doh.state.fl.us/Environment/medicine/arboviral/index.html>. Select "How Do I Report?", and then choose "Protocol for Collecting and Shipping Bird Carcasses" under "Dead Birds" subtopic.

3. Clusters of mortality of single non-corvid species or families of birds such as doves, ducks or pelicans are usually not caused by WNV and should not be submitted for WNV testing. However, we still want them reported to the FWC website.

4. If personnel are not able to offer pick-up service, yet they desire to collect specimens, determine a drop-off station and provide the caller with safe handling instructions. A county may modify their testing approach depending on the availability of other surveillance systems in the county.

Acknowledgements and data sources: 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 determined by the Department of Agriculture and Consumer Services.

*Wild captured bird information is provided by the John A. Mulrennan Public Health Entomology Research and Education Center. For more information, go to <http://www.pherec.org/DECS>, and click on "Arbovirus Ecology" to download the database, then the "Bird Serology" tab.