

California Arbovirus Surveillance Bulletin # 18

Week 25 Friday, June 20, 2008

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

One West Nile virus (WNV) positive human case was reported in Tulare County this week. **This is the first WNV human case identified in 2008.**

Horses

No equine cases have been reported in 2008.

Dead Birds & Tree Squirrels

Twenty-eight new West Nile virus (WNV) positive dead birds were reported this week from the following counties: Los Angeles (5), Riverside (1), San Diego (10), San Joaquin (1), Santa Clara (1), Shasta (1), Sutter (1), and Tulare (8). In 2008, 160 WNV positive dead birds have been detected in 18 counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

Seven new positive mosquito pools were reported this week from the following counties: Los Angeles (2), Riverside (1), Sacramento (1), San Joaquin (2), and Stanislaus (1) counties. In 2008, 40 WNV positive mosquito pools have been detected in eleven 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.

2007 & 2008 YTD West Nile Virus Comparisons		
	2007	2008
Total # Dead Bird Reports	11,582	11,179
# Positive Counties	14	19
# Human Cases/ # Tested	1 / 437	1 / 345
# Horse Cases/ # Tested	2 / 130	0 / 18
# Positive Dead Birds/ # Tested	58 / 1,768	160 / 1,660
# Positive Mosquito Pools/ # Tested	18 / 6,549	40 / 6,694
# Positive Chicken Sera/ # Tested	2 / 10,459	2 / 10,481
# Positive Squirrels/ # Tested	0 / 53	0 / 55

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County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Butte			1			
Contra Costa			1	1		
El Dorado			1			
Fresno				2		
Kern			1	1		
Los Angeles			22	10	2	
Nevada			1			
Orange			40	2		
Riverside			3	17		
Sacramento			3	1		
San Bernardino			5			
San Diego			41			
San Joaquin			5	3		
San Mateo			1			
Santa Clara			4	1		
Shasta			5			
Stanislaus			2	1		
Sutter			2			
Tulare	1		22	1		
Totals	1	0	160	40	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	38	0	1	0	0	0	0	0	0
	YTD	345	0	1	0	0	0	0	0	0
Horses Tested	Week	18	0	0	0	0	0	0	0	0
	YTD	18	0	0	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	220	28
	YTD	1660	160
Tree Squirrels	Week	9	0
	YTD	55	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	910	0	0	0
	YTD	10,481	2	0	0
Mosquito Pools: RT-PCR	Week	1,144	3	0	0
	YTD	6,344	36	0	0
Mosquito Pools: RAMP	Week	85	4	N/A	N/A
	YTD	350	4	N/A	N/A

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POSITIVES: 6/16/08 – 6/20/08

Dead Birds

County	City	Zip	Species	Reported	Tested	Test Method
Los Angeles	Cerritos	90703	American Crow	6/5/08	6/16/08	RT-PCR
Los Angeles	Hidden Hills	91302	American Crow	6/13/08	6/13/08	VecTest
Los Angeles	Diamond Bar	91765	American Crow	5/28/08	6/16/08	RT-PCR
Los Angeles	La Mirada	90638	American Crow	6/2/08	6/16/08	RT-PCR
Los Angeles	La Mirada	90638	American Crow	6/4/08	6/16/08	RT-PCR
Riverside	Corona	92882	American Crow	6/9/08	6/16/08	RT-PCR
San Diego	Bonsall	92003	Barn Owl	6/5/08	6/11/08	RT-PCR
San Diego	Vista	92084	American Crow	6/5/08	6/11/08	RT-PCR
San Diego	Oceanside	92057	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	San Diego	92121	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	Oceanside	92054	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	Cardiff	92007	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	Bonita	91902	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	Fallbrook	92028	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	Oceanside	92054	American Crow	6/9/08	6/13/08	RT-PCR
San Diego	Carlsbad	92009	American Crow	6/12/08	6/11/08	RT-PCR
San Joaquin	Tracy	95376	American Crow	6/12/08	6/12/08	RAMP
Santa Clara	Santa Clara	95050	American Crow	6/6/08	6/6/08	VecTest
Shasta	Anderson	96007	Western Scrub-Jay	6/13/08	6/13/08	VecTest
Sutter	Yuba City	95991	Yellow-billed Magpie	6/9/08	6/16/08	RT-PCR
Tulare	Visalia	93291	American Crow	6/4/08	6/16/08	RT-PCR
Tulare	Visalia	93292	American Crow	6/5/08	6/16/08	RT-PCR
Tulare	Visalia	93291	Western Scrub-Jay	6/5/08	6/16/08	RT-PCR
Tulare	Visalia	93277	House Sparrow	6/9/08	6/16/08	RT-PCR
Tulare	Visalia	93277	American Crow	6/9/08	6/16/08	RT-PCR
Tulare	Visalia	93277	Mourning Dove	6/10/08	6/16/08	RT-PCR
Tulare	Visalia	93277	American Crow	6/10/08	6/16/08	RT-PCR
Tulare	Visalia	93277	American Crow	6/11/08	6/16/08	RT-PCR

Mosquito Pools

Site Code	Pool #	Species	# in Pool	Collected	Tested	City	County	Virus
COAV0043	1091	Cx tarsalis	50	6/12/2008	6/19/2008	Mecca	Riverside	WNV
EAST1013	8047	Cx tarsalis	50	6/17/2008	6/17/2008	Modesto	Stanislaus	WNV
GRLA2249	450	Cx quinquefasciatus	50	6/12/2008	6/20/2008	Pico Rivera	Los Angeles	WNV
GRLA2421	5291	Cx quinquefasciatus	36	6/12/2008	6/20/2008	Panorama City	Los Angeles	WNV
SAYO4250	1625	Cx tarsalis	12	6/12/2008	6/18/2008	Sacramento	Sacramento	WNV
SJCM8076	235	Cx tarsalis	50	6/17/2008	6/17/2008	Stockton	San Joaquin	WNV
SJCM8100	221	Cx tarsalis	28	6/17/2008	6/17/2008	Tracy	San Joaquin	WNV

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NATIONAL COMMENTS

No New Update: As of June 9, 2008, 8 human cases have been reported nationwide this year in Arizona (1), Mississippi (3), Oklahoma (1), Tennessee (1), and Texas (2). None of the cases have resulted in fatalities. In addition, Alabama, California, Florida, Illinois, Indiana, Louisiana, South Carolina, and Utah 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, doves, pigeons, and chickens are no longer be accepted for testing. 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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