

California Arbovirus Surveillance Bulletin # 12

Week 27 Friday, July 9, 2004

Weekly Summary

California Weekly Summary Comments:

Humans:

This week, California reported six new human cases of WNV from San Bernardino (4) and Riverside (2) counties. As of July 9, 2004, more than 400 individuals have been tested for WNV within the State's public health laboratory network, which consists of DHS Viral and Rickettsial Disease Laboratory (VRDL) and local public health laboratories. A total of 17 human WNV cases have been reported in CA: 12 in San Bernardino County; 2 in Los Angeles County; and 3 in Riverside County. Of the 17 cases, nine are classified as WN fever cases, and eight are classified as WN neuroinvasive disease. There have been no fatalities to date.

Dead Birds:

The hotline received 3,441 reported dead birds last week (YTD = 23,712). The UC Davis Center for Vectorborne Diseases (CVEC) reported 95 dead birds tested positive for WNV via RT-PCR: 90 American crows, 4 western scrub jays, and 1 house sparrow. The positive birds were collected in a total of 44 cities within the counties of Los Angeles (66), San Bernardino (14), Orange (1), and Riverside (14).

News Flash:

The California Department of Food and Agriculture confirmed two WNV equine cases from Riverside County this week. This brings the current total to 10 horses from Riverside (9) and San Bernardino (1) counties.

CVEC reported this week that 97 dead birds have tested positive for WNV: 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), Riverside (8), San Bernardino (7), and Orange (10).

Mosquito Pools:

CVEC reported 44 WNV positive mosquito pools from Riverside (14), Imperial (1), Los Angeles (7), San Bernardino (19), and Orange (3) counties. Long Beach and San Gabriel Valley recorded their first WNV mosquito activities in 2004. The current YTD for WNV positive mosquito pools stands at 158: Riverside (61), Los Angeles (37), San Bernardino (38), Imperial (15), 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.

Chickens:

VRDL reported 37 seroconversions from Imperial (6), Los Angeles (5), Riverside (10) and San Bernardino (16) counties. Six new flocks had seroconversions. VRDL tested 959 samples this week; the current YTD total stands at 69 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	41	0	6	0	0	0	0	0	0
	YTD	379	0	17	0	0	0	0	0	0
Suspect Equine Cases	Week	22	0	2	0	0	0	0	0	0
	YTD	147	0	10	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	144	95
YTD	1495	688

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
	YTD	13,272	69	0	0	0
Mosquito pools	Week	269	44	0	0	0
	YTD	3898	158	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	Mid-June	Probable	WN Neuroinvasive Disease	San Bernardino	Local	
WNV	06/09/04	Probable	WN Fever	San Bernardino	Local	
WNV	06/21/04	Probable	WN Neuroinvasive Disease	San Bernardino	Local	
WNV	06/22/04	Probable	WN Neuroinvasive Disease	Riverside	Local	
WNV	06/10/04	Confirmed	WN Neuroinvasive Disease	Riverside	Local	
WNV	06/30/04	Probable	WN Neuroinvasive Disease	San Bernardino	Local	

Chicken Seroconversions Reported by DHS:

Virus	County	State	Acode	City	Location
WNV	Imperial	CA	IMPR0010	Niland	Wister Probable Seroconversion Date: 14-June-04
****	WNV Imperial	CA	IMPR0013	Brawley	Brawley Flock Probable Seroconversion Date: 15-June-04
****	WNV Los Angeles	CA	SGVA0002	Monterey Park	Monterey Park Probable Seroconversion Date: 23-June-04
	WNV Riverside	CA	COAV0035	Mecca	Adohr Probable Seroconversion Date: 14-June-04
	WNV Riverside	CA	NWST0004	Rancho Jurupa	Rancho Jurupa Probable Seroconversion Date: 30-June-04
	WNV Riverside	CA	NWST9401	Corona	Corona Airport Probable Seroconversion Date: 30-June-04
****	WNV San Bernardino	CA	SANB0002	Redlands	Treatment Plant Probable Seroconversion Date: 2-June-04
	WNV San Bernardino	CA	SANB0002	Redlands	Treatment Plant Probable Seroconversion Date: 14-June-04
	WNV San Bernardino	CA	SANB0002	Redlands	Treatment Plant Probable Seroconversion Date: 28-June-04
****	WNV San Bernardino	CA	SANB0007	Fontana	Fontana

