

California Arbovirus Surveillance Bulletin # 21

Week 36 Friday, September 10, 2004

Weekly Summary

California Weekly Summary Comments:

Humans:

This week, California reported fifty-six new humans infected with West Nile virus (WNV). As of September 10, 2004, a total of 486 WNV infections have been reported from the following local health jurisdictions: San Bernardino (165), Los Angeles (186), Riverside (81), Orange (25), Kern (11), Fresno (7), Imperial (1), Tulare (1), Ventura (1), Butte (2), Lassen (1), Merced (1), San Diego (1), Shasta (1), Tehama (1), and Yolo (1) counties. Forty-eight of the 486 WNV infections were initially detected in asymptomatic individuals through screening done at blood banks – four of these individuals later became symptomatic. Of the 442 WNV cases with symptoms, 160 are classified as West Nile fever cases, 157 are classified as West Nile neuroinvasive disease, and 125 are of unknown status. The median age for all cases where data was available is 52 years (range: 2-91 years). Median age for West Nile fever cases is 48 years (range 7-82 years). Median age for West Nile neuroinvasive disease cases is 58 years (range:5-91 years). Sixty-two per cent (276/442) of the cases are male. There have been 13 fatalities to date in California in San Bernardino (4), Los Angeles (6), Riverside (2) and Orange (1) counties.

Equine:

The California Department of Food & Agriculture confirmed 54 WNV equine cases from Alpine (1), Butte (2), Colusa (2), Glenn (1), Kern (14), Lake (1), Lassen (2), Los Angeles (3), Mendocino (1), Riverside (2), Sacramento (7), San Bernardino (1), San Diego (1), Shasta (5), and Tehama (11) counties. These are the first WNV positive horse results for Lake, Lassen, and Mendocino counties. Currently, the YTD total stands at 253 positive cases. A total of 115 horses have died or euthanized from the WNV infection.

Dead Birds:

The hotline received 3,468 reported dead birds last week (YTD = 76,658). The UC Davis Center for Vectorborne Diseases (CVEC) reported 153 out of 185 dead birds submitted last week have tested positive for WNV by RT-PCR: acorn woodpecker (1), American crows (43), American kestrels (2), American robin (2), Anna's Hummingbird (1), blackbird (1), black-headed grosbeak (1), black phoebe (1), black-billed magpies (2), Brewer's blackbirds (3), California quails (2), cliff swallow (1), common ravens (2), Cooper's hawks (4), common yellow-throat (1), Evening grosbeak (1), house finches (3), house sparrow (1), lesser goldfinches (2), northern flicker (1), orange-crowned warbler (1), red-shouldered hawk (2), Rufous hummingbirds (2), sharp-shinned hawk (1), Steller's jays (6), varied thrushes (4), western blue bird (1), western sandpiper (1), western screech owl (1), western scrub jays (39), western tanager (2), and yellow-billed magpies (18). The Black-billed magpies, common yellow-throat, orange-crowned warbler, varied thrushes, western sandpiper, cliff swallow, and northern flickers were the first of their species to test positive for WNV this year. The YTD total stands at 2,075 positive bird carcasses.

The positive birds were collected within the 40 counties of Alpine (2), Butte (6), Calaveras (1), Colusa (12), Contra Costa (3), El Dorado (3), Fresno (11), Glenn (3), Humboldt (1), Kern (6), Kings (1), Lake (3), Lassen (3), Madera (1), Mendocino (1), Mono (1), Monterey (2), Napa (1), Nevada (4), Orange (18), Placer (1), Plumas (8), Sacramento (4), San Francisco (1), San Joaquin (1), San Luis Obispo (2), San Mateo (3), Santa Clara (1), Santa Cruz (3), Shasta (6), Siskiyou (1), Sonoma (3), Stanislaus (4), Sutter (4), Tehama (13), Trinity (1), Tulare (3), Tuolumne (8), and Yolo (5).

This was the first indication of WNV in Mono, San Francisco, and Santa Cruz counties.

