

California Arbovirus Surveillance Bulletin # 15

Week 22 Friday, May 30, 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-four new West Nile virus (WNV) positive dead birds were reported this week from Los Angeles, Orange, Sacramento, San Diego, San Joaquin, Santa Clara, Shasta, and Tulare counties. **This is the first indication of WNV activity in San Joaquin and Shasta counties this year.** In 2008, 65 WNV positive dead birds have been detected from Kern (1), Los Angeles (6), Orange (25), Sacramento (2), San Bernardino (2), San Diego (18), San Joaquin (1), Santa Clara (2), Shasta (3), Sutter (1), and Tulare (4) counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

One new positive mosquito pool was reported this week from Los Angeles County. In 2008, 12 WNV positive mosquito pools have been detected from Los Angeles (2), Orange (1) and Riverside (9) counties.

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.

County	Humans*	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Kern			1			
Los Angeles			6	2	2	
Orange			25	1		
Riverside				9		
Sacramento			2			
San Bernardino			2			
San Diego			18			
San Joaquin			1			
Santa Clara			2			
Shasta			3			
Sutter			1			
Tulare			4			
Totals	0	0	65	12	2	0

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2008 & 2007 YTD West Nile Virus Comparisons		
	2008	2007
Total # Dead Bird Reports	7,454	7,821
# Positive Counties	12	9
# Human Cases/ # Tested	0 / 277	0 / 336
# Horse Cases/ # Tested	0 / n/a	1 / 109
# Positive Dead Birds/ # Tested	65 / 1050	23 / 1,364
# Positive Mosquito Pools/ # Tested	12 / 3,933	3 / 4,012
# Positive Chicken Sera/ # Tested	2 / 7,456	2 / 7,540
# Positive Squirrels/ # Tested	0 / 40	0 / 38

2008 TEST SUMMARIES

Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	16	0	0	0	0	0	0	0	0
	YTD	277	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	146	24
	YTD	1050	65
Tree Squirrels	Week	5	0
	YTD	40	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	912	0	0	0
	YTD	7,456	2	0	0
Mosquito Pools: RT-PCR	Week	339	1	0	0
	YTD	3,826	12	0	0
Mosquito Pools: RAMP	Week	29	0	N/A	N/A
	YTD	107	0	N/A	N/A

POSITIVES: 5/26/08 – 5/30/08

Dead Birds

County	City	Zip	Species	Reported	Tested	Test Method
Los Angeles	Cerritos	90703	American Crow	5/16/08	5/27/08	RT-PCR
Los Angeles	Hacienda Heights	91745	American Crow	5/27/08	5/27/08	VecTest
Los Angeles	Temple City	91780	American Crow	5/23/08	5/23/08	VecTest
Los Angeles	Temple City	91780	American Crow	5/15/08	5/27/08	RT-PCR
Orange	Anaheim	92807	Warbling Vireo	5/21/08	5/27/08	RT-PCR
Orange	Anaheim	92802	House Finch	5/21/08	5/27/08	RT-PCR
Orange	Anaheim	92804	American Crow	5/23/08	5/27/08	RT-PCR
Orange	Garden Grove	92840	American Crow	5/21/08	5/27/08	RT-PCR

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Orange	Garden Grove	92840	American Crow	5/23/08	5/27/08	RT-PCR
Orange	Laguna Hills	92653	American Crow	5/21/08	5/27/08	RT-PCR
Orange	Orange	92865	American Crow	5/23/08	5/27/08	RT-PCR
Orange	Villa Park	92861	American Crow	5/23/08	5/27/08	RT-PCR
Sacramento	Antelope	95843	Western Scrub-Jay	5/12/08	5/27/08	RT-PCR
San Diego	San Diego	92127	Western Scrub-Jay	5/8/08	5/21/08	RT-PCR
San Diego	San Diego	92124	American Crow	5/13/08	5/22/08	RT-PCR
San Diego	San Diego	92107	American Crow	5/16/08	5/22/08	RT-PCR
San Joaquin	Tracy	95376	American Crow	5/28/08	5/28/08	RAMP
Santa Clara	San Jose	95129	American Crow	5/20/08	5/20/08	VecTest
Shasta	Palo Cedro	96073	Common Raven	5/16/08	5/16/08	RAMP
Shasta	Palo Cedro	96073	Common Raven	5/16/08	5/19/08	RAMP
Shasta	Redding	96003	Western Scrub-Jay	5/20/08	5/20/08	VecTest
Tulare	Visalia	93277	American Crow	5/16/08	5/27/08	RT-PCR
Tulare	Visalia	93277	Western Scrub-Jay	5/19/08	5/27/08	RT-PCR
Tulare	Visalia	93277	American Crow	5/19/08	5/27/08	RT-PCR

Mosquito Pools

Site Code	Pool #	Species	# in Pool	Collected	Tested	County	City	Virus
GRLA2231	277	Cx quinquefasciatus	31	5/22/2008	5/30/2008	Los Angeles	Downey	WNV

NATIONAL COMMENTS

As of May 27, 2008, 6 human cases have been reported nationwide this year in Arizona (1), Mississippi (3), Tennessee (1), and Texas (1). None of the cases have resulted in fatalities. In addition, Alabama, California, Florida, and South Carolina have reported non-human WNV activity. At this time last year, 6 human cases had been reported nationwide.

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

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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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