

California Arbovirus Surveillance Bulletin # 20

Week 35 Friday, September 3, 2004

Weekly Summary

California Weekly Summary Comments:

Humans:

This week, California reported 87 new humans infected with West Nile virus (WNV). As of September 3, 2004, a total of 430 WNV infections have been reported from the following counties: San Bernardino (148), Los Angeles (165), Riverside (76), Orange (21), Imperial (1), Kern (8), Fresno (3), Tulare (1), Ventura (1), Butte (2), Lassen (1), Merced (1), San Diego (1), and Yolo (1) counties. Thirty-two of the 430 WNV infections were initially detected in asymptomatic individuals through screening done at blood banks – four of these individuals later became symptomatic. Of the 402 WNV cases with symptoms, 145 are classified as West Nile fever cases, 140 are classified as West Nile neuroinvasive disease, and 117 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 47 years (range 7-82 years). Median age for West Nile neuroinvasive disease cases is 59 years (range: 5-91 years). Sixty-one per cent (246 / 402) of the cases are male. There have been eleven fatalities to date in California in Orange (1), San Bernardino (4), Riverside (1), and Los Angeles (5) counties.

Equine:

The California Department of Food & Agriculture confirmed 41 WNV equine cases from Butte (2), Fresno (3), Glenn (2), Kern (8), Los Angeles (1), Riverside (10), Sacramento (5), San Bernardino (5), Shasta (1), Tehama (3), and Yuba (1) counties. This is the first WNV positive horse result from Yuba County. Currently, the YTD total stands at 199 positive cases. Ninety-two horses have died or euthanatized from the WNV infection.

Dead Birds:

The hotline received 4,772 reported dead birds last week (YTD = 70,877). The UC Davis Center for Vectorborne Diseases (CVEC) reported 197 out of 253 dead birds submitted in the past week have tested positive for WNV by RT-PCR: acorn woodpeckers (2), American crows (58), American kestrel (1), American robin (1), barn owls (4), black-headed grosbeak (1), Brewer's blackbird (1), California towhee (1), common ravens (3), Cooper's hawks (3), European starlings (4), Great blue heron (1), green heron (1), house finches (5), house sparrows (2), lesser goldfinches (2), mourning dove (1), northern mockingbird (1), pine siskins (4), red-breasted sapsucker (1), red tailed hawk (1), sharp-shinned hawk (1), Steller's jays (6), western blue bird (1), western meadowlark (1), western screech owl (1), western scrub jays (58), and yellow-billed magpies (31). The European starlings, Great blue heron, green heron, lesser goldfinches, pine siskins, red-breasted sapsucker, western bluebird, and western meadowlark were the first of their species to test positive for WNV so far this year. The YTD total stands at 1,922 positive bird carcasses.

The positive birds were collected within the 38 counties of Alameda (1), Alpine (1), Amador (1), Butte (10), Colusa (4), Contra Costa (2), El Dorado (5), Fresno (10), Glenn (14), Kern (4), Kings (1), Lake (4), Lassen (1), Los Angeles (23), Marin (4), Mendocino (1), Modoc (1), Monterey (2), Nevada (1), Orange (12), Placer (2), Plumas (5), Riverside (1), Sacramento (12), San Joaquin (3), San Luis Obispo (2), Santa Clara (8), Shasta (23), Siskiyou (5), Solano (2), Sonoma (3), Stanislaus (2), Sutter (3), Tehama (14), Tulare (2), Tuolumne (4), Yolo (3), and Yuba (1). **These are the first WNV positive bird results from the counties of Alpine, Amador, Colusa, Modoc, Monterey, and Tuolumne.**

A cumulative total of 250 dead birds were tested from 44 of the 52 WNV positive counties. Thus 78.8% (197/250) of the birds tested from these counties were WNV positive. Three dead birds from three other counties in CA tested negative this week.

News Flash:

CVEC reported Wednesday that 155 of 187 dead birds have tested positive for WNV. 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 is the first indication of WNV in Mono, San Francisco, and Santa Cruz counties.**

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Mosquito Pools:

CVEC reported 56 WNV positive pools from Los Angeles (41), Shasta (6), Riverside (3), Kern (2), Sacramento (2), Fresno (1), and Orange 1) counties. It is of interest to note the first detection of viral activity in *Culex thriambus*. To date, 14 counties have reported positive mosquito activities. WNV have been isolated from eight mosquito species: *Culex tarsalis*, *Cx. erythrothorax*, *Cx. quinquefasciatus*, *Cx. stigmatosoma*, *Cx. thriambus*, *Cx. pipiens*, *Anopheles hermsi*, and *Ochlerotatus squamiger*. The YTD total stands at 740 positive pools.