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	Band: 3004, 3009				Probable Seroconversion Date: 16-June-04
	WNV San Bernardino CA SANB0007 Fontana				Fontana
	Band: 3005, 3006				Probable Seroconversion Date: 29-June-04
	WNV San Bernardino CA SANB0011 Rialto				Rialto Frisbie Park
	Band: 3033, 3034, 3035, 3036, 3039				Probable Seroconversion Date: 28-June-04
****	WNV San Bernardino CA WVAL0001 Chino				8822 Kimball
	Band: 3801, 3806				Probable Seroconversion Date: 17-June-04
****	WNV San Bernardino CA WVAL0007 Montclair				Water District
	Band: 3833				Probable Seroconversion Date: 17-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	21-Jun	COAV	660	Mecca	Riverside	1-July
WNV	Culex tarsalis	21-Jun	COAV	661	Mecca	Riverside	1-July
WNV	Culex tarsalis	21-Jun	COAV	654	Mecca	Riverside	1-July
WNV	Culex tarsalis	21-Jun	COAV	656	Mecca	Riverside	1-July
WNV	Culex tarsalis	21-Jun	COAV	671	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	691	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	695	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	697	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	689	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	686	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	699	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	COAV	700	Mecca	Riverside	1-July
WNV	Culex tarsalis	23-Jun	GRLA	646	So. El Monte	Los Angeles	1-July
WNV	Culex tarsalis	22-Jun	GRLA	603	Long Beach	Los Angeles	1-July
WNV	Culex quinquefasciatus	22-Jun	GRLA	563	Lakewood	Los Angeles	1-July
WNV	Culex tarsalis	28-Jun	IMPR	206	Seeley	Imperial	1-July
WNV	Culex tarsalis	22-Jun	LONG	116	Long Beach	Los Angeles	25-Jun
WNV	Culex tarsalis	21-Jun	NWST	246	Norco	Riverside	25-Jun
WNV	Culex erythrothorax	22-Jun	NWST	269	Mira Loma	Riverside	25-Jun
WNV	Culex tarsalis	22-Jun	ORCO	849	Huntington Beach	Orange	29-Jun
WNV	Culex quinquefasciatus	23-Jun	ORCO	879	Brea	Orange	29-Jun
WNV	Culex quinquefasciatus	23-Jun	ORCO	855	Fullerton	Orange	29-Jun
WNV	Culex tarsalis	17-Jun	SANB	84	Fontana	San Bernardino	1-July
WNV	Culex tarsalis	17-Jun	SANB	85	Fontana	San Bernardino	1-July
WNV	Culex tarsalis	23-Jun	SANB	87	Fontana	San Bernardino	1-July
WNV	Culex quinquefasciatus	23-Jun	SANB	91	Fontana	San Bernardino	1-July
WNV	Culex tarsalis	23-Jun	SANB	92	Fontana	San Bernardino	1-July
WNV	Culex stigmatosoma	25-Jun	SANB	94	Fontana	San Bernardino	1-July
WNV	Culex quinquefasciatus	25-Jun	SANB	96	Fontana	San Bernardino	1-July
WNV	Culex quinquefasciatus	26-Jun	SANB	99	Fontana	San Bernardino	1-July
WMV	Culex quinquefasciatus	26-Jun	SANB	100	Fontana	San Bernardino	1-July
WNV	Culex tarsalis	26-Jun	SANB	101	Fontana	San Bernardino	1-July
WNV	Culex tarsalis	26-Jun	SANB	102	Fontana	San Bernardino	1-July
WNV	Culex stigmatosoma	26-Jun	SANB	103	Fontana	San Bernardino	1-July
WNV	Culex quinquefasciatus	4-Jun	SANB	109	Fontana	San Bernardino	1-July

