

California Arbovirus Surveillance Bulletin # 5

Week 11 Friday, March 16, 2007

Weekly Summary

COMMENTS

Humans

No human cases have been reported in 2007.

Horses

No new equine cases were reported this week.

In 2007, one horse from Sonoma County has tested positive for West Nile virus (WNV).

Dead Birds

Three WNV positive dead birds were reported from Los Angeles (1) and Orange (2) counties. **This is the first indication of WNV activity in Orange County in 2007.**

In 2007, six dead birds have tested positive for WNV from four counties: Los Angeles (2), Orange (2), San Diego (1), and Santa Clara (1). The California Department of Health Services has received a total of 5,442 dead bird reports (hotline and website) this year.

Mosquito Pools

No positive mosquito pools were reported this week.

In 2007, two WNV positive mosquito pools have been detected from Los Angeles (1) and Riverside (1) counties.

Sentinel Chickens

No new seroconversions were reported this week.

In 2007, two WNV seroconversions have been confirmed in chickens from Imperial (1) and Los Angeles (1) counties.

Website Information

For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov.

TEST SUMMARIES

Humans and Horses

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested	Week	24	0	0	0	0	0	0	0	0
	YTD	185	0	0	0	0	0	0	0	0
Horses Tested	Week	11	0	0	0	0	0	0	0	0
	YTD	36	0	1	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	129	3
YTD	549	6

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Flavivirus* Positive
	YTD	966	2	0	0	0
Mosquito pools	Week	109	0	0	0	0
	YTD	389	2	0	0	0

*Does not include those later confirmed as WNV or SLE

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POSITIVES

Dead Birds

County	City	ZIP	Species	Collected	Tested	Test Method
Los Angeles	El Monte	91731	American Crow	03/06/07	03/06/07	VecTest
Orange	Fountain Valley	92708	American Crow	02/06/07	02/06/07	IHC
Orange	Rancho Santa Margarita	92688	American Crow	02/06/07	02/06/07	IHC

National Comments

2006 Update:

In 2006, WNV activity was reported (as of March 6, 2007) from 48 states, the District of Columbia (DC), and New York City (NYC). A total of 4,256 human cases were reported to the Centers for Disease Control and Prevention (CDC) from 43 states and DC: Alabama (8), Arizona (150), Arkansas (29), California (278), Colorado (345), Connecticut (9), DC (2), Florida (3), Georgia (8), Idaho (996), Illinois (215), Indiana (80), Iowa (37), Kansas (30), Kentucky (6), Louisiana (180), Maryland (11), Massachusetts (3), Michigan (55), Minnesota (65), Mississippi (183), Missouri (62), Montana (34), Nebraska (264), Nevada (123), New Jersey (5), New Mexico (8), New York (24), North Carolina (1), North Dakota (137), Ohio (48), Oklahoma (48), Oregon (69), Pennsylvania (9), South Carolina (1), South Dakota (113), Tennessee (22), Texas (342), Utah (158), Virginia (5), Washington (3), West Virginia (1), Wisconsin (21), and Wyoming (65).

At the same time last year, 3,000 cases had been reported from 43 states, DC, and NYC. Of the 4,256 cases reported in 2006, 1,449 (34%) had West Nile neuroinvasive disease (i.e. encephalitis or meningitis). The median age of the 4,241 cases where data was available was 51 years (range: 3 months-99 years) and 55% were male. A total of 165 WNV-associated fatalities were reported, from Arizona (11), Arkansas (4), California (7), Colorado (7), Connecticut (1), Georgia (1), Idaho (16), Illinois (10), Indiana (5), Kansas (4), Kentucky (1), Louisiana (9), Maryland (1), Michigan (7), Minnesota (3), Missouri (3), Mississippi (14), Nebraska (1), Nevada (1), New Mexico (1), New York (4), North Dakota (1), Ohio (4), Oklahoma (6), Pennsylvania (2), South Dakota (3), Tennessee (1), Texas (29), Utah (5), Wisconsin (1), and Wyoming (2).

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TEST PROTOCOLS

Dead Birds:

All bird species from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Additionally, once WNV has been detected within a county, doves, pigeons, and chickens will no longer be accepted for testing from that county. Corvids that test positive via RAMP or VecTest are no longer confirmed. Dead birds are necropsied at the California Animal Health and Food Safety (CAHFS) laboratory at UC Davis. Oral swabs from American Crows and kidney tissue from all other dead birds are forwarded to the UC Davis Center for Vector borne Diseases (CVEC) for WNV testing using the singleplex RT-PCR Taqman assay and confirmed with a second primer set. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6254.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens submitted each week to the DHS Viral and Rickettsial Disease Laboratory (VRDL) are tested for the presence of antibodies to West Nile virus (WNV), western equine encephalomyelitis (WEE), and St. Louis encephalitis (SLE) viruses by EIA and IFA. The VRDL performs additional testing, including plaque reduction neutralization (PRNT), on specimens from sentinel chickens from geographic areas where WNV is detected for the first time.

Mosquito Pools:

All mosquito pools are screened for WEE, SLE, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch) and the Viral and Rickettsial Disease Laboratory Branch, Division of Communicable Disease Control, California Department of Health Services, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6298, FAX (510) 412-6263, or email [tfeiszli@dhs.ca.gov].