

California Arbovirus Surveillance Bulletin # 13

Week 28 Friday, July 16, 2004

Weekly Summary

California Weekly Summary Comments:

Humans:

This week, California reported seven new human cases of WNV from San Bernardino (5) and Los Angeles (2) counties. As of July 15, 2004, a total of 24 human WNV cases have been reported in California: 17 in San Bernardino County, four in Los Angeles County, and three in Riverside County. Of the 24 cases, 12 are classified as West Nile fever cases, 10 are classified as West Nile neuroinvasive disease, and two are of unknown status. There have been no fatalities to date in California.

Equine:

The California Department of Food & Agriculture has confirmed 16 WNV equine cases from Riverside (10) and San Bernardino (6) counties this past week. Currently, the YTD stands at 26 positive horses. We will be working with the CDFA to get more detailed information on these horses.

Dead Birds:

The hotline received 3,885 reported dead birds last week (YTD = 28,576). The UC Davis Center for Vector-borne Diseases (CVEC) reported 97 dead birds tested positive for WNV via RT-PCR: 92 American crows and 5 western scrub jays. The positive birds were collected in a total of 46 cities within the counties of Los Angeles (72), San Bernardino (7), Orange (10), and Riverside (8).

A total of 132 dead birds were tested this week from Los Angeles, Orange, Riverside, and San Bernardino counties; hence 73.5% (97/132) of the birds tested came from these four counties were positive. Forty-three dead birds from 13 other counties in California tested negative.

News Flash:

CVEC reported this week that 90 dead birds have tested positive for WNV: 88 American crows and 2 western scrub jays. The positive birds were collected in a total of 40 cities within the counties of Los Angeles (64), Riverside (16), San Bernardino (8), Orange (1), and Ventura (1).

Mosquito Pools:

CVEC reported 11 WNV positive mosquito pools from Riverside (4), Imperial (3), and Los Angeles (4) counties. The current YTD for positive mosquito pools stands at 169: Riverside (65), Los Angeles (41), San Bernardino (38), Imperial (18), and Orange (7). Detailed summary information on mosquitoes, e.g., chronology of infection, mosquito species, and mosquito infection rates (MIR) will be posted on the WNV website every other week.

Chickens:

Six WNV seroconversions were detected in two new chicken flocks located near San Gabriel in Los Angeles County. The probable seroconversion date was 6/30/04. VRDL tested 1112 samples this week; the current YTD total stands at 75 WNV seroconversions.

Website Information:

For updated information on WNV, please visit the California WNV website, www.westnile.ca.gov; the CDC website, www.cdc.gov; and the USGS website, www.westnilemaps.usgs.gov. Please go to the Vector website at <http://vector.ucdavis.edu/arbo.html> for flock location and more information on WNV and other vector-borne diseases.

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TESTING SUMMARIES

Humans and Equines

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Individuals Tested	Week	37	0	7	0	0	0	0	0	0
	YTD	416	0	24	0	0	0	0	0	0
Suspect Equine Cases	Week	30	0	16	0	0	0	0	0	0
	YTD	177	0	26	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	174	97
YTD	1669	785

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
	YTD	14,676	75	0	0	0
Mosquito pools	Week	530	11	0	0	0
	YTD	4428	169	0	0	0

*This total has been adjusted to include local agency submissions

POSITIVES

Human Positives Reported:

Virus	Date of Onset	Status	Diagnosis	County	Imported/Local	From
WNV	06/28/04	Probable	WN Fever	San Bernardino	Local	
WNV	06/28/04	Probable	WN Neuroinvasive Disease	San Bernardino	Local	
WNV	06/24/04	Probable	WN Fever	San Bernardino	Local	
WNV	06/21/04	Probable	WN Fever	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	07/03/04	Probable	WN Neuroinvasive Disease	San Bernardino	Local	

Chicken Seroconversions Reported by DHS:

Virus	County	State	Acode	City	Location
**** WNV	Los Angeles	CA	SGVA0003	San Gabriel	Sunnyslope Gardens Probable Seroconversion Date: 30-June-04
**** WNV	Los Angeles	CA	SGVA0008	Pomona	Cal Poly - Rose Bowl Float Building Probable Seroconversion Date: 30-June-04

****Indicates a new flock

Virus Isolations From Mosquito Pools:

Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex tarsalis	30-Jun	COAV	721	Mecca	Riverside	8-Jul
WNV	Culex quinquefasciatus	29-Jun	GRLA	672	Long Beach	Los Angeles	8-Jul
WNV	Culex quinquefasciatus	30-Jun	GRLA	679	Rio Hondo Montebello/Pico	Los Angeles	8-Jul
WNV	Culex quinquefasciatus	30-Jun	GRLA	701	Rivera	Los Angeles	8-Jul
WNV	Culex quinquefasciatus	30-Jun	GRLA	683	Whittier	Los Angeles	8-Jul
WNV	Culex tarsalis	29-Jun	IMPR	717	Calipatria	Imperial	8-Jul
WNV	Culex tarsalis	29-Jun	IMPR	710	Niland	Imperial	8-Jul
WNV	Culex tarsalis	29-Jun	IMPR	711	Niland	Imperial	8-Jul
WNV	Culex quinquefasciatus	28-Jun	NWST	296	Riverside	Riverside	2-Jul
WNV	Culex tarsalis	28-Jun	NWST	291	Corona	Riverside	2-Jul
WNV	Culex stigmatosoma	24-Jun	NWST	287	Riverside	Riverside	2-Jul

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Dead Birds Tested Positive for WNV last week

Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Los Angeles	Bellflower	90706	6/28/2004	7/6/2004
Western Scrub-Jay	Los Angeles	Glendale	91208	6/8/2004	7/6/2004
American Crow	Los Angeles	La Habra Heights	90631	6/24/2004	7/6/2004
American Crow	Los Angeles	Lakewood	90713	6/28/2004	7/6/2004
American Crow	Los Angeles	Lakewood	90713	6/28/2004	7/6/2004
American Crow	Los Angeles	Lakewood	90713	6/24/2004	7/6/2004
American Crow	Los Angeles	Lakewood	90713	6/28/2004	7/6/2004
American Crow	Los Angeles	Lakewood	90713	6/22/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90808	6/25/2004	7/6/2004
American Crow	Los Angeles	Los Angeles	90022	6/24/2004	7/6/2004
American Crow	Los Angeles	Montebello	90640	6/23/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/25/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Pico Rivera	90660	6/28/2004	7/6/2004
American Crow	Los Angeles	Rowland Heights	91748	6/28/2004	7/6/2004
American Crow	Los Angeles	Santa Fe Springs	90670	6/23/2004	7/6/2004
American Crow	Los Angeles	Santa Fe Springs	90670	6/23/2004	7/6/2004
American Crow	Los Angeles	El Monte	91733	6/24/2004	7/6/2004
American Crow	Los Angeles	El Monte	91733	6/24/2004	7/6/2004
American Crow	Los Angeles	Whittier	90605	6/28/2004	7/6/2004
American Crow	Los Angeles	Winnetka	91306	6/24/2004	7/6/2004
American Crow	Los Angeles	Canoga Park	91307	6/28/2004	7/6/2004
American Crow	Los Angeles	Glendale	91201	6/24/2004	7/6/2004
American Crow	Los Angeles	Glendale	91201	6/24/2004	7/6/2004
American Crow	Los Angeles	Glendale	91207	6/28/2004	7/6/2004
American Crow	Los Angeles	Granada Hills	91344	6/28/2004	7/6/2004
American Crow	Los Angeles	Lake View Terrace	91342	6/29/2004	7/6/2004
American Crow	Los Angeles	Mission Hills	91345	6/24/2004	7/6/2004
American Crow	Los Angeles	Northridge	91325	6/23/2004	7/6/2004
American Crow	Los Angeles	Northridge	91344	6/23/2004	7/6/2004
American Crow	Los Angeles	Pacoima	91331	6/29/2004	7/6/2004
American Crow	Los Angeles	Studio City	91602	6/28/2004	7/6/2004
American Crow	Los Angeles	Van Nuys	91405	6/28/2004	7/6/2004
American Crow	Los Angeles	Van Nuys	91406	6/28/2004	7/6/2004
American Crow	Los Angeles	Burbank	91501	6/25/2004	7/6/2004
American Crow	Los Angeles	Burbank	91506	6/27/2004	7/6/2004
American Crow	Los Angeles	Canoga Park	91304	6/24/2004	7/6/2004
American Crow	Los Angeles	Carson	90746	6/24/2004	7/6/2004
American Crow	Los Angeles	Granada Hills	91344	6/23/2004	7/6/2004
American Crow	Los Angeles	Inglewood	90305	6/24/2004	7/6/2004
American Crow	Los Angeles	Lakewood	90713	6/24/2004	7/6/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Los Angeles	Northridge	91326	6/23/2004	7/6/2004
American Crow	Los Angeles	Rancho Palo Verdes	90275	6/24/2004	7/6/2004
American Crow	Los Angeles	Rosemead	91770	6/28/2004	7/6/2004
American Crow	Los Angeles	Rosemead	91770-	6/28/2004	7/6/2004
American Crow	Los Angeles	Santa Clarita	91321	6/25/2004	7/6/2004
American Crow	Los Angeles	El Monte	91733	6/24/2004	7/6/2004
American Crow	Los Angeles	Van Nuys	91406	6/28/2004	7/6/2004
American Crow	Los Angeles	Van Nuys	91406	6/25/2004	7/6/2004
American Crow	Los Angeles	Van Nuys	91406	6/24/2004	7/6/2004
American Crow	Los Angeles	Van Nuys	91406	6/23/2004	7/6/2004
American Crow	Los Angeles	Walnut	91789	6/28/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90815	6/23/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90808	6/23/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90808	6/23/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90815	6/29/2004	7/6/2004
Western Scrub-Jay	Los Angeles	Long Beach	90806	6/24/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90815	6/29/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90807	6/28/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90815	6/22/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90815	6/23/2004	7/6/2004
American Crow	Los Angeles	Long Beach	90807	6/28/2004	7/6/2004
American Crow	Riverside	Corona	92881	6/23/2004	7/6/2004
American Crow	Orange	Fullerton	92833	6/16/2004	7/6/2004
American Crow	Orange	Brea	92821	6/21/2004	7/6/2004
Western Scrub-Jay	Orange	Buena Park	90621	6/18/2004	7/6/2004
American Crow	Orange	Cypress	90630	6/15/2004	7/6/2004
American Crow	Orange	Fullerton	92831	6/24/2004	7/6/2004
American Crow	Orange	Fullerton	92832	6/23/2004	7/6/2004
American Crow	Orange	Fullerton	92831	6/23/2004	7/6/2004
American Crow	Orange	Fullerton	92832	6/24/2004	7/6/2004
American Crow	Orange	La Palma	90623	6/23/2004	7/6/2004
American Crow	Orange	Placentia	92870	6/23/2004	7/6/2004
American Crow	Riverside	Cherry Valley	92223	6/23/2004	7/6/2004
American Crow	Riverside	Cherry Valley	92223	6/22/2004	7/6/2004
Western Scrub-Jay	Riverside	Homeland	92548	6/28/2004	7/6/2004
American Crow	Riverside	Moreno Valley	92518	6/24/2004	7/6/2004
American Crow	Riverside	Moreno Valley	92553	6/23/2004	7/6/2004
American Crow	Riverside	Moreno Valley	92557	6/28/2004	7/6/2004
American Crow	Riverside	San Jacinto	92583	6/24/2004	7/6/2004
American Crow	San Bernardino	Upland	91786	6/25/2004	7/6/2004
American Crow	Los Angeles	San Gabriel	91776	6/24/2004	7/6/2004
American Crow	Los Angeles	Sierra Madre	91024	6/25/2004	7/6/2004
Western Scrub-Jay	Los Angeles	Sierra Madre	91024	6/24/2004	7/6/2004
American Crow	Los Angeles	Walnut	91789	6/23/2004	7/6/2004
American Crow	San Bernardino	Alta Loma	91701	6/22/2004	7/6/2004
American Crow	San Bernardino	Chino Hills	91709	6/24/2004	7/6/2004
American Crow	San Bernardino	Rancho Cucamonga	91739	6/23/2004	7/6/2004
American Crow	San Bernardino	Rancho Cucamonga	91739	6/22/2004	7/6/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	San Bernardino	Rancho Cucamonga	91701	6/23/2004	7/6/2004