A cumulative total of 185 dead birds were tested from 40 of the 56 WNV positive counties. Thus 82.7% (153/185) of the birds tested from these counties were WNV positive.

Mosquito Pools:

CVEC reported 93 positive pools from Los Angeles (31), Kern (39), Orange (13), Lake (3), Placer (1), Riverside (1), Sacramento (1), San Joaquin (2), and Tulare (2) counties. This is the first reporting of positive mosquito activity from San Joaquin and Tulare counties. It is of interest to note the first detection of viral activity in *Ochlerotatus melanimon*. To date, 16 CA counties have reported positive mosquito activities. WNV has been isolated from nine mosquito species: *Culex tarsalis*, *Cx. erythrothorax*, *Cx. quinquefasciatus*, *Cx. stigmatosoma*, *Cx. thriambus*, *Cx. pipiens*, *Anopheles hermsi*, and *Ochlerotatus squamiger* and *Oc. melanimon*. The YTD total stands at 833 positive pools.

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Chickens:

Thirty-five WNV chicken seroconversions were detected in 13 flocks from Butte (8), Glenn (1), Kern (5), Los Angeles (7), Orange (3) Riverside (4), San Joaquin (6), Ventura (1) counties. Of the 35 seroconversions, 18 positives came from nine new flocks in Butte (2), Los Angeles (3), Orange (3), Riverside (3), San Joaquin (6), and Ventura (1) counties. This is the first seroconversions from Antelope Valley and Los Angeles County West districts in Los Angeles County, and in Orange, San Joaquin and Ventura counties. Currently, 12 counties: Butte, Glenn, Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Joaquin, Sutter, Tehama, and Ventura have positive WNV seroconversions. The current YTD total stands at 401 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.

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	81	0	56	0	0	0	0	0	0
	YTD	1142	0	486	0	0	0	0	0	0
Suspect Equine Cases	Week	n/a	0	54	0	0	0	0	0	0
	YTD	699	0	253	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	185	153
YTD	3,591	2,075

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
Chicken sera	Week	1193*	35	0	0	0
	YTD	21,944	401	0	0	0
Mosquito pools	Week	551	93	0	0	0
	YTD	9506	833	0	0	0

*This total has been adjusted to include local agency submissions

Human Positives Reported:

POSITIVES

Virus	Date of Onset	Status	Diagnosis	County	Imported/Local	From
WNV	Unknown	Probable	Unknown	Fresno	Local	
WNV	Unknown	Probable	Unknown	Fresno	Local	
WNV	Unknown	Probable	West Nile Fever	San Bernardino	Local	
WNV	7/28/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	8/02/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	7/17/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	Orange	Local	
WNV	Unknown	Probable	West Nile Neuroinvasive Disease	Orange	Local	
WNV	Unknown	Probable	Unknown	Orange	Local	
WNV	8/24/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/19/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	7/14/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/17/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	7/15/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	7/22/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/26/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/20/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/28/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	

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Virus	Date of Onset	Status	Diagnosis	County	Imported/Local	From
WNV	8/17/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/27/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/21/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/11/04	Probable	West Nile Neuroinvasive Disease	Fresno	Local	
WNV	8/02/04	Probable	West Nile Neuroinvasive Disease	Kern	Local	
WNV	8/08/04	Probable	West Nile Fever	Kern	Local	
WNV	8/01/04	Probable	West Nile Neuroinvasive Disease	Kern	Local	
WNV	8/18/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	8/05/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	8/21/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	8/24/04	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	8/24/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	West Nile Fever	Riverside	Local	
WNV	Week 33	Probable	West Nile Fever	Tehama	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Orange	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Shasta	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Fresno	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Riverside	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Riverside	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Riverside	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Riverside	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Bernardino	Local	

*Indicates fatality

Chicken Seroconversions Reported by DHS:

