

Florida 2006 Arbovirus Activity by County

Through the Week of December 24-30, 2006

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Year-to-Date Information for 2006

As of 12-30-2006	Virus	2006 YTD	2005 YTD
Human cases	EEE	0	5
	WN	3*	21
	LaCrosse (CE group)	1*	0
Counties under medical alert/advisory		0	4/5
Counties with activity	EEE	22	50
	WN	20	35
	HJ	6	16
	SLE	7	4
	CE	3	2

*travel outside FL

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

1. Human Surveillance

Eastern equine encephalitis virus (ICD-9 Code 6220)

None.

West Nile virus (ICD-9 Codes 6630 and 6631)

No locally-acquired human cases of arboviral infection were reported yet this year. Three Florida residents, from Escambia (2) and Palm Beach counties, with travel history out-of-state were confirmed with West Nile virus infections in August and September. These are reported as Florida cases acquired out-of-state.

LaCrosse virus (ICD-9 Code 6250)

A Hillsborough County resident with travel history to North Carolina was confirmed with a LaCrosse encephalitis infection in August. The LaCrosse virus is a member of the California Encephalitis group of viruses.

2. Animal Surveillance

Eastern equine encephalitis (EEE) virus

Positive samples from 120 live wild birds in 5 counties, 72 sentinel chickens in 13 counties, and 17 horses in 12 counties were received. To date, 22 of Florida's 67 counties have reported EEE virus activity. Date of disease onset (horses), date of death (birds), and date of first known antibody positive bleed (sentinels, live wild birds) is shown in parentheses.

Alachua: 15 sentinel chickens (6/26 x2, 7/11, 7/25 x3, 7/26, 7/27, 7/31, 9/11 x3, 9/25 x2, 10/10), 1 horse (8/1)

Columbia: 1 horse (3/3)

Duval: 1 horse (1/30), 3 sentinel chickens (10/27, 11/6 x2)

Escambia: 1 horse (9/15), 2 sentinel chickens (10/24 x2)

Flagler: 2 sentinel chickens (6/05, 6/19)

Glades: 1 horse (3/27)

Jefferson: 1 horse (7/08), 5 sentinel chickens (8/12, 8/18 x3, 9/16)

Lake: 2 horses (6/10, 8/24)

Leon: 1 sentinel chicken (8/02)

Levy: 2 horses (3/20, 3/27)

Madison: 2 horses (6/08, 8/1); 4 sentinel chickens (9/02, 9/16 x3)

Marion: 3 horses (2/1, 5/18, 7/07)

Nassau: 8 sentinel chickens (6/25, 7/9, 7/10, 7/31, 7/23, 8/28 x2, 9/18)

Okaloosa: 57 live wild birds (**36 Blue Jays** 1/12, 1/19 x2, 1/25, 3/15, 3/22, 3/27, 4/5, 4/6 x2 (one also positive for antibodies to flavivirus), 4/12, 4/20, 4/26 x2, 5/10, 5/29, 6/01, 6/06, 6/08x3, 6/20, 6/21, 6/28, 7/03, 7/13, 8/02, 8/9 x2 (one also reactive to flavivirus), 8/17 (also reactive to flavivirus), 9/13, 10/5, 10/10, 10/24, 11/9 (also reactive to flavivirus), 11/13; **5 Sparrows** 1/11, 2/8 x2, 2/9, 2/20; **11 Cardinals** 2/8, 2/17, 3/8, 4/19, 5/18, 6/15, 7/03, 7/19, 11/8, 11/20, 12/13; **2 Common Grackles** 4/27, 6/07; **1 Brown Thrasher** 3/23; **1 Red-Winged Blackbird** 6/22; **1 Tufted Titmouse** 9/21)

Orange: 8 sentinel chickens (2/20, 7/10, 7/14, 7/17, 7/21 x2, 7/27, 7/31)

Osceola: 1 sentinel chicken (2/23)

Polk: 1 horse (6/07)

Santa Rosa: 33 live wild birds (**5 Cardinals** 1/10, 2/13, 4/25, 9/26, 10/31; **1 Northern Mockingbird** 3/21; **1 Common Grackle** 4/11; **24 Blue Jays** 4/11, 4/18, 4/25 x2 (one also reactive to flavivirus), 5/2, 5/9 x2 (one also reactive to flavivirus), 5/16, 5/23, 6/13 x3, 6/20 x2, 6/28, 7/11, 7/25, 8/02, 8/16, 10/24, 11/22 x2, 12/13 x2; **2 Brown Thrashers** 4/18, 5/31), 1 horse (6/22)

St. Johns: 1 sentinel chicken (4/10)

Volusia: 4 sentinel chickens (1/09, 3/20 x3), 1 live wild bird (**1 Red-shouldered hawk** 11/9)

Walton: 18 sentinel chickens (1/03, 1/05 x2, 1/18 x2, 2/01 x4, 2/6 x2, 2/9, 2/10 x2, 2/16, 2/17, 3/03, 3/13), 14 live wild birds (**6 Cardinals** 2/23, 3/16, 8/31, 9/21, 10/5, 11/2; **8 Sparrows** 3/16, 3/24 x2, 3/30, 8/24, 9/7 *flavi co-infection*, 10/5, 10/12)

Washington: 15 live wild birds (**2 Sparrows** 4/13, 8/04 (*flavi co-infection*); **9 Cardinals** 2/19, 3/16, 3/24, 4/13, 6/08, 8/24, 9/14, 11/16, 11/23; **2 Red-Winged Blackbirds** 2/19 x2; **2 Blue Jays** 3/24 x2)

Highlands J (HJ) virus

Positive samples from 6 sentinel chickens in 6 counties were received.

