

# California Arbovirus Surveillance Bulletin # 10

Week 25 Friday, June 25, 2004

## Weekly Summary

### California Weekly Summary Comments:

#### **Humans:**

This week, California reported four new human cases of WNV from San Bernardino (2), Los Angeles (1), and Riverside (1) counties. The four individuals are a 61-year-old male, 74-year-old female, 71-year-old male, and 26-year-old male. Three of the individuals had West Nile neuroinvasive disease and were hospitalized. The fourth individual had fever and muscle weakness but was not hospitalized.

As of June 25, 2004, California has now reported a total of ten human WNV cases: 8 in San Bernardino County, 1 in Los Angeles County, and 1 in Riverside County. The cases in Riverside and Los Angeles counties are the first human WNV cases of the year in those counties. Of the ten cases, 7 are classified as West Nile fever cases, and 3 are classified as West Nile neuroinvasive disease. The first human case in California for 2004 was announced on June 8, 2004. There have been no fatalities to date.

#### **Equine News Flash:**

The California Department of Food and Agriculture confirmed four WNV equine cases from Riverside (3) and San Bernardino (1) counties based on 1) positive IgM capture ELISA test; and 2) compatible neurological clinical signs. Only one horse from Riverside, which was vaccinated, survived; the other three were euthanized. More details will be forthcoming in the next bulletin

#### **Dead Birds:**

The hotline received 2,964 reported dead birds last week (YTD = 14,579). CVEC reported 97 dead American crows have tested positive for WNV via RT-PCR from San Bernardino (40), Los Angeles (40), and Riverside (17) on June 17. A total of 128 bird carcasses were tested from these three counties accounting for 75.8% positive results (97/128). Seventeen bird carcasses from nine other counties tested negative. These new positives bring the 2004 totals to 492; San Bernardino (220), Los Angeles (207), Riverside (61), Orange (3), and Ventura (1) counties.

#### **News Flash:**

CVEC reported that 101 dead birds have tested positive for WNV via RT-PCR: 96 American crows, 3 western scrub jays, 1 common raven, and 1 American coot. The coot was the first of its species to test positive for WNV this year. The positive birds were collected in a total of 43 cities with the counties of Los Angeles (36), San Bernardino (35), Orange (17), and Riverside (13).

A total of 155 dead birds were tested last week from Los Angeles, Orange, Riverside, and San Bernardino counties; thus 65.2% (101/155) of the birds tested from these four counties were WNV positive. Furthermore, 100% of the 35 birds from San Bernardino County tested positive for WNV. Twenty-nine dead birds from 15 other CA counties tested negative. The complete list will be published in next week's bulletin.

#### **Mosquito Pools:**

CVEC reported 17 WNV positive mosquito pools from Riverside (12) Orange (2), and San Bernardino (3) counties. Several noteworthy items are of interest: 1) the first reporting of positive collection of *Culex quinquefasciatus* from the desert; 2) the first detection of viral activity in *Cx. erythrothorax*; and 3) the first WNV mosquito pool detection from Orange County. Currently, the YTD positive pools stand at 76: Riverside (36), Los Angeles (21), San Bernardino (14), Imperial (3), and Orange (2) counties.

#### **Chickens:**

The Viral and Rickettsial Disease Laboratory (VRDL) confirmed 24 WNV positive sentinel chicken seroconversions from seven new flocks in Imperial (5), Los Angeles (4), and Riverside (15) counties. Imperial and Los Angeles counties had their first seroconversions this year. The YTD for seroconversions stands at 31: Riverside (22), Imperial (5), and Los Angeles (4).

#### **Website Information:**

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For updated information on WNV, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.ca.gov); the CDC website, [www.cdc.gov](http://www.cdc.gov); and the USGS website, [www.westnilemaps.usgs.gov](http://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.