Virus	County	State	Acode	City	Location
WNV	Butte	CA	BUCO0002	Biggs	Thebachs
Bands: 1119, 1121 Probable Seroconversion Date: 31-August-04					
**** WNV	Butte	CA	BUCO0005	Honcut	Honcut
Bands: 1145 , 1150 Probable Seroconversion Date: 4-August-04					
WNV	Butte	CA	BUCO0005	Honcut	Honcut
Bands: 1154 Probable Seroconversion Date: 18-August-04					
WNV	Butte	CA	BUCO0005	Honcut	Honcut
Bands: 1146, 1147, 1153 Probable Seroconversion Date: 31-August-04					
WNV	Glenn	CA	GLEN9710	Orland	Orland flock
Bands: 1842 Probable Seroconversion Date: 31-August-04					
WNV	Kern	CA	KERN0104	Bakersfield	Old River
Bands: 1980 Probable Seroconversion Date: 30-August-04					
WNV	Kern	CA	KERN0105	Bakersfield	Wible/Houghton
Band: 1984, 1987, 1990, 2041 Probable Seroconversion Date: 30-August-04					
**** WNV	Los Angeles	CA	ANTV8656	Lancaster	Volmer
Band: 1044 Probable Seroconversion Date: 11-August-04					
WNV	Los Angeles	CA	ANTV8656	Lancaster	Volmer
Band: 1045, 1046, 1047, 1048 Probable Seroconversion Date: 25-August-04					
**** WNV	Los Angeles	CA	LACW1007	Baldwin Hills	Baldwin Hills
Band: 2162 Probable Seroconversion Date: 26-August-04					
**** WNV	Los Angeles	CA	LACW1049	Inglewood	Inglewood cemetery
Band: 2236 Probable Seroconversion Date: 16-August-04					

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Virus	County	State	Acode	City	Location
**** WNV Band: 2693, 2694, 2699	Orange	CA	ORCO0006	Irvine	San Joaquin marsh Probable Seroconversion Date: 10-August-04
**** WNV Band: 2627	Riverside	CA	NWST6666	Lake Elsinore	Lake Elsinore Probable Seroconversion Date: 11-August-04
WNV Band: 2626	Riverside	CA	NWST6666	Lake Elsinore	Lake Elsinore Probable Seroconversion Date: 25-August-04
**** WNV Band: 2788, 2797	Riverside	CA	RIVR0004	Beaumont	Cherry Valley Fire Station Probable Seroconversion Date: 11-August-04
**** WNV Band: 3214, 3215, 3218, 3221, 3222, 3224	San Joaquin	CA	SJCM9906	French Camp	Roberts Island Probable Seroconversion Date: 16-August-04
**** WNV Band: 6985	Ventura	CA	VENT0500	Camarillo	Pancho Rd Probable Seroconversion Date: 12-August -04

****Indicates a new flock

Virus Isolations From Mosquito Pools:

Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex quinquefasciatus	24-Aug	COAV	992	Indio	Riverside	2-Sept
WNV	Culex quinquefasciatus	31-Aug	DLTA	46	Visalia	Tulare	31-Aug
WNV	Culex tarsalis	31-Aug	DLTA	47	Cutler	Tulare	31-Aug
WNV	Culex quinquefasciatus	30-Aug	GRLA	1776	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	30-Aug	GRLA	1778	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	30-Aug	GRLA	1783	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	30-Aug	GRLA	1784	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	30-Aug	GRLA	1785	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	30-Aug	GRLA	1787	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	30-Aug	GRLA	1788	Encino	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	18-Aug	GRLA	3042	Whittier-Narrows	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	18-Aug	GRLA	3045	Rowland Heights	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	18-Aug	GRLA	3047	Rowland Heights	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	18-Aug	GRLA	3050	Rowland Heights	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	23-Aug	GRLA	3051	South El Monte	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	23-Aug	GRLA	3056	Pico Rivera	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	24-Aug	GRLA	3064	Cerritos	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3068	Lakewood	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3069	Lakewood	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3071	Lakewood	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3073	Lakewood	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3075	Lakewood	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3076	Long Beach	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3079	Lakewood	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3080	Los Angeles	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3085	Carson	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3089	East Rancho Dominguez	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	25-Aug	GRLA	3090	East Rancho Dominguez	Los Angeles	2-Sept
WNV	Culex quinquefasciatus	24-Aug	KERN	333	Bakersfield	Kern	1-Sept

