

California Arbovirus Surveillance Bulletin # 13

Week 20 Friday, May 16, 2008

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

No human cases have been reported in 2008.

Horses

No equine cases have been reported in 2008.

Dead Birds & Tree Squirrels

One new West Nile virus (WNV) positive dead bird was reported this week from San Bernardino County. **This is the first indication of WNV activity in San Bernardino County this year.** In 2008, 14 WNV positive dead birds have been detected from Kern (1), Los Angeles (1), Orange (1), Sacramento (1), San Bernardino (1), San Diego (7), Santa Clara (1), and Sutter (1) counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

No new positive mosquito pools were reported this week. In 2008, nine WNV positive mosquito pools have been detected from Riverside County.

Sentinel Chickens

No new seroconversions were reported this week. In 2008, two WNV seroconversions have been detected in chickens from Los Angeles County.

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.

YTD WNV Activity by Element and County, 2008

County	Humans*	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Kern			1			
Los Angeles			1		2	
Orange			1			
Riverside				9		
Sacramento			1			
San Bernardino			1			
San Diego			7			
Santa Clara			1			
Sutter			1			
Totals	0	0	14	9	2	0

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2008 & 2007 YTD West Nile Virus Comparisons		
	2008	2007
Total # Dead Bird Reports	5,454	6,426
# Positive Counties	9	9
# Human Cases/ # Tested	0 / 250	1* / 331
# Horse Cases/ # Tested	0 / 0	1 / 95
# Positive Dead Birds/ # Tested	14 / 747	22 / 1,144
# Positive Mosquito Pools/ # Tested	9 / 2,692	2 / 3,099
# Positive Chicken Sera/ # Tested	2 / 5,629	2 / 5,688
# Positive Squirrels/ # Tested	0 / 30	0 / 35

**Total adjusted to include a 2007 human case reported in 2008*

2008 TEST SUMMARIES

Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	26	0	0	0	0	0	0	0	0
	YTD	250	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	0	0	0	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	61	1
	YTD	747	14
Tree Squirrels	Week	2	0
	YTD	30	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	1,003	0	0	0
	YTD	5,629	2	0	0
Mosquito Pools: RT-PCR	Week	432	0	0	0
	YTD	2,658	9	0	0
Mosquito Pools: RAMP	Week	6	0	N/A	N/A
	YTD	34	0	N/A	N/A

POSITIVES: 5/12/08 – 5/16/08

Dead Birds

County	City	Zip Code	Species	Reported	Tested	Test Method
San Bernardino	Ontario	91764	American Crow	5-9-08	5-9-08	RT-PCR

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NATIONAL COMMENTS

No New Update. As of May 6, 2008, 4 human cases have been reported nationwide this year in Arizona (1), Mississippi (2), and Tennessee (1). None of the cases have resulted in fatalities. In addition, Alabama, California, Florida, and South Carolina have reported non-human WNV activity.

TEST PROTOCOLS

Humans:

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing or confirmation by plaque reduction neutralization test (PRNT).

*Human denominator data only includes specimens tested at VRDL and does not include additional negative specimens that are tested by local agencies only.

Horses:

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

Dead Birds and Tree Squirrels:

All bird and tree squirrel 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 and squirrels are necropsied at CAHFS laboratory at University of California, Davis. Oral swabs from American Crows and kidney tissue from all other dead birds and squirrels are forwarded to the UC Davis Center for Vectorborne 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, Erin Parker, can be reached directly at (510) 412-6254.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to VBDS Laboratory and 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. Positive samples are confirmed by western-blot or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and 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.

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