

California Arbovirus Surveillance Bulletin # 16

Week 23 Friday, June 6, 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

Thirty-five new West Nile virus (WNV) positive dead birds were reported this week from the following counties: Butte (1), Contra Costa (1), El Dorado (1), Los Angeles (2), Nevada (1), Orange (10), Riverside (1), Sacramento (1), San Bernardino (3), San Diego (3), San Joaquin (2), San Mateo (1), Santa Clara (1), Stanislaus (2), and Tulare (15). **This is the first indication of WNV activity in Butte, Contra Costa, El Dorado, Nevada, San Mateo, and Stanislaus counties this year.** In 2008, 100 WNV positive dead birds have been detected in 18 counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

Eleven new positive mosquito pools were reported this week from the following counties: Contra Costa (1), Los Angeles (2), Orange (1), and Riverside (7) counties. In 2008, 23 WNV positive mosquito pools have been detected in four 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.

2008 & 2007 YTD West Nile Virus Comparisons		
	2008	2007
Total # Dead Bird Reports	8,407	8,515
# Positive Counties	18	9
# Human Cases/ # Tested	0 / 293	0 / 393
# Horse Cases/ # Tested	0 / n/a	1 / 115
# Positive Dead Birds/ # Tested	100 / 1,179	25 / 1,470
# Positive Mosquito Pools/ # Tested	23 / 4,765	4 / 4,642
# Positive Chicken Sera/ # Tested	2 / 8,569	2 / 8,324
# Positive Squirrels/ # Tested	0 / 44	0 / 43

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County	Humans*	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Butte			1			
Contra Costa			1	1		
El Dorado			1			
Kern			1			
Los Angeles			8	4	2	
Nevada			1			
Orange			35	2		
Riverside			1	16		
Sacramento			3			
San Bernardino			5			
San Diego			21			
San Joaquin			3			
San Mateo			1			
Santa Clara			3			
Shasta			3			
Stanislaus			2			
Sutter			1			
Tulare			9			
Totals	0	0	100	23	2	0

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	293	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	136	35
	YTD	1179	100
Tree Squirrels	Week	4	0
	YTD	44	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	1,113	0	0	0
	YTD	8,569	2	0	0
Mosquito Pools: RT-PCR	Week	805	11	0	0
	YTD	4,631	23	0	0
Mosquito Pools: RAMP	Week	27	0	N/A	N/A
	YTD	134	0	N/A	N/A

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POSITIVES: 6/2/08 – 6/6/08

Dead Birds

County	City	Zip	Species	Reported	Tested	Test Method
Butte	Chico	95973	Canada Goose	5/18/08	6/2/08	RT-PCR
Contra Costa	Alamo	94507	Hermit Thrush	5/16/08	6/2/08	RT-PCR
El Dorado	Shingle Springs	95682	Rufous Hummingbird	5/19/08	6/2/08	RT-PCR
Los Angeles	Downey	90241	American Crow	6/2/08	6/2/08	VecTest
Los Angeles	Northridge	91325	American Crow	5/27/08	6/2/08	RT-PCR
Nevada	Grass Valley	95945	House Finch	5/18/08	6/2/08	RT-PCR
Orange	Anaheim	92804	American Crow	5/27/08	5/27/08	RT-PCR
Orange	Anaheim	92804	American Crow	5/27/08	5/27/08	RT-PCR
Orange	Anaheim	92804	American Crow	5/29/08	5/29/08	RT-PCR
Orange	Garden Grove	92840	American Crow	5/27/08	5/27/08	RT-PCR
Orange	Garden Grove	92841	American Crow	5/30/08	5/30/08	RT-PCR
Orange	Garden Grove	92840	American Crow	5/30/08	5/30/08	RT-PCR
Orange	Mission Viejo	92691	American Crow	5/27/08	5/27/08	RT-PCR
Orange	San Clemente	92673	Mourning Dove	5/30/08	5/30/08	RT-PCR
Orange	Santa Ana	92706	American Crow	5/27/08	5/27/08	RT-PCR
Orange	Westminster	92683	American Crow	5/27/08	5/27/08	RT-PCR
Riverside	Corona	92882	American Crow	5/22/08	6/2/08	RT-PCR
Sacramento	Sacramento	95831	American Crow	5/23/08	6/2/08	RT-PCR
San Bernardino	Chino	91710	American Crow	5/28/08	6/2/08	RT-PCR
San Bernardino	Chino	91710	American Crow	5/29/08	5/29/08	RAMP
San Bernardino	Ontario	91764	American Crow	5/29/08	5/30/08	RAMP
San Diego	Encinitas	92024	American Crow	5/27/08	5/30/08	RT-PCR
San Diego	Oceanside	92057	American Crow	5/23/08	5/30/08	RT-PCR
San Diego	San Diego	92126	American Crow	5/27/08	5/30/08	RT-PCR
San Joaquin	Tracy	95304	American Crow	6/2/08	6/2/08	VecTest
San Joaquin	Tracy	95304	American Crow	6/2/08	6/2/08	VecTest
San Mateo	South San Francisco	94080	Other	5/15/08	6/2/08	RT-PCR
Santa Clara	San Jose	95130	American Crow	5/27/08	5/27/08	VecTest
Stanislaus	Modesto	95350	American Crow	5/27/08	6/2/08	RT-PCR
Stanislaus	Modesto	95350	American Crow	6/1/08	6/2/08	RAMP
Tulare	Farmersville	93223	Starling	5/19/08	6/2/08	RT-PCR
Tulare	Visalia	93277	American Crow	5/22/08	6/2/08	RT-PCR
Tulare	Visalia	93277	American Crow	5/27/08	6/2/08	RT-PCR
Tulare	Visalia	93277	American Crow	5/27/08	6/2/08	RT-PCR
Tulare	Visalia	93277	American Crow	5/28/08	6/2/08	RT-PCR

Mosquito Pools

Site Code	Pool #	Species	# in Pool	Collected	Tested	County	City	Virus
CNTR8152	43	Cx tarsalis	50	6/2/2008	6/6/2008	Contra Costa	Knightsen	WNV
NWST0055	98	Cx quinquefasciatus	50	6/2/2008	6/6/2008	Riverside	MIRA LOMA	WNV
RIVR0042	136	Cx quinquefasciatus	9	5/29/2008	6/6/2008	Riverside	Hemet	WNV
RIVR0019	143	Cx erythrothorax	50	6/3/2008	6/5/2008	Riverside	Murietta	WNV

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RIVR0019	147	Cx erythrothorax	50	6/3/2008	6/6/2008	Riverside	Murietta	WNV
RIVR0008	151	Cx tarsalis	36	6/3/2008	6/6/2008	Riverside	Murrieta	WNV
RIVR0068	159	Cx erythrothorax	50	6/3/2008	6/6/2008	Riverside	Temecula	WNV
RIVR0032	183	Cx tarsalis	50	6/4/2008	6/6/2008	Riverside	Nuevo	WNV
GRLA2225	292	Cx quinquefasciatus	13	5/28/2008	6/6/2008	Los Angeles	Rowland Heights	WNV
GRLA2784	311	Cx quinquefasciatus	50	5/28/2008	6/6/2008	Los Angeles	Bellflower	WNV
ORCO8	309	Cx tarsalis	24	5/27/2008	6/6/2008	Orange	Huntington Beach	WNV

NATIONAL COMMENTS

No new update: 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 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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