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Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex quinquefasciatus	24-Aug	KERN	336	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	25-Aug	KERN	346	Lamont	Kern	1-Sept
WNV	Culex tarsalis	25-Aug	KERN	347	Arvin	Kern	1-Sept
WNV	Culex tarsalis	25-Aug	KERN	349	Arvin	Kern	1-Sept
WNV	Culex tarsalis	25-Aug	KERN	350	Arvin	Kern	1-Sept
WNV	Culex tarsalis	25-Aug	KERN	351	Arvin	Kern	1-Sept
WNV	Culex tarsalis	25-Aug	KERN	355	Arvin	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	359	Arvin	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	360	Arvin	Kern	1-Sept
WNV	Culex quinquefasciatus	27-Aug	KERN	370	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	27-Aug	KERN	371	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	27-Aug	KERN	372	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	27-Aug	KERN	373	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	27-Aug	KERN	374	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	27-Aug	KERN	375	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	376	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	377	Bakersfield	Kern	1-Sept
WNV	Culex tarsalis	26-Aug	KERN	5420	Oildale	Kern	1-Sept
WNV	Culex tarsalis	26-Aug	KERN	5422	Buttonwillow	Kern	1-Sept
WNV	Culex tarsalis	26-Aug	KERN	5424	Buttonwillow	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5425	Buttonwillow	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5427	Buttonwillow	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5428	Buttonwillow	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5430	Buttonwillow	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5431	Buttonwillow	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5432	Buttonwillow	Kern	1-Sept
WNV	Oc. melanimon	26-Aug	KERN	5437	Shafter	Kern	1-Sept
WNV	Culex tarsalis	26-Aug	KERN	5440	Bakersfield	Kern	1-Sept
WNV	Culex tarsalis	26-Aug	KERN	5441	Bakersfield	Kern	1-Sept
WNV	Culex quinquefasciatus	26-Aug	KERN	5442	Bakersfield	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5459	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5460	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5461	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5462	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5465	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5466	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5474	Arvin	Kern	1-Sept
WNV	Culex tarsalis	31-Aug	KERN	5477	Arvin	Kern	1-Sept
WNV	Culex quinquefasciatus	23-Aug	LACW	146	Inglewood	Los Angeles	31-Aug
WNV	Culex stigmatosoma	30-Aug	LAKE	231	Upper Lake	Lake	1-Sept
WNV	Culex tarsalis	30-Aug	LAKE	235	Upper Lake	Lake	1-Sept
WNV	Culex stigmatosoma	31-Aug	LAKE	240	Upper Lake	Lake	1-Sept
WNV	Culex quinquefasciatus	24-Aug	LONG	314	Long Beach	Los Angeles	27-Aug
WNV	Culex quinquefasciatus	25-Aug	LONG	320	Long Beach	Los Angeles	27-Aug
WNV	Culex quinquefasciatus	25-Aug	LONG	321	Long Beach	Los Angeles	27-Aug