Chickens:

Fifty-three WNV chicken seroconversions were detected in 22 flocks from Butte (10), Imperial (4), Kern (11), Los Angeles (13), Riverside (6), San Bernardino (2), Sutter (2) and Tehama (5) counties. Of the 53 seroconversions, 16 positives came from 10 new flocks in Butte (2), Kern (3), Los Angeles (2), Sutter (1), and Tehama (2) counties. This is the first seroconversions from Butte, Sutter and Tehama counties. Currently, nine counties: Imperial, Los Angeles, Riverside, San Bernardino, Kern, Glenn, Butte, Sutter, and Tehama have positive WNV seroconversions. The current YTD total stands at 366 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

Individuals Tested	Week YTD	Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Suspect Equine Cases	Week YTD	126 699	0 0	41 199	0 0	0 0	0 0	0 0	0 0	0 0

Dead Birds

	Number Tested	WNV Positive
Week	253	197
YTD	3,406	1,922

Sentinel Chickens and Mosquito Pools

	Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
Chicken sera	Week YTD	786* 20,751	53 366	0 0	0 0
Mosquito pools	Week YTD	640 8955	56 740	0 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	8/15/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/23/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/20/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/17/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/13/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	West Nile Fever	Riverside	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Orange	Local	
WNV	7/18/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	8/12/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	Unknown	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	Unknown	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	Butte	Local	
WNV	8/03/04	Probable	West Nile Neuroinvasive Disease	Kern	Local	

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Virus	Date of Onset	Status	Diagnosis	County	Imported/Local	From
WNV	8/19/04	Probable	Unknown	Riverside	Local	
WNV	Unknown	Probable	Unknown	Riverside	Local	
WNV	Unknown	Probable	Unknown	Riverside	Local	
WNV	8/16/04	Probable	West Nile Fever	Riverside	Local	
WNV	8/09/04	Probable	West Nile Fever	Riverside	Local	
WNV	8/22/04	Probable	West Nile Fever	Riverside	Local	
WNV	8/23/04	Probable	West Nile Fever	Riverside	Local	
WNV	Unknown	Probable	West Nile Fever	Riverside	Local	
WNV	8/31/04	Probable	West Nile Fever	Riverside	Local	
WNV	Unknown	Probable	Unknown	Riverside	Local	
WNV	Unknown	Probable	Unknown	Riverside	Local	
WNV	Unknown	Probable	Unknown	Orange	Local	
WNV	Unknown	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	8/18/04	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	8/21/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	8/06/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	8/19/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	8/09/04	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	8/10/04	Probable	Unknown	San Bernardino	Local	
WNV	8/09/04	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	8/09/04	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	San Bernardino	Local	
WNV	8/14/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/15/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/21/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/15/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/05/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/13/04	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/08/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/12/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/25/04	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	8/15/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	8/09/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/11/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	8/13/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	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	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	Riverside	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Los Angeles	Local	

*Indicates fatality

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Chicken Seroconversions Reported by DHS:

Virus	County	State	Acode	City	Location
**** WNV	Butte	CA	BUCO0002	Biggs	Thebachs
	Bands: 1116				Probable Seroconversion Date: 4-August-04
**** WNV	Butte	CA	BUCO0002	Biggs	Thebachs
	Bands: 1113, 1118, 1120, 1122				Probable Seroconversion Date: 18-August-04
**** WNV	Butte	CA	BUCO0003	Palermo	Turners
	Bands: 1130				Probable Seroconversion Date: 4-August-04
**** WNV	Butte	CA	BUCO0003	Palermo	Turners
	Bands: 1123, 1126, 1127, 1129				Probable Seroconversion Date: 18-August-04
**** WNV	Imperial	CA	IMPR0002	Seeley	Campbell Road Flock
	Bands: 3890				Probable Seroconversion Date: 23-August-04
**** WNV	Imperial	CA	IMPR0012	Westmorland	Westmorlan23
	Bands: 1311				Probable Seroconversion Date: 23-August-04
**** WNV	Imperial	CA	IMPR0016	Holtville	Zenos Road Flock
	Band: 3873, 3878				Probable Seroconversion Date: 23-August-04
**** WNV	Kern	CA	KERN0104	Bakersfield	Old River
	Band: 1977				Probable Seroconversion Date: 2-August-04
WNV	Kern	CA	KERN0104	Bakersfield	Old River
	Band: 1972, 1974				Probable Seroconversion Date: 16-August-04
**** WNV	Kern	CA	KERN0105	Bakersfield	Wible/Houghton
	Band: 1983				Probable Seroconversion Date: 2-August-04
WNV	Kern	CA	KERN0105	Bakersfield	Wible/Houghton
	Band: 1982				Probable Seroconversion Date: 16-August-04
**** WNV	Kern	CA	KERN0110	Bakersfield	Kern River
	Band: 2012, 2013				Probable Seroconversion Date: 2-August-04
WNV	Kern	CA	KERN0110	Bakersfield	Kern River
	Band: 2014, 2015, 2016, 2043				Probable Seroconversion Date: 16-August-04
WNV	Los Angeles	CA	GRLA1002	Los Angeles	Griffith Park
	Band: 1868				Probable Seroconversion Date: 25-August-04
WNV	Los Angeles	CA	GRLA2002	Long Beach	El Dorado Park
	Band: 3917, 3918				Probable Seroconversion Date: 23-August-04
WNV	Los Angeles	CA	LONG0002	Long Beach	Harbor Terminal
	Band: 1212				Probable Seroconversion Date: 23-August-04
**** WNV	Los Angeles	CA	LONG0003	Long Beach	Del Ano Blvd Horse stable
	Band: 1224				Probable Seroconversion Date: 9-August-04
WNV	Los Angles	CA	LONG0003	Long Beach	Del Ano Blvd Horse stable
	Band: 1222				Probable Seroconversion Date: 23-August-04
**** WNV	Los Angeles	CA	LONG0004	Long Beach	Long Beach Marina Oil
	Band: 1201, 1203, 1206, 1207, 1209				Probable Seroconversion Date: 9-August-04
WNV	Los Angeles	CA	LONG0004	Long Beach	Long Beach Marina Oil
	Band: 1202, 1205				Probable Seroconversion Date: 23-August-04
WNV	Riverside	CA	COAV0035	Mecca	Adohr
	Band: 1448				Probable Seroconversion Date: 23-August-04
WNV	Riverside	CA	COAV0200	Mecca	Mecca
	Band: 3819, 3823, 3824, and 3838				Probable Seroconversion Date: 23-August-04
WNV	Riverside	CA	COAV0204	Indio	York
	Band: 1340, 1342				Probable Seroconversion Date: 23-August-04
WNV	Riverside	CA	NWST0002	Glen Ivy Hot Spring	Temescal Fire Station
	Band: 2632, 2636				Probable Seroconversion Date: 25-August-04

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Virus	County	State	Acode	City	Location
WNV	San Bernardino	CA	SANB0001	Needles	Treatment Plant
Band: 2956					Probable Seroconversion Date: 23-August-04
WNV	San Bernardino	CA	SANB0002	Redlands	Treatment Plant
Band: 2963					Probable Seroconversion Date: 24-August-04
****	WNV Sutter	CA	SUYA0031	Rio Oso	Barker
Band: 3570					Probable Seroconversion Date: 5-August-04
WNV	Sutter	CA	SUYA0031	Rio Oso	Barker
Band: 3569					Probable Seroconversion Date: 19-August-04
****	WNV Tehama	CA	TEHA0001	Red Bluff	Red Bluff Shop
Band: 3608					Probable Seroconversion Date: 4-August-04
WNV	Tehama	CA	TEHA0001	Red Bluff	Red Bluff Shop
Band: 3601, 3605					Probable Seroconversion Date: 19-August-04
****	WNV Tehama	CA	TEHA0002	Corning	Woodson Bridge
Band: 3613, 3618					Probable Seroconversion Date: 4-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	25-Aug	CNSL	67	Easton	Fresno	26-Aug
WNV	Culex quinquefasciatus	16-Aug	COAV	939	La Quinta	Riverside	25-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	999	Harbor City	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1705	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1706	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1707	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1708	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1709	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1710	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1711	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1712	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1713	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1714	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1715	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1716	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1717	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1718	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1719	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1720	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1721	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1722	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1723	Encino	Los Angeles	20-Aug
WNV	Culex tarsalis	16-Aug	GRLA	1724	Encino	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1725	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1726	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1727	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1728	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1729	Northridge	Los Angeles	20-Aug

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Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex quinquefasciatus	16-Aug	GRLA	1730	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1731	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	1732	Northridge	Los Angeles	20-Aug
WNV	Culex stigmatosoma	16-Aug	GRLA	1733	Northridge	Los Angeles	20-Aug
WNV	Culex quinquefasciatus	19-Aug	GRLA	1741	Mission Hills	Los Angeles	26-Aug
WNV	Culex thriambus	23-Aug	GRLA	1760	Chatsworth	Los Angeles	26-Aug
WNV	Culex thriambus	23-Aug	GRLA	1769	Chatsworth	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	3002	Harbor City	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	3004	Harbor City	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	3005	Harbor City	Los Angeles	26-Aug
WNV	Culex tarsalis	16-Aug	GRLA	3010	Harbor City	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	3014	Harbor City	Los Angeles	26-Aug
WNV	Culex erythrothorax	16-Aug	GRLA	3020	Harbor City	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	16-Aug	GRLA	3032	Harbor City	Los Angeles	26-Aug
WNV	Culex tarsalis	16-Aug	GRLA	3033	Harbor City	Los Angeles	26-Aug
WNV	Culex quinquefasciatus	20-Aug	KERN	321	Wasco	Kern	25-Aug
WNV	Culex quinquefasciatus	20-Aug	KERN	326	Bakersfield	Kern	25-Aug
WNV	Culex quinquefasciatus	16-Aug	NWST	383	Riverside	Riverside	20-Aug
WNV	Culex quinquefasciatus	18-Aug	ORCO	1353	Anaheim	Orange	26-Aug
WNV	Culex tarsalis	25-Aug	RIVR	191	Riverside	Riverside	25-Aug
WNV	Culex tarsalis	19-Aug	SAYO	863	RD 102	Sacramento	23-Aug
WNV	Culex tarsalis	20-Aug	SAYO	902	Jackson/Slough Rd	Sacramento	23-Aug
WNV	Culex tarsalis	18-Aug	SHAS	102		Shasta	20-Aug
WNV	Culex pipiens	18-Aug	SHAS	106	Redding	Shasta	20-Aug
WNV	Culex pipiens	18-Aug	SHAS	107	Redding	Shasta	20-Aug
WNV	Culex tarsalis	18-Aug	SHAS	121	Redding	Shasta	20-Aug
WNV	Culex pipiens	18-Aug	SHAS	129	Redding	Shasta	20-Aug
WNV	Culex pipiens	25-Aug	SHAS	140	Anderson	Shasta	26-Aug

Dead Birds Tested Positive for WNV last week

Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Alameda	Pleasanton	94588	8/12/2004	8/23/2004
Steller's Jay	Alpine	Markleeville	96120	8/5/2004	8/23/2004
European Starling	Amador	Plymouth	95669	8/13/2004	8/23/2004
American Crow	Butte	Chico	95973	8/12/2004	8/23/2004
Western Scrub-Jay	Butte	Chico	95973	8/13/2004	8/23/2004
Yellow-billed Magpie	Butte	Chico	95929	8/11/2004	8/23/2004
American Crow	Butte	Gridley	95948	8/16/2004	8/23/2004
Western Scrub-Jay	Butte	Gridley	95948	8/16/2004	8/23/2004
American Crow	Butte	Oroville	95965	8/13/2004	8/23/2004
American Crow	Butte	Oroville	95965	8/16/2004	8/23/2004
American Crow	Butte	Oroville	95966	8/16/2004	8/23/2004
Western Scrub-Jay	Butte	Oroville	95966	8/16/2004	8/23/2004
Western Scrub-Jay	Butte	Palermo	95968	8/12/2004	8/23/2004
Yellow-billed Magpie	Colusa	Maxwell	95955	8/16/2004	8/23/2004
Yellow-billed Magpie	Colusa	Princeton	95970	8/14/2004	8/23/2004
American Crow	Colusa	Williams	95987	8/11/2004	8/23/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Colusa	Williams	95987-	8/11/2004	8/23/2004
Cooper's Hawk	Contra Costa	Concord	94521	8/12/2004	8/23/2004
Cooper's Hawk	Contra Costa	Pleasant Hill	94523	8/10/2004	8/23/2004
American Crow	El Dorado	Lotus	95651	8/11/2004	8/23/2004
Mourning Dove	El Dorado	Pollock Pines	95726	8/13/2004	8/23/2004
Common Raven	El Dorado	South Lake Tahoe	96150	8/13/2004	8/23/2004
Steller's Jay	El Dorado	South Lake Tahoe	96150	8/9/2004	8/23/2004
Steller's Jay	El Dorado	South Lake Tahoe	96150	8/11/2004	8/23/2004
American Crow	Fresno	Clovis	93611	8/13/2004	8/23/2004
Western Scrub-Jay	Fresno	Clovis	93611	8/9/2004	8/23/2004
Western Scrub-Jay	Fresno	Clovis	93611	8/11/2004	8/23/2004
Western Scrub-Jay	Fresno	Clovis	93611	8/11/2004	8/23/2004
Western Scrub-Jay	Fresno	Clovis	93611	8/16/2004	8/23/2004
Western Scrub-Jay	Fresno	Clovis	93612	8/11/2004	8/23/2004
American Crow	Fresno	Fresno	93740	8/11/2004	8/23/2004
Western Scrub-Jay	Fresno	Fresno	93704	8/10/2004	8/23/2004
Western Scrub-Jay	Fresno	Fresno	93727	8/11/2004	8/23/2004
Western Scrub-Jay	Fresno	Sanger	93657	8/13/2004	8/23/2004
Yellow-billed Magpie	Glenn	Artois	95913	8/9/2004	8/23/2004
Yellow-billed Magpie	Glenn	Artois	95913	8/11/2004	8/23/2004
Yellow-billed Magpie	Glenn	Artois	95913	8/16/2004	8/23/2004
Yellow-billed Magpie	Glenn	Artois	95913	8/16/2004	8/23/2004
Yellow-billed Magpie	Glenn	Artois	95913-	8/11/2004	8/23/2004
Western Scrub-Jay	Glenn	Elk Creek	95939	8/11/2004	8/23/2004
Western Scrub-Jay	Glenn	Orland	95963	8/10/2004	8/23/2004
Western Scrub-Jay	Glenn	Orland	95963	8/13/2004	8/23/2004
American Crow	Glenn	Willows	95988	8/11/2004	8/23/2004
American Crow	Glenn	Willows	95988	8/13/2004	8/23/2004
American Crow	Glenn	Willows	95988	8/13/2004	8/23/2004
American Crow	Glenn	Willows	95988	8/16/2004	8/23/2004
Yellow-billed Magpie	Glenn	Willows	95988	8/13/2004	8/23/2004
Yellow-billed Magpie	Glenn	Willows	95988	8/16/2004	8/23/2004
American Crow	Kern	Bakersfield	93312	8/11/2004	8/23/2004
Western Scrub-Jay	Kern	Bakersfield	93308	8/16/2004	8/23/2004
Brewer's Blackbird	Kern	Mojave	93501	8/12/2004	8/23/2004
House Sparrow	Kern	Ridgecrest	93555	8/9/2004	8/23/2004
Western Scrub-Jay	Kings	Hanford	93230	8/12/2004	8/23/2004
Western Scrub-Jay	Lake	Clearlake Oaks	95423	8/11/2004	8/23/2004
American Crow	Lake	Lakeport	95453	8/12/2004	8/23/2004
American Crow	Lake	Lakeport	95453	8/12/2004	8/23/2004
Western Scrub-Jay	Lake	Middletown	95461	8/10/2004	8/23/2004
European Starling	Lassen	Standish	96128	8/8/2004	8/23/2004
American Crow	Los Angeles	Carson	90745	8/16/2004	8/23/2004
American Crow	Los Angeles	Culver City	90232	8/12/2004	8/23/2004
American Crow	Los Angeles	Encino	91316	8/11/2004	8/23/2004
American Crow	Los Angeles	Encino	91316	8/12/2004	8/23/2004
House Finch	Los Angeles	Encino	91316	8/10/2004	8/23/2004
American Crow	Los Angeles	La Crescenta	91214	8/13/2004	8/23/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
American Crow	Los Angeles	Lomita	90717	8/16/2004	8/23/2004
American Crow	Los Angeles	Lomita	90717	8/18/2004	8/23/2004
American Crow	Los Angeles	Long Beach	90803	8/17/2004	8/23/2004
American Crow	Los Angeles	Los Angeles	90016	8/18/2004	8/23/2004
American Crow	Los Angeles	Los Angeles	90018	8/18/2004	8/23/2004
American Crow	Los Angeles	Los Angeles	90034	8/12/2004	8/23/2004
American Crow	Los Angeles	Los Angeles	90036	8/16/2004	8/23/2004
American Crow	Los Angeles	Los Angeles	90049	8/12/2004	8/23/2004
American Crow	Los Angeles	Los Angeles	90068	8/12/2004	8/23/2004
American Crow	Los Angeles	Reseda	91335	8/11/2004	8/23/2004
American Crow	Los Angeles	Reseda	91335	8/11/2004	8/23/2004
American Crow	Los Angeles	San Pedro	90731	8/12/2004	8/23/2004
American Crow	Los Angeles	Sherman Oaks	91403	8/17/2004	8/23/2004
American Crow	Los Angeles	Sherman Oaks	91411	8/6/2004	8/23/2004
Common Raven	Los Angeles	West Hollywood	90069	8/12/2004	8/23/2004
American Crow	Los Angeles	Wilmington	90744	8/12/2004	8/23/2004
American Crow	Los Angeles	Woodland Hills	91371	8/12/2004	8/23/2004
Pine Siskin	Marin	Tomales	94971	8/10/2004	8/23/2004
Pine Siskin	Marin	Tomales	94971	8/10/2004	8/23/2004
Pine Siskin	Marin	Tomales	94971	8/10/2004	8/23/2004
Pine Siskin	Marin	Tomales	94971	8/10/2004	8/23/2004
Steller's Jay	Mendocino	Willits	95490	8/11/2004	8/23/2004
European Starling	Modoc	Fort Bidwell	96112	8/16/2004	8/23/2004
California Towhee	Monterey	Marina	93933	8/12/2004	8/23/2004
Barn Owl	Monterey	Salinas	93901	8/12/2004	8/23/2004
Steller's Jay	Nevada	Truckee	96161	8/12/2004	8/23/2004
American Crow	Orange	Cypress	90630	8/6/2004	8/23/2004
American Crow	Orange	Garden Grove	92841	8/5/2004	8/23/2004
American Crow	Orange	Garden Grove	92844	8/11/2004	8/23/2004
House Finch	Orange	Garden Grove	92841	8/10/2004	8/23/2004
House Finch	Orange	Garden Grove	92845	8/11/2004	8/23/2004
House Finch	Orange	Laguna Woods	92637	8/10/2004	8/23/2004
American Crow	Orange	Los Alamitos	90720	8/6/2004	8/23/2004
American Crow	Orange	Orange	92866	8/6/2004	8/23/2004
Western Scrub-Jay	Orange	Orange	92866	8/7/2004	8/23/2004
American Crow	Orange	Seal Beach	90740	7/29/2004	8/23/2004
American Crow	Orange	Seal Beach	90740	7/31/2004	8/23/2004
Great Blue Heron	Orange	Seal Beach	90740	8/6/2004	8/23/2004
American Kestrel	Placer	Granite Bay	95746	8/11/2004	8/23/2004
American Crow	Placer	Roseville	95678	8/11/2004	8/23/2004
House Sparrow	Plumas	Chester	96020	8/11/2004	8/23/2004
Lesser Goldfinch	Plumas	Chester	96020	8/11/2004	8/23/2004
Lesser Goldfinch	Plumas	Chester	96020	8/11/2004	8/23/2004
Steller's Jay	Plumas	Greenville	95947	8/12/2004	8/23/2004
Red-breasted Sapsucker	Plumas	Portola	96122	8/10/2004	8/23/2004
American Crow	Riverside	Murrieta	92562	8/2/2004	8/23/2004
Western Screech-Owl	Sacramento	Carmichael	95608	8/13/2004	8/23/2004

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Western Scrub-Jay	Sacramento	Elk Grove	95624	8/16/2004	8/23/2004
Yellow-billed Magpie	Sacramento	Elk Grove	95757	8/13/2004	8/23/2004
Western Scrub-Jay	Sacramento	Galt	95632	8/11/2004	8/23/2004
American Crow	Sacramento	Sacramento	95826	8/12/2004	8/23/2004
Northern Mockingbird	Sacramento	Sacramento	95815	8/13/2004	8/23/2004
Yellow-billed Magpie	Sacramento	Sacramento	95825	8/11/2004	8/23/2004
Western Scrub-Jay	Sacramento	Wilton	95693	8/11/2004	8/23/2004
Western Scrub-Jay	Sacramento	Wilton	95693	8/16/2004	8/23/2004
Yellow-billed Magpie	Sacramento	Wilton	95693	8/11/2004	8/23/2004
Yellow-billed Magpie	Sacramento	Wilton	95693	8/12/2004	8/23/2004
Yellow-billed Magpie	Sacramento	Wilton	95693	8/12/2004	8/23/2004
American Crow	San Joaquin	Manteca	95336	8/11/2004	8/23/2004
Yellow-billed Magpie	San Joaquin	Manteca	95337	8/10/2004	8/23/2004
Barn Owl	San Joaquin	Stockton	95206	8/11/2004	8/23/2004
Western Scrub-Jay	San Luis Obispo	Arroyo Grande	93420	8/12/2004	8/23/2004
American Robin	San Luis Obispo	San Luis Obispo	93401	8/6/2004	8/23/2004
Sharp-shinned Hawk	Santa Clara	Los Altos	94024	8/16/2004	8/23/2004
Barn Owl	Santa Clara	Morgan Hill	95037	8/11/2004	8/23/2004
Common Raven	Santa Clara	San Jose	95132	8/12/2004	8/23/2004
Red-Tailed Hawk	Santa Clara	San Jose	95120	8/16/2004	8/23/2004
Western Scrub-Jay	Santa Clara	San Jose	95121	8/11/2004	8/23/2004
Western Scrub-Jay	Santa Clara	San Jose	95125	8/12/2004	8/23/2004
Western Scrub-Jay	Santa Clara	San Jose	95135	8/10/2004	8/23/2004
Cooper's Hawk	Santa Clara	Sunnyvale	94087	8/10/2004	8/23/2004
Western Scrub-Jay	Shasta	Anderson	96007	8/5/2004	8/23/2004
Western Scrub-Jay	Shasta	Anderson	96007	8/11/2004	8/23/2004
Western Scrub-Jay	Shasta	Anderson	96007	8/11/2004	8/23/2004
Yellow-billed Magpie	Shasta	Anderson	96007	8/10/2004	8/23/2004
Western Scrub-Jay	Shasta	Manton	96059	8/16/2004	8/23/2004
Western Scrub-Jay	Shasta	Palo Cedro	96073	8/6/2004	8/23/2004
Western Scrub-Jay	Shasta	Palo Cedro	96073	8/9/2004	8/23/2004
Yellow-billed Magpie	Shasta	Palo Cedro	96073	8/9/2004	8/23/2004
American Crow	Shasta	Redding	96001	8/13/2004	8/23/2004
American Crow	Shasta	Redding	96002	8/6/2004	8/23/2004
Green Heron	Shasta	Redding	96003	8/12/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96001	8/6/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96002	8/5/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96002	8/6/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96002	8/10/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96002	8/9/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96002	8/10/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96002	8/10/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96003	8/6/2004	8/23/2004
Western Scrub-Jay	Shasta	Redding	96003	8/12/2004	8/23/2004
Yellow-billed Magpie	Shasta	Redding	96002	8/6/2004	8/23/2004
Yellow-billed Magpie	Shasta	Redding	96003	8/6/2004	8/23/2004
Western Scrub-Jay	Shasta	Shasta Lake City	96019	8/12/2004	8/23/2004
Barn Owl	Siskiyou	McCloud	96057	8/11/2004	8/23/2004

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Species	County	City	Zip Code	Date Collected	Date Tested
Western Scrub-Jay	Siskiyou	Mt. Shasta	96067	8/16/2004	8/23/2004
Western Meadowlark	Siskiyou	Weed	96094	8/12/2004	8/23/2004
Acorn Woodpecker	Siskiyou	Yreka	96097	8/15/2004	8/23/2004
American Crow	Siskiyou	Yreka	96097	8/11/2004	8/23/2004
Western Scrub-Jay	Solano	Dixon	95620	8/10/2004	8/23/2004
Western Scrub-Jay	Solano	Vacaville	95687	8/17/2004	8/23/2004
American Crow	Sonoma	Rohnert Park	94928	8/9/2004	8/23/2004
American Crow	Sonoma	Santa Rosa	95404	8/13/2004	8/23/2004
Western Scrub-Jay	Sonoma	Sebastapol	94572	8/12/2004	8/23/2004
Western Scrub-Jay	Stanislaus	Modesