

California Arbovirus Surveillance Bulletin # 19

Week 26 Friday, June 27, 2008

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

No new West Nile virus (WNV) positive human cases were reported this week. In 2008, one WNV human case has been identified from Tulare County.

Horses

This week, the California Department of Food and Agriculture reported the first WNV equine case for 2008 from Riverside County.

Dead Birds & Tree Squirrels

Twenty-four new West Nile virus (WNV) positive dead birds were reported this week from the following counties: Los Angeles (7), Orange (5), Sacramento (2), San Diego (5), San Joaquin (1), Stanislaus (2), and Tulare (2). In 2008, 184 WNV positive dead birds have been detected in 18 counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

Eighteen new positive mosquito pools were reported this week from the following counties: Fresno (1), Kern (1), Los Angeles (2), Riverside (1), Sacramento (1), San Bernardino (2), San Diego (1), San Joaquin (7), and Tulare (2) counties. In 2008, 57 WNV positive mosquito pools have been detected in 12 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	11,873	12,524
# Positive Counties	21	19
# Human Cases/ # Tested	2 / 458	1 / 371
# Horse Cases/ # Tested	2 / 130	1 / 19
# Positive Dead Birds/ # Tested	100 / 1,987	184 / 1,874
# Positive Mosquito Pools/ # Tested	73 / 7,578	57 / 7,719
# Positive Chicken Sera/ # Tested	4 / 11,442	2 / 11,776
# Positive Squirrels/ # Tested	0 / 68	0 / 71

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YTD WNV Activity by Element and County, 2008

County	Humans	Horses	Dead Birds	Losquito	Poolntinel	Chicke	Squirrels
Butte			1				
Contra Costa			1	1			
El Dorado			1				
Fresno					3		
Kern			1	2			
Los Angeles			29	12		2	
Nevada			1				
Orange			45	2			
Riverside		1	3	18			
Sacramento			5	2			
San Bernardino			5	2			
San Diego			46	1			
San Joaquin			6	10			
San Mateo			1				
Santa Clara			4	1			
Shasta			5				
Stanislaus			4				
Sutter			2				
Tulare	1		24	3			
Totals	1	1	184	57	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	26	0	0	0	0	0	0	0	0
	YTD	371	0	1	0	0	0	0	0	0
Horses Tested	Week	1	0	1	0	0	0	0	0	0
	YTD	19	0	1	0	0	0	0	0	0

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Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	218	24
	YTD	1874	184
Tree Squirrels	Week	16	0
	YTD	71	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	1,295	0	0	0
	YTD	11,776	2	0	0
Mosquito Pools: RT-PCR	Week	885	11	0	0
	YTD	7,229	47	0	0
Mosquito Pools: RAMP	Week	140	7	N/A	N/A
	YTD	490	10	N/A	N/A