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WNV	Culex erythrothorax	25-Aug	LONG	325	Long Beach	Los Angeles	27-Aug
WNV	Culex quinquefasciatus	24-Aug	ORCO	1376	Anaheim	Orange	31-Aug
WNV	Culex quinquefasciatus	24-Aug	ORCO	1377	Fullerton	Orange	31-Aug
WNV	Culex quinquefasciatus	24-Aug	ORCO	1380	Seal Beach	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1386	Brea	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1387	Cypress	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1388	Cypress	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1390	La Habra	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1391	Cypress	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1393	Anaheim	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1394	Buena Park	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1396	Orange	Orange	31-Aug
WNV	Culex quinquefasciatus	25-Aug	ORCO	1397	Anaheim	Orange	31-Aug
WNV	Culex tarsalis	26-Aug	ORCO	1421	Irvine	Orange	31-Aug
WNV	Culex tarsalis	27-Aug	PLCR	102	Roseville	Placer	1-Sept
WNV	Culex erythrothorax	31-Aug	RIVR	197	Murrieta	Riverside	2-Sept
WNV	Culex stigmatosoma	27-Aug	SAYO	915	Slough House/Jackson	Sacramento	30-Aug
WNV	Culex tarsalis	23-Aug	SJCM	376	Manteca	San Joaquin	27-Aug
WNV	Culex pipiens	18-Aug	SJCM	394	Escalon	San Joaquin	2-Sept

Dead Birds Tested Positive for WNV last week

Species	County	City	Zip Code	Date Collected	Date Tested
California Quail	Alpine	Markleeville	96120	8/17/2004	8/30/2004
California Quail	Alpine	Markleeville	96120	8/17/2004	8/30/2004
Western Scrub-Jay	Butte	Chico	95973	8/17/2004	8/30/2004
American Crow	Butte	Gridley	95948	8/18/2004	8/30/2004
American Crow	Butte	Oroville	95966	8/16/2004	8/30/2004
Red-shouldered Hawk	Butte	Oroville	95965	8/17/2004	8/30/2004
Western Scrub-Jay	Butte	Oroville	95966	8/17/2004	8/30/2004
Black Phoebe	Calaveras	Copperopolis	95228	8/13/2004	8/30/2004
American Crow	Colusa	Colusa	95932	8/19/2004	8/30/2004
American Crow	Colusa	Colusa	95932	8/18/2004	8/30/2004
American Crow	Colusa	Colusa	95932	8/23/2004	8/30/2004
American Crow	Colusa	Colusa	95932	8/23/2004	8/30/2004
House Sparrow	Colusa	Colusa	95932	8/23/2004	8/30/2004
Orange-crowned Warbler	Colusa	Colusa	95932	8/19/2004	8/30/2004
Western Scrub-Jay	Colusa	Colusa	95932	8/17/2004	8/30/2004
Yellow-billed Magpie	Colusa	Colusa	95932	8/23/2004	8/30/2004
Western Scrub-Jay	Colusa	Grimes	95950	8/17/2004	8/30/2004
Yellow-billed Magpie	Colusa	Grimes	95950	8/17/2004	8/30/2004
Yellow-billed Magpie	Colusa	Maxwell	95955	8/23/2004	8/30/2004
Yellow-billed Magpie	Colusa	Princeton	95970	8/18/2004	8/30/2004
American Kestrel	Contra Costa	Antioch	94509	8/16/2004	8/30/2004
Cooper's Hawk	Contra Costa	Discovery Bay	94514	8/18/2004	8/30/2004
Western Scrub-Jay	Contra Costa	Orinda	94563	8/20/2004	9/1/04