Alachua: 1 sentinel chicken (10/10)

Flagler: 1 sentinel chicken (9/11)

Madison: 1 sentinel chicken (8/12)

Nassau: 1 sentinel chicken (9/11)

Volusia: 1 sentinel chicken (1/17)

Walton: 1 sentinel chicken (1/06)

St. Louis encephalitis (SLE) virus

Positive samples from 31 sentinel chickens in 7 counties were received.

Charlotte: 4 sentinel chickens (8/25, 10/6, 11/3 x2)

Collier: 1 sentinel chicken (10/6)

Hendry: 4 sentinel chickens (10/13, 10/20 x2, 11/3)

Indian River: 1 sentinel chicken (9/14)

Lee: 13 sentinel chickens (8/15, 8/21 x2, 10/10 x3, 10/24 x3, 10/31 x2, 11/7, 11/20)

Sarasota: 7 sentinel chickens (8/28, 9/25, 10/3, 10/9, 10/16, 10/23, 12/4)

St. Lucie: 1 sentinel chicken (10/26)

California Group (CE) virus

A positive sample from 1 dead bird was received. Date of death is shown in parentheses.

Gilchrist: 1 dead bird (red-shouldered hawk 6/12)

West Nile (WN) virus

Positive samples from 40 live wild birds in 7 counties (16 of which were reactive to indeterminate flavivirus antibodies**) and 30 sentinel chickens in 16 counties were received. To date, 20 of Florida's 67 counties have reported WNV (or undetermined flavivirus) virus activity. Date of disease onset (horses), date of death (birds), and date of first known antibody positive bleed (sentinels, live wild birds**) is shown in parentheses.

Bay: 1 sentinel chicken (11/16)

Duval: 1 live wild bird (1 Honduran Boat-Billed Heron 7/27); 2 sentinel chickens (9/11, 9/25)

Hillsborough: 4 sentinel chickens (2/21, 2/28, 11/14 x2); 1 live wild bird (1 Egyptian Goose 8/30)

Indian River: 1 sentinel chicken (8/17)

Jackson: 3 sentinel chickens (6/7, 9/18, 10/2)

Lee: 1 sentinel chicken (8/21)

Manatee: 1 sentinel chicken (4/10)

Nassau: 2 sentinel chickens (9/25 x2)

Okaloosa: 5 live wild birds (4 Blue Jays 4/6 (also EEE+), 8/9 (also EEE+), 8/17** (also EEE+), 11/9** (also EEE+), 1 House Sparrow 12/14**)

Orange: 2 sentinel chickens (9/18, 10/2)

Osceola: 1 sentinel chicken (7/5)

Pasco: 1 sentinel chicken (5/1)

Pinellas: 1 live wild bird (1 Red-shouldered Hawk 5/22)

Putnam: 1 sentinel chicken (5/18)

Santa Rosa: 10 live wild birds (7 Blue Jays 4/18, 4/25** (also EEE+), 5/2**, 5/9 x2, 5/23**, 8/8**; 1 Cardinal 5/16, 1 Mourning Dove 5/16, 1 House Finch 9/7**)

Sarasota: 1 sentinel chicken (4/10)

St. Johns: 1 sentinel chicken (10/09)

Volusia: 1 sentinel chicken (10/23)

Walton: 7 sentinel chickens (1/03, 1/20 x2, 4/12, 10/2, 10/24 x2); 14 live wild birds (7 Cardinals 3/16, 4/20 x2, 8/24**, 9/28**, 10/5 x2**; 7 Sparrows 2/16, 3/16 x2, 4/20**, 8/04, 9/7** also reactive to EEE, 11/16)

Washington: 8 live wild birds (1 Red-winged Blackbird 3/16; 3 Sparrows 3/16 x2**, 8/04 (also EEE+); 4 Cardinals 4/27, 7/13 x2, 8/31**)

3. Mosquito Surveillance

California Group (CE) virus was isolated from 7 of the 1,261 mosquito pool specimens received from 13 counties this year (as of 12/15/06). No other arbovirus has yet been isolated from mosquitoes.

Pinellas: CE virus was detected in a pool of *Anopheles crucians* collected on 5/31.

Sarasota: CE virus was detected in 5 pools of *An. crucians* collected on 2/23, 3/2, 3/22, 4/5 and 8/30, and one pool of *Oc. atlanticus* collected on 7/12.

For more surveillance information, please see the DOH web site at:

<http://www.MyFloridaEH.com/hsee/arbo/index.html> or call the Disease Outbreak Information Hotline which offers updates on medical alert status and surveillance at

888-880-5782.

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 (FWCC) tracks all clusters of wild bird mortality in the state. **Between January 1st and December 30th, 1,744 reports representing a total of 3,298 dead birds (147 crows, 150 jays, 113 raptors, and 2,888 others) were received from 64 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.MyFloridaEH.com/community/arboviral/index.html>. Select "How Do I Report?", and then choose "Protocol for Collecting and Shipping Bird Carcasses" under "Dead Birds" subtopic. **Between January 1st and December 16th, 360 specimens were received for testing from 33 counties; one has been found positive for California Group virus.**
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 FWCC 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.

* Travel-associated case with no evidence of arboviral exposure in Florida.

** Flavivirus-reactive wild bird serology results are listed under West Nile Virus for convenience. When so indicated, laboratory testing was unable to determine whether the virus was SLE or WN.

*** 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.