

California Arbovirus Surveillance Bulletin # 14 (Corrected)

Week 21 Friday, May 23, 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

Twenty-seven new West Nile virus (WNV) positive dead birds were reported this week from Los Angeles, Orange, San Bernardino, San Diego, and Tulare counties. **This is the first indication of WNV activity in Tulare County this year.** In 2008, 41 WNV positive dead birds have been detected from Kern (1), Los Angeles (2), Orange (17), Sacramento (1), San Bernardino (2), San Diego (15), Santa Clara (1), Sutter (1), and Tulare (1) counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

Two new positive mosquito pools were reported this week from Los Angeles and Orange counties. In 2008, 11 WNV positive mosquito pools have been detected from Los Angeles (1), Orange (1) and Riverside County (9).

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			2	1	2	
Orange			17	1		
Riverside				9		
Sacramento			1			
San Bernardino			2			
San Diego			15			
Santa Clara			1			
Sutter			1			
Tulare			1			
Totals	0	0	41	11	2	0

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2008 & 2007 YTD West Nile Virus Comparisons		
	2008	2007
Total # Dead Bird Reports	6,409	7,155
# Positive Counties	10	9
# Human Cases/ # Tested	0 / 261	1 / 331
# Horse Cases/ # Tested	0 / n/a	1 / 95
# Positive Dead Birds/ # Tested	41 / 896	22 / 1,242
# Positive Mosquito Pools/ # Tested	11 / 3,565	3 / 3,648
# Positive Chicken Sera/ # Tested	2 / 6,544	2 / 6,390
# Positive Squirrels/ # Tested	0 / 35	0 / 37

2008 TEST SUMMARIES

Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	11	0	0	0	0	0	0	0	0
	YTD	261	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	134	27
	YTD	896	41
Tree Squirrels	Week	5	0
	YTD	35	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	915	0	0	0
	YTD	6,544	2	0	0
Mosquito Pools: RT-PCR	Week	829	2	0	0
	YTD	3,487	11	0	0
Mosquito Pools: RAMP	Week	44	0	N/A	N/A
	YTD	78	0	N/A	N/A

POSITIVES: 5/19/08 – 5/23/08

Dead Birds

County	City	Zip Code	Species	Reported	Tested	Test Method
Los Angeles	Woodland Hills	91364	American Crow	5/14/2008	5/19/2008	RT-PCR
Orange	Garden Grove	92843	American Crow	5/1/2008	5/1/2008	RT-PCR
Orange	Garden Grove	92843	American Crow	5/7/2008	5/7/2008	RT-PCR
Orange	Garden Grove	92843	American Crow	5/7/2008	5/7/2008	RT-PCR
Orange	Garden Grove	92843	American Crow	5/9/2008	5/9/2008	RT-PCR
Orange	Huntington Beach	92647	American Crow	5/7/2008	5/7/2008	RT-PCR
Orange	Fountain Valley	92708	House Finch	5/7/2008	5/7/2008	RT-PCR
Orange	Anaheim	92807	House Finch	5/7/2008	5/7/2008	RT-PCR

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Orange	Brea	92821	Hermit Thrush	5/7/2008	5/7/2008	RT-PCR
Orange	San Clemente	92672	Black-headed Grosbeak	5/7/2008	5/7/2008	RT-PCR
Orange	Anaheim	92804	American Crow	5/8/2008	5/8/2008	RT-PCR
Orange	Garden Grove	92843	American Crow	5/20/2008	5/8/2008	RT-PCR
Orange	Anaheim	92802	American Crow	5/8/2008	5/8/2008	RT-PCR
Orange	Fullerton	92835	American Crow	5/20/2008	5/9/2008	RT-PCR
Orange	Garden Grove	92840	Sharp-shinned Hawk	5/5/2008	5/5/2008	RT-PCR
Orange	Orange	92867	American Crow	5/16/2008	5/16/2008	RT-PCR
Orange	Anaheim	92802	American Crow	5/16/2008	5/16/2008	RT-PCR
San Bernardino	Ontario	91762	American Crow	5/15/2008	5/15/2008	VecTest
San Diego	San Diego	92126	American Crow	5/8/2008	5/14/2008	RT-PCR
San Diego	San Diego	92130	American Crow	5/12/2008	5/14/2008	RT-PCR
San Diego	San Diego	92126	Common Raven	5/12/2008	5/14/2008	RT-PCR
San Diego	San Diego	92130	Parrot	5/16/2008	5/14/2008	RT-PCR
San Diego	San Diego	92130	Sharp-shinned Hawk	3/13/08	3/20/08	RT-PCR
San Diego	Fallbrook	92028	American Crow	3/24/08	3/25/08	RT-PCR
San Diego	Santee	92071	American Crow	3/28/08	4/3/08	RT-PCR
San Diego	Fallbrook	92028	American Crow	4/1/08	4/3/08	RT-PCR
Tulare	Visalia	93277	American Crow	5/14/2008	5/19/2008	RT-PCR

Mosquito Pools

Site Code	Pool #	Species	# in Pool	Collected	Tested	County	City	Virus
GRLA2771	247	Cx quinquefasciatus	19	5/15/2008	5/22/2008	Los Angeles	Whittier	WNV
ORCO22	160	Cx tarsalis	26	4/24/2008	5/22/2008	Orange	Irvine	WNV

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.

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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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