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Species	County	City	Zip Code	Date Collected	Date Tested
Western Scrub-Jay	El Dorado	Cameron Park	95682	8/16/2004	9/1/04
Steller's Jay	El Dorado	South Lake Tahoe	96150	8/17/2004	8/30/2004
Steller's Jay	El Dorado	South Lake Tahoe	96150	8/17/2004	9/1/04
American Crow	Fresno	Clovis	93611	8/18/2004	8/30/2004
American Crow	Fresno	Clovis	93619	8/19/2004	8/30/2004
Black-headed Grosbeak	Fresno	Clovis	93611	8/17/2004	8/30/2004
Western Scrub-Jay	Fresno	Clovis	93611	8/16/2004	8/30/2004
Western Scrub-Jay	Fresno	Clovis	93611	8/18/2004	8/30/2004
Western Scrub-Jay	Fresno	Clovis	93612	8/19/2004	8/30/2004
Cooper's Hawk	Fresno	Coalinga	93210	8/18/2004	8/30/2004
Western Scrub-Jay	Fresno	Firebaugh	93622	8/17/2004	8/30/2004
American Crow	Fresno	Fresno	93704	8/19/2004	8/30/2004
American Crow	Fresno	Fresno	93727	8/18/2004	8/30/2004
American Crow	Fresno	Fresno	93740	8/16/2004	8/30/2004
American Crow	Glenn	Willows	95988	8/18/2004	8/30/2004
American Crow	Glenn	Willows	95988	8/18/2004	8/30/2004
Western Scrub-Jay	Glenn	Willows	95988	8/16/2004	8/30/2004
American Crow	Humboldt	McKinleyville	95519	8/16/2004	8/30/2004
American Crow	Kern	Bakersfield	93308	8/17/2004	8/30/2004
Western Scrub-Jay	Kern	Bakersfield	93306	8/18/2004	8/30/2004
Western Scrub-Jay	Kern	Bakersfield	93307	8/19/2004	8/30/2004
Western Scrub-Jay	Kern	Bakersfield	93308	8/19/2004	8/30/2004
Western Bluebird	Kern	Glennville	93226	8/17/2004	9/1/04
Common Raven	Kern	Shafter	93263	8/18/2004	8/30/2004
Western Scrub-Jay	Kings	Lemoore	93245	8/18/2004	8/30/2004
American Crow	Lake	Clearlake	95422	8/18/2004	8/30/2004
American Crow	Lake	Clearlake Oaks	95423	8/19/2004	8/30/2004
Western Scrub-Jay	Lake	Lakeport	95453	8/15/2004	8/30/2004
Black-billed Magpie	Lassen	Doyle	96109	8/18/2004	8/30/2004
Steller's Jay	Lassen	Susanville	96130	8/16/2004	9/1/04
Black-billed Magpie	Lassen	Susanville	96127	8/18/2004	8/30/2004
Western Scrub-Jay	Madera	Madera	93637	8/17/2004	8/30/2004
Western Scrub-Jay	Mendocino	Gualala	95445	8/18/2004	8/30/2004
Brewer's Blackbird	Mono	Mammoth Lakes	93546	8/19/2004	8/30/2004
Western Sandpiper	Monterey	Moss Landing	95039	8/17/2004	9/1/04
Western Scrub-Jay	Monterey	Prunedale	93907	8/18/2004	8/30/2004
American Robin	Napa	American Canyon	94503	8/18/2004	9/1/04
Western Scrub-Jay	Nevada	Grass Valley	95949	8/20/2004	8/30/2004
Sharp-shinned hawk	Nevada	Nevada City	95959	8/17/2004	8/30/2004
Western Scrub-Jay	Nevada	Penn Valley	95946	8/19/2004	8/30/2004
Red-tailed Hawk	Nevada	Truckee	96161	8/16/2004	8/30/2004
American Crow	Orange	Anaheim	92802	8/15/2004	8/30/2004
American Crow	Orange	Anaheim	92802	8/17/2004	8/30/2004
American Crow	Orange	Costa Mesa	92627	8/18/2004	8/30/2004
American Crow	Orange	Garden Grove	92840	8/17/2004	8/30/2004
American Crow	Orange	Garden Grove	92840	8/17/2004	8/30/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Orange	Garden Grove	92841	8/17/2004	8/30/2004
American Crow	Orange	Garden Grove	92841	8/17/2004	8/30/2004
House Finch	Orange	Garden Grove	92845	8/19/2004	8/30/2004
Rufous Hummingbird	Orange	Laguna Hills	92653	8/14/2004	8/30/2004
Rufous Hummingbird	Orange	Laguna Woods	92653	8/17/2004	8/30/2004
House Finch	Orange	Los Alamitos	90720	8/18/2004	8/30/2004
American Crow	Orange	Orange	92866	8/18/2004	8/30/2004
American Crow	Orange	Rossmoor	90720	8/16/2004	8/30/2004
American Crow	Orange	Santa Ana	92703	8/17/2004	8/30/2004
American Crow	Orange	Santa Ana	92706	8/17/2004	8/30/2004
American Crow	Orange	Tustin	92780	8/16/2004	8/30/2004
American Crow	Orange	Villa Park	92861	8/12/2004	8/30/2004
Western Scrub-Jay	Orange	Yorba Linda	92886	8/17/2004	8/30/2004
Yellow-billed Magpie	Placer	Granite Bay	95746	8/17/2004	8/30/2004
Brewer's Blackbird	Plumas	Chester	96020	8/23/2004	8/30/2004
House Finch	Plumas	Chester	96020	8/18/2004	9/1/04
Western Tanager	Plumas	Chilcoot	96105	8/17/2004	8/30/2004
American Robin	Plumas	Greenville	95947	8/19/2004	8/30/2004
American Robin	Plumas	Quincy	95971	8/19/2004	8/30/2004
American Robin	Plumas	Taylorville	95983	8/19/2004	8/30/2004
Brewer's Blackbird	Plumas	Westwood	96137	8/18/2004	9/1/04
Evening Grosbeak	Plumas	Westwood	96137	8/19/2004	9/1/04
House Finch	Sacramento	Elk Grove	95624-	8/23/2004	8/30/2004
American Crow	Sacramento	Mcclellan	95652	8/17/2004	8/30/2004
Common Yellowthroat	Sacramento	Sacramento	95817	8/19/2004	8/30/2004
Western Scrub-Jay	Sacramento	Sacramento	95864	8/20/2004	9/1/04
Western Scrub-Jay	San Francisco	San Francisco	94129	8/17/2004	9/1/04
Western Scrub-Jay	San Joaquin	Stockton	95219	8/15/2004	9/1/04
American Kestrel	San Luis Obispo	Arroyo Grande	93420	8/12/2004	8/30/2004
Red-shouldered Hawk	San Luis Obispo	Arroyo Grande	93420	8/17/2004	9/1/04
Steller's Jay	San Mateo	Atherton	94027	8/13/2004	8/30/2004
Steller's Jay	San Mateo	Portola Valley	94028	8/18/2004	9/1/04
American Crow	San Mateo	San Mateo	94403	8/16/2004	8/30/2004
Cooper's Hawk	Santa Clara	Saratoga	95070	8/17/2004	8/30/2004
Western Scrub-Jay	Santa Cruz	Aptos	95003	8/18/2004	9/1/04
Western Scrub-Jay	Santa Cruz	Aptos	95003	8/20/2004	9/1/04
Cliff Swallow	Santa Cruz	Watsonville	95076	8/19/2004	9/1/04
American Crow	Shasta	Cottonwood	96022	8/19/2004	8/30/2004
Steller's Jay	Shasta	Cottonwood	96022	8/18/2004	8/30/2004
Western Scrub-Jay	Shasta	Palo Cedro	96073	8/18/2004	8/30/2004
Common Raven	Shasta	Redding	96003	8/19/2004	8/30/2004
Western Scrub-Jay	Shasta	Redding	96002	8/17/2004	8/30/2004
Yellow-billed Magpie	Shasta	Redding	96001	8/17/2004	8/30/2004
Anna's Hummingbird	Siskiyou	Yreka	96097	8/18/2004	8/30/2004
American Crow	Sonoma	Petaluma	94954	8/17/2004	9/1/04
American Crow	Sonoma	Santa Rosa	95403	8/17/2004	8/30/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
Western Screech-Owl	Sonoma	Santa Rosa	95404	8/18/2004	9/1/04
Western Scrub-Jay	Stanislaus	Modesto	95358	8/19/2004	8/30/2004
Yellow-billed Magpie	Stanislaus	Modesto	95356	8/17/2004	8/30/2004
American Crow	Stanislaus	Modesto	95355	8/18/2004	9/1/04
American Crow	Sutter	Pleasant Grove	95668	8/18/2004	8/30/2004
Yellow-billed Magpie	Sutter	Pleasant Grove	95668	8/19/2004	8/30/2004
Yellow-billed Magpie	Sutter	Pleasant Grove	95668	8/20/2004	8/30/2004
Western Scrub-Jay	Sutter	Yuba City	95993	8/18/2004	8/30/2004
Cooper's Hawk	Tehama	Corning	96021	8/19/2004	8/30/2004