National Comments:

As of July 13, 2004, West Nile Virus (WNV) activity has been detected in 34 states and Puerto Rico. Colorado, Kansas, and North Dakota reported their first WNV activity this week. One-hundred-thirteen human WNV cases have been reported in ten states: Arizona (66), California (24), Colorado (12), Florida (3), Iowa (1), Michigan (1), Nebraska (1), New Mexico (3), South Dakota (1), and Wyoming (1). At this time in 2003, there were five cases from three states. There have been three WNV-related fatalities nationwide to date. Two fatalities occurred in Arizona residents, and one fatality occurred in Iowa's first human WNV case of the year.

Dead Birds:

Dead bird kidney tissues are tested at CVEC using the PCR Taqman assay, subsequent to carcass necropsy at the California Animal Health and Food Safety (CAHFS) Laboratories. Organ pools from PCR positive carcasses are tested using cell culture for virus isolation. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6251.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens submitted each week to the DHS Viral and Rickettsial Disease Laboratory (VRDL) are 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. The VRDL performs additional testing (including Plaque Reduction Neutralization (PRNT) and IgM Capture – Enzyme Linked Immunosorbent Assay (MAC-ELISA)) on specimens from sentinel chickens in which antibodies are detected in new geographic areas. The VRDL also forwards selected serum to the UC Davis Center for Vectorborne Diseases (CVEC) for additional testing for WNV, WEE, and SLE antibodies as needed.

Mosquito Pools:

All mosquito pools are screened for WEE, SLE, and WNV viral RNA using a Taqman multiplex RT-PCR. All species except *Culex tarsalis* are also tested for California Encephalitis via EIA. All positive pools are confirmed by both singleplex RT-PCR as well as *in situ* EIA.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch) and the Viral and Rickettsial Disease Laboratory Branch, Division of Communicable Disease Control, California Department of Health Services, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Al Hom by phone (510) 412-6254, FAX (510) 412-6263, or email [ahom@dhs.ca.gov].