## POSITIVES

### Human Positives Reported:

Virus	Date of Onset	Status	Diagnosis	County	Imported/Local	From
WNV	9-Jun-04	Probable	WN Encephalitis	San Bernardino	Local	
WNV	14-Jun-04	Probable	WN Meningitis	San Bernardino	Local	
WNV	9-Jun-04	Probable	WN Fever	Los Angeles	Local	
WNV	13-Jun-04	Probable	WN Meningitis	Riverside	Local	

### Chicken Seroconversions Reported by DHS:

	Virus	County	State	Acode	City	Location
****	WNV	Imperial	CA	IMPR0010	Niland	Wister <b>Probable Seroconversion Date</b> 1-Jun-04
				<b>Band:</b> 1329		
	WNV	Imperial	CA	IMPR0010	Niland	Wister <b>Probable Seroconversion Date</b> 14-Jun-04
				<b>Bands:</b> 1327, 1332, 1334, and 1335		
****	WNV	Los Angeles	CA	SGVA0004	Arcadia	LA Arboretum <b>Probable Seroconversion Date</b> 14-Jun-04
				<b>Bands:</b> 3125, 3129, and 3130		
****	WNV	Los Angeles	CA	SGVA0006	Glendora	Los Cerritos Rd. <b>Probable Seroconversion Date</b> 14-Jun-04
				<b>Band:</b> 3137		
****	WNV	Riverside	CA	COAV0035	Mecca	Adohr <b>Probable Seroconversion Date</b> 1-Jun-04
				<b>Bands:</b> 1401 and 1404		
	WNV	Riverside	CA	COAV0035	Mecca	Adohr <b>Probable Seroconversion Date</b> 14-Jun-04
				<b>Bands:</b> 1400, 1402, and 1405		
	WNV	Riverside	CA	COAV0114	North Shore	Desert <b>Probable Seroconversion Date</b> 14-Jun-04
				<b>Band:</b> 1380		
****	WNV	Riverside	CA	COAV0203	Palm Desert	Cook <b>Probable Seroconversion Date</b> 1-Jun-04
				<b>Band:</b> 1277		
****	WNV	Riverside	CA	NWST0004	Rancho Jurupa	Rancho Jurupa Park <b>Probable Seroconversion Date</b> 3-Jun-04
				<b>Band:</b> 2601		
	WNV	Riverside	CA	NWST0004	Rancho Jurupa	Rancho Jurupa Park <b>Probable Seroconversion Date</b> 15-Jun-04
				<b>Bands:</b> 2604, 2605, and 2606		
****	WNV	Riverside	CA	NWST9401	Corona	Corona Airport <b>Probable Seroconversion Date</b> 3-Jun-04
				<b>Band:</b> 2645		
	WNV	Riverside	CA	NWST9401	Corona	Corona Airport <b>Probable Seroconversion Date</b> 15-Jun-04
				<b>Bands:</b> 2641, 2643, and 2650		

\*\*\*\*Indicates a new flock

### Virus Isolations from Mosquito Pools:

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Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex tarsalis	24-May	COAV	447	Mecca	Riverside	11-Jun
WNV	Culex quinquefasciatus	24-May	COAV	451	Mecca	Riverside	11-Jun
WNV	Culex tarsalis	24-May	COAV	441	Mecca	Riverside	11-Jun
WNV	Culex tarsalis	9-Jun	COAV	553	Mecca	Riverside	17-Jun
WNV	Culex tarsalis	9-Jun	COAV	547	Mecca	Riverside	17-Jun
WMV	Culex tarsalis	9-Jun	COAV	550	Mecca	Riverside	17-Jun
WNV	Culex tarsalis	26-May	COAV	474	Mecca	Riverside	11-Jun
WNV	Culex tarsalis	10-Jun	COAV	568	Mecca	Riverside	17-Jun
WNV	Culex erythrothorax	7-Jun	NWST	196	Mira Loma	Riverside	10-Jun
WNV	Culex erythrothorax	7-Jun	NWST	213	Riverside	Riverside	10-Jun
WNV	Culex tarsalis	7-Jun	NWST	221	Riverside	Riverside	10-Jun
WNV	Culex tarsalis	7-Jun	NWST	228	Riverside	Riverside	10-Jun
WNV	Culex quinquefasciatus	2-Jun	ORCO	664	Brea	Orange	11-Jun
WNV	Culex quinquefasciatus	9-Jun	ORCO	733	Brea	Orange	11-Jun
WNV	Culex quinquefasciatus	14-Jun	WVAL	62	Ontario	San Bernardino	17-Jun
WNV	Culex stigmatosoma	14-Jun	WVAL	57	Ontario	San Bernardino	17-Jun
WNV	Culex quinquefasciatus	14-Jun	WVAL	59	Ontario	San Bernardino	17-Jun