POSITIVES: 6/23/08 – 6/27/08

Dead Birds

County	City	Zip	Species	Reported	Tested	Test Method
Los Angeles	Arcadia	91007	American Crow	6/19/08	6/20/08	VecTest
Los Angeles	Compton	90221	American Crow	6/20/08	6/20/08	VecTest
Los Angeles	Hidden Hills	91302	American Crow	6/13/08	6/23/08	RT-PCR
Los Angeles	Northridge	91325	American Crow	6/18/08	6/20/08	VecTest
Los Angeles	Pico Rivera	90660	American Crow	6/23/08	6/23/08	VecTest
Los Angeles	Whittier	90606	American Crow	6/11/08	6/23/08	RT-PCR
Los Angeles	Woodland Hills	91364	American Crow	6/19/08	6/20/08	VecTest
Orange	Anaheim	92804	American Crow	6/13/08	6/13/08	RT-PCR
Orange	Garden Grove	92840	American Crow	6/13/08	6/13/08	RT-PCR
Orange	Garden Grove	92840	American Crow	5/9/08	5/9/08	RT-PCR
Orange	Mission Viejo	92691	American Crow	6/9/08	6/9/08	RT-PCR
Orange	Villa Park	92861	American Crow	6/13/08	6/13/08	RT-PCR
Sacramento	Sacramento	95831	American Crow	6/11/08	6/23/08	RT-PCR
Sacramento	Sacramento	95820	House Finch	6/12/08	6/23/08	RT-PCR
San Diego	El Cajon	92021	American Crow	6/11/08	6/19/08	RT-PCR
San Diego	El Cajon	92021	American Crow	6/16/08	6/19/08	RT-PCR
San Diego	San Diego	92130	American Crow	6/10/08	6/19/08	RT-PCR
San Diego	San Diego	92126	American Crow	6/16/08	6/19/08	RT-PCR
San Diego	Solana Beach	92075	American Crow	6/12/08	6/19/08	RT-PCR
San Joaquin	Tracy	95377	American Crow	6/23/08	6/23/08	RAMP
Stanislaus	Modesto	95356	Western Scrub-Jay	6/13/08	6/23/08	RT-PCR
Stanislaus	Modesto	95350	American Crow	6/19/08	6/19/08	RAMP
Tulare	Visalia	93277	American Crow	6/13/08	6/23/08	RT-PCR
Tulare	Visalia	93277	American Crow	6/18/08	6/23/08	RT-PCR

Mosquito Pools

Site Code	Pool #	Species	# in Pool	Collected	Tested	City	County	Virus
DLTA8532	55	Cx quinquefasciatus	14	6/24/2008	6/25/2008	Visalia	Tulare	WNV
DLTA9403	57	Cx quinquefasciatus	50	6/24/2008	6/25/2008	Visalia	Tulare	WNV
FRWS9999	500026	Cx tarsalis	50	6/19/2008	6/26/2008	Firebaugh	Fresno	WNV

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GRLA2097	493	Cx quinquefasciatus	50	6/20/2008	6/27/2008	La Mirada	Los Angeles	WNV
GRLA2779	473	Cx erythrothorax	34	6/18/2008	6/27/2008	Norwalk	Los Angeles	WNV
KERN2002	129	Cx quinquefasciatus	33	6/20/2008	6/24/2008	Bakersfield	Kern	WNV
NWST9401	143	Cx tarsalis	50	6/23/2008	6/26/2008	Corona	Riverside	WNV
SAND0067	14	Cx tarsalis	50	6/17/2008	6/27/2008	Oceanside	San Diego	WNV
SAYO4126	2019	Cx pipiens	50	6/19/2008	6/20/2008	Antelope	Sacramento	WNV
SJCM8097	334	Cx pipiens	50	6/24/2008	6/27/2008	Banta	San Joaquin	WNV
SJCM8097	335	Cx pipiens	48	6/24/2008	6/27/2008	Banta	San Joaquin	WNV
SJCM8100	285	Cx tarsalis	30	6/21/2008	6/27/2008	Tracy	San Joaquin	WNV
SJCM8100	286	Cx pipiens	41	6/21/2008	6/27/2008	Tracy	San Joaquin	WNV
SJCM8100	327	Cx tarsalis	19	6/24/2008	6/27/2008	Tracy	San Joaquin	WNV
SJCM8128	343	Cx tarsalis	18	6/24/2008	6/27/2008	Tracy	San Joaquin	WNV
SJCM8150	371	Cx pipiens	50	6/26/2008	6/27/2008	Stockton	San Joaquin	WNV
WVAL6001	331	Cx quinquefasciatus	50	6/17/2008	6/24/2008	Ontario	San Bernardino	WNV
WVAL6005	341	Cx quinquefasciatus	50	6/18/2008	6/27/2008	Ontario	San Bernardino	WNV

NATIONAL COMMENTS

As of June 24, 2008, 13 human cases have been reported nationwide this year in the following 7 states: Arizona (1), California (1), Mississippi (4), North Dakota (1), Oklahoma (2), Tennessee (1), and Texas (3). None of the cases have resulted in fatalities. At this time last year, 19 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.

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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.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Stan Husted by phone (510) 412-6253, FAX (510) 412-6263, or email: stan.husted@cdph.ca.gov