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WNV	Culex quinquefasciatus	4-Jun	SANB	106	Rialto	San Bernardino	1-July
WNV	Culex stigmatosoma	4-Jun	SANB	107	Rialto	San Bernardino	1-July
WNV	Culex quinquefasciatus	14-Jun	SGVA	27	San Gabriel	Los Angeles	1-July
WNV	Culex tarsalis	8-Jun	SGVA	19	Arcadia	Los Angeles	1-July
WNV	Culex quinquefasciatus	29-Jun	SGVA	37	Covina	Los Angeles	1-July
WNV	Culex quinquefasciatus	22-Jun	WVAL	92	Ontario	San Bernardino	1-July
WNV	Culex quinquefasciatus	22-Jun	WVAL	93	Ontario	San Bernardino	1-July
WNV	Culex quinquefasciatus	22-Jun	WVAL	88	Chino	San Bernardino	1-July
WNV	Culex quinquefasciatus	29-Jun	WVAL	105	Chino	San Bernardino	1-July

Dead Birds Tested Positive for WNV last week

Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Los Angeles	Arcadia	91006	6/21/04	6/28/04
American Crow	Los Angeles	Bradbury	91010	6/21/04	6/28/04
American Crow	Los Angeles	Canoga Park	91304	6/21/04	6/28/04
American Crow	Los Angeles	Cerritos	90703	6/15/04	6/28/04
American Crow	Los Angeles	Cerritos	90703	6/15/04	6/28/04
American Crow	Los Angeles	Cerritos	90703	6/15/04	6/28/04
American Crow	Los Angeles	City of Industry	91745	6/17/04	6/28/04
American Crow	Los Angeles	Claremont	91711	6/21/04	6/28/04
Western Scrub-Jay	Los Angeles	Claremont	91711	6/21/04	6/28/04
American Crow	Los Angeles	Downey	90241	6/17/04	6/28/04
American Crow	Los Angeles	Granada Hills	91344	6/16/04	6/28/04
American Crow	Los Angeles	Granada Hills	91344	6/21/04	6/28/04
American Crow	Los Angeles	Granada Hills	91344	6/21/04	6/28/04
American Crow	Los Angeles	Granada Hills	91344	6/22/04	6/28/04
American Crow	Los Angeles	Hawaiian Gardens	90716	6/17/04	6/28/04
American Crow	Los Angeles	Hawaiian Gardens	90716	6/17/04	6/28/04
American Crow	Los Angeles	La Habra Heights	90631	6/21/04	6/28/04
American Crow	Los Angeles	Lakewood	90712	6/15/04	6/28/04
American Crow	Los Angeles	Lakewood	90713	6/9/04	6/28/04
American Crow	Los Angeles	Lakewood	90713	6/16/04	6/28/04
American Crow	Los Angeles	Long Beach	90804	6/10/04	6/28/04
American Crow	Los Angeles	Long Beach	90807	6/21/04	6/28/04
American Crow	Los Angeles	Monterey Park	91755	6/18/04	6/28/04
American Crow	Los Angeles	North Hills	91343	6/10/04	6/28/04
American Crow	Los Angeles	Northridge	91325	6/17/04	6/28/04
American Crow	Los Angeles	Northridge	91325	6/17/04	6/28/04
American Crow	Los Angeles	Northridge	91325	6/17/04	6/28/04
American Crow	Los Angeles	Northridge	91325	6/18/04	6/28/04
American Crow	Los Angeles	Northridge	91325	6/21/04	6/28/04
American Crow	Los Angeles	Northridge	91326	6/17/04	6/28/04
American Crow	Los Angeles	Panorama City	91402	6/17/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/17/04	6/28/04