## Dead Birds Tested Positive for WNV last week

Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Los Angeles	Pasadena	91107	6/3/2004	6/14/2004
American Crow	San Bernardino	Ontario	91762	5/28/2004	6/14/2004
American Crow	Los Angeles	Whittier	90605	6/1/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/1/2004	6/14/2004
American Crow	San Bernardino	Montclair	91763	6/1/2004	6/14/2004
American Crow	San Bernardino	Ontario	91762	6/1/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/1/2004	6/14/2004
American Crow	Los Angeles	South El Monte	91733	5/28/2004	6/14/2004
American Crow	Los Angeles	Whittier	90603	5/28/2004	6/14/2004
American Crow	Los Angeles	Santa Fe Springs	90670	5/28/2004	6/14/2004
American Crow	Los Angeles	Whittier	90603	6/1/2004	6/14/2004
American Crow	Los Angeles	Santa Fe Springs	90670	6/1/2004	6/14/2004
American Crow	Los Angeles	Norwalk	90650	6/1/2004	6/14/2004
American Crow	Los Angeles	Pomona	91766	6/2/2004	6/14/2004
American Crow	Los Angeles	Cerritos	90703	6/2/2004	6/14/2004
American Crow	Los Angeles	Cerritos	90703	6/2/2004	6/14/2004
American Crow	Riverside	Norco	92860	6/2/2004	6/14/2004
American Crow	Los Angeles	Downey	90240	6/2/2004	6/14/2004
American Crow	Riverside	Norco	92860	6/2/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/2/2004	6/14/2004
American Crow	Riverside	Riverside	92503	6/2/2004	6/14/2004
American Crow	Riverside	Hemet	92545	6/2/2004	6/14/2004
American Crow	Riverside	Corona	92882	6/2/2004	6/14/2004
American Crow	Los Angeles	Sierra Madre	91024	6/3/2004	6/14/2004
Species	County	City	Zip Code	Date Collected	Date Tested

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American Crow	Riverside	Mira Loma	91752	6/2/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/3/2004	6/14/2004
American Crow	Los Angeles	North Hills	91343	6/3/2004	6/14/2004
American Crow	San Bernardino	Ontario	91761	6/3/2004	6/14/2004
American Crow	Riverside	Riverside	92503	6/3/2004	6/14/2004
American Crow	Los Angeles	San Marino	91108	6/3/2004	6/14/2004
American Crow	Los Angeles	Norwalk	90650	6/3/2004	6/14/2004
American Crow	Los Angeles	Norwalk	90650	6/3/2004	6/14/2004
American Crow	Riverside	Riverside	92506	6/3/2004	6/14/2004
American Crow	Riverside	Riverside	92503	6/3/2004	6/14/2004
American Crow	Los Angeles	Pasadena	91108	6/3/2004	6/14/2004
American Crow	Los Angeles	Downey	90242	6/3/2004	6/14/2004
American Crow	San Bernardino	Montclair	91763	6/3/2004	6/14/2004
American Crow	San Bernardino	Ontario	91761	6/3/2004	6/14/2004
American Crow	San Bernardino	Redlands	92374	6/3/2004	6/14/2004
American Crow	Riverside	Riverside	92503	6/3/2004	6/14/2004
American Crow	Riverside	Riverside	92504	6/3/2004	6/14/2004
American Crow	Los Angeles	La Mirada	90638	6/4/2004	6/14/2004
American Crow	Los Angeles	Northridge	91324	6/3/2004	6/14/2004
American Crow	San Bernardino	Colton	92324	6/4/2004	6/14/2004
American Crow	San Bernardino	Redlands	92374	6/4/2004	6/14/2004
American Crow	Riverside	Riverside	92503	6/4/2004	6/14/2004
American Crow	Los Angeles	Pomona	91767	6/3/2004	6/14/2004
American Crow	Los Angeles	Duarte	91010	6/4/2004	6/14/2004
American Crow	San Bernardino	Ontario	91761	6/4/2004	6/14/2004
American Crow	San Bernardino	Ontario	91761	6/4/2004	6/14/2004
American Crow	San Bernardino	Grand Terrace	92313	6/4/2004	6/14/2004
American Crow	San Bernardino	Fontana	92337	6/3/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/7/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/7/2004	6/14/2004
American Crow	San Bernardino	Redlands	92373	6/4/2004	6/14/2004
American Crow	San Bernardino	Ontario	91762	6/4/2004	6/14/2004
American Crow	San Bernardino	Ontario	91762	6/4/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/4/2004	6/14/2004
American Crow	Riverside	Mira Loma	91752	6/7/2004	6/14/2004
American Crow	San Bernardino	Alta Loma	91737	6/7/2004	6/14/2004
American Crow	Los Angeles	North Hills	91343	6/7/2004	6/14/2004
American Crow	Los Angeles	North Hills	91343	6/7/2004	6/14/2004
American Crow	San Bernardino	Highland	92346	6/7/2004	6/14/2004
American Crow	Los Angeles	Downey	90241	6/7/2004	6/14/2004
American Crow	Riverside	Riverside	92509	6/7/2004	6/14/2004
American Crow	Los Angeles	La Mirada	90638	6/2/2004	6/14/2004
American Crow	Los Angeles	Downey	90241	6/3/2004	6/14/2004
American Crow	Los Angeles	Norwalk	90650	6/7/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/7/2004	6/14/2004
American Crow	Los Angeles	La Mirada	90638	6/7/2004	6/14/2004
American Crow	San Bernardino	Colton	92324	6/7/2004	6/14/2004
American Crow	San Bernardino	Redlands	92374	6/7/2004	6/14/2004
American Crow	Los Angeles	Whittier	90603	6/7/2004	6/14/2004
Species	County	City	Zip Code	Date Collected	Date Tested

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American Crow	San Bernardino	Chino	91710	6/7/2004	6/14/2004
American Crow	San Bernardino	Montclair	91763	6/7/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/7/2004	6/14/2004
American Crow	San Bernardino	Rancho Cucamonga	91730	6/7/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/7/2004	6/14/2004
American Crow	San Bernardino	Chino	91710	6/7/2004	6/14/2004
American Crow	San Bernardino	Ontario	91764	6/7/2004	6/14/2004
American Crow	San Bernardino	Rancho Cucamonga	91730	6/7/2004	6/14/2004
American Crow	Los Angeles	Long Beach	90808	6/7/2004	6/14/2004
American Crow	San Bernardino	Colton	92324	6/7/2004	6/14/2004
American Crow	San Bernardino	Yucaipa	92399	6/8/2004	6/14/2004
American Crow	San Bernardino	Loma Linda	92357	6/8/2004	6/14/2004
American Crow	San Bernardino	Loma Linda	92357	6/8/2004	6/14/2004
American Crow	Los Angeles	Glendora	91740	6/8/2004	6/14/2004
American Crow	Los Angeles	Glendora	91741	6/8/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/7/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/7/2004	6/14/2004
American Crow	Los Angeles	Pico Rivera	90660	6/7/2004	6/14/2004
American Crow	Riverside	Riverside	92503	6/8/2004	6/14/2004
American Crow	San Bernardino	Redlands	92373	6/8/2004	6/14/2004
American Crow	San Bernardino	Loma Linda	92354	6/8/2004	6/14/2004
American Crow	Riverside	Mira Loma	91752	6/8/2004	6/14/2004
American Crow	San Bernardino	Redlands	92373	6/8/2004	6/14/2004
American Crow	Riverside	Norco	92860	6/8/2004	6/14/2004

## 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	32	0	4	0	0	0	0	0	0
	YTD	311	0	10	0	0	0	0	0	0
Suspect Equine Cases	Week	10	0	0	0	0	0	0	0	0
	YTD	125	0	0	0	0	0	0	0	0

### Sentinel Chickens and Mosquito Pools

#### Dead Birds

	Number Tested	WNV Positive
Week	145	97
YTD	1167	492

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
Chicken sera	Week	864	24	0	0	0
	YTD	11,031	31	0	0	0
Mosquito pools	Week	237	17	0	0	0
	YTD	3128	76	0	0	0

\*This total has been adjusted to include local agency submissions.

### National Comments:

According to the Centers for Disease Control and Prevention, as of June 22, 2004, West Nile virus (WNV) activity has been detected in 26 states and Puerto Rico. Iowa, Nebraska, and Puerto Rico reported their first WNV activity this week. Thirty-six human WNV cases have been reported in 7 states: Arizona (20), California (10), Florida (2), Nebraska (1), New Mexico (1), South Dakota (1), and Wyoming (1).

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## 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.

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## 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.

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## 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.

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*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].*