Western Scrub-Jay	Tehama	Corning	96021	8/17/2004	8/30/2004
Western Scrub-Jay	Tehama	Corning	96021	8/7/2004	8/30/2004
Yellow-billed Magpie	Tehama	Corning	96021	8/16/2004	8/30/2004
Yellow-billed Magpie	Tehama	Corning	96021	8/18/2004	8/30/2004
Yellow-billed Magpie	Tehama	Corning	96021	8/18/2004	8/30/2004
Yellow-billed Magpie	Tehama	Corning	96021	8/19/2004	8/30/2004
Yellow-billed Magpie	Tehama	Gerber	96035	8/18/2004	8/30/2004
Yellow-billed Magpie	Tehama	Gerber	96035	8/18/2004	8/30/2004
American Crow	Tehama	Los Molinos	96055	8/17/2004	8/30/2004
American Crow	Tehama	Red Bluff	96080	8/18/2004	8/30/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/16/2004	8/30/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/19/2004	8/30/2004
Western Tanager	Trinity	Weaverville	96093	8/17/2004	9/1/04
Western Scrub-Jay	Tulare	Ivanhoe	93235	8/22/2004	8/30/2004
Western Scrub-Jay	Tulare	Porterville	93257	8/19/2004	8/30/2004
Western Scrub-Jay	Tulare	Visalia	93292	8/16/2004	8/30/2004
Brewer's Blackbird	Tuolumne	Groveland	95321	8/20/2004	8/30/2004
Northern Flicker	Tuolumne	Groveland	95321	8/18/2004	9/1/04
Lesser Goldfinch	Tuolumne	Jamestown	95327	8/18/2004	8/30/2004
American Robin	Tuolumne	Sonora	95370	8/20/2004	8/30/2004
Acorn Woodpecker	Tuolumne	Sonora	95370	8/23/2004	9/1/04
Western Scrub-Jay	Tuolumne	Sonora	95370	8/20/2004	9/1/04
Lesser Goldfinch	Tuolumne	Tuolumne	95379	8/23/2004	9/1/04
American Robin	Tuolumne	Twain Harte	95383	8/18/2004	8/30/2004
American Crow	Yolo	Davis	95616	8/19/2004	8/30/2004
American Crow	Yolo	Davis	95616	8/20/2004	9/1/04
Western Scrub-Jay	Yolo	Davis	95616	8/19/2004	9/1/04
Yellow-billed Magpie	Yolo	Woodland	95695	8/23/2004	8/30/2004
American Crow	Yolo	Woodland	95695	8/18/2004	9/1/04

National Comments:

As of September 7, 2004, West Nile Virus (WNV) activity has been detected in 47 states, Puerto Rico, and New York City. South Carolina reported its first human case in 2004 this week. Over 1100 human WNV cases have been reported in 36 states and New York City. The majority of the cases are have been reported from Arizona California, and Colorado. Of the 1,163 WNV cases where data is available, the median age is 51 years (range: 1 month – 99 years) and 57% are male. Thirty-six percent of the cases were neuroinvasive. There have been 30 WNV-related fatalities nationwide in 2004.

In addition, 98 asymptomatic blood donors who tested positive for West Nile virus have been reported nationwide. Twenty-nine of these blood donors later developed symptoms and were added to the case totals.

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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.

Crows from positive zip codes are no longer accepted for necropsy. Positive Vec-tests from oral swabs from crows are no longer confirmed. Other bird species tested by RT-PCR using singleplex and confirmed with a second primer set.

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. 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. There will be an elimination of *in situ* EIA testing for all mosquito species.

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].