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American Crow	Los Angeles	Pico Rivera	90660	6/18/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/21/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/21/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/21/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/22/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/22/04	6/28/04
American Crow	Los Angeles	Pico Rivera	90660	6/22/04	6/28/04
American Crow	Los Angeles	San Marino	91108	6/9/04	6/28/04
American Crow	Los Angeles	San Marino	91108	6/16/04	6/28/04
American Crow	Los Angeles	San Marino	91108	6/17/04	6/28/04
American Crow	Los Angeles	San Marino	91108	6/16/04	6/28/04
American Crow	Los Angeles	San Pedro	90731	6/18/04	6/28/04
American Crow	Los Angeles	Santa Fe Springs	90670	6/10/04	6/28/04
American Crow	Los Angeles	Santa Fe Springs	90670	6/17/04	6/28/04
American Crow	Los Angeles	Santa Fe Springs	90670	6/17/04	6/28/04
American Crow	Los Angeles	Santa Fe Springs	90670	6/21/04	6/28/04
American Crow	Los Angeles	Santa Fe Springs	90670	6/21/04	6/28/04
American Crow	Los Angeles	Sherman Oaks	91423	6/17/04	6/28/04
Western Scrub-Jay	Los Angeles	Sierra Madre	91024	6/16/04	6/28/04
American Crow	Los Angeles	Sierra Madre	91024	6/18/04	6/28/04
American Crow	Los Angeles	Sierra Madre	91024	6/21/04	6/28/04
American Crow	Los Angeles	Sierra Madre	91024	6/21/04	6/28/04
American Crow	Los Angeles	South El Monte	91733	6/21/04	6/28/04
American Crow	Los Angeles	South El Monte	91733	6/21/04	6/28/04
American Crow	Los Angeles	South Gate	90280	6/22/04	6/28/04
American Crow	Los Angeles	Sylmar	91342	6/21/04	6/28/04
Western Scrub-Jay	Los Angeles	Tujunga	91042	6/21/04	6/28/04
American Crow	Los Angeles	Van Nuys	91401	6/16/04	6/28/04
American Crow	Los Angeles	Van Nuys	91405	6/16/04	6/28/04
American Crow	Los Angeles	Van Nuys	91405	6/22/04	6/28/04
American Crow	Los Angeles	Van Nuys	91406	6/20/04	6/28/04
House Sparrow	Los Angeles	West Covina	91790	6/21/04	6/28/04
American Crow	Los Angeles	Whittier	90605	6/14/04	6/28/04
American Crow	Los Angeles	Whittier	90606	6/10/04	6/28/04
American Crow	Orange	Anaheim	92806	6/14/04	6/28/04
American Crow	Riverside	Beaumont	92223	6/21/04	6/28/04
American Crow	Riverside	Cherry Valley	92223	6/17/04	6/28/04
American Crow	Riverside	Corona	92879	6/16/04	6/28/04
American Crow	Riverside	Corona	92879	6/22/04	6/28/04
American Crow	Riverside	Homeland	92548	6/21/04	6/28/04
American Crow	Riverside	Homeland	92548	6/21/04	6/28/04
American Crow	Riverside	Mecca	92254	6/17/04	6/28/04
American Crow	Riverside	Mira Loma	91752	6/16/04	6/28/04
American Crow	Riverside	Mira Loma	91752	6/17/04	6/28/04
American Crow	Riverside	Moreno Valley	92553	6/18/04	6/28/04
American Crow	Riverside	Riverside	92505	6/22/04	6/28/04
American Crow	Riverside	San Jacinto	92583	6/17/04	6/28/04

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American Crow	Riverside	San Jacinto	92583	6/21/04	6/28/04
American Crow	Riverside	San Jacinto	92583-	6/21/04	6/28/04
American Crow	San Bernardino	Alta Loma	91701	6/16/04	6/28/04
American Crow	San Bernardino	Alta Loma	91701	6/23/04	6/28/04
American Crow	San Bernardino	Chino Hills	91709	6/21/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91701	6/16/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91701	6/16/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91730	6/16/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91730	6/17/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91730	6/21/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91739	6/16/04	6/28/04
American Crow	San Bernardino	Rancho Cucamonga	91739	6/21/04	6/28/04
Western Scrub-Jay	San Bernardino	Rancho Cucamonga	91730	6/16/04	6/28/04
American Crow	San Bernardino	Upland	91786	6/18/04	6/28/04
American Crow	San Bernardino	Upland	91786	6/21/04	6/28/04
American Crow	San Bernardino	Yucaipa	92399	6/21/04	6/28/04

National Comments:

As of July 6, 2004, West Nile virus (WNV) activity has been detected in 31 states and Puerto Rico. Connecticut reported its first WNV activity this week. Eighty-four human WNV cases have been reported in 9 states: Arizona (57), California (17), Florida (2), Michigan (1), Nebraska (1), New Mexico (3), South Dakota (1), Wyoming (1), and Iowa (1). There have been two WNV-related fatalities to date nationwide. The first fatality occurred in a resident of Arizona, while the second 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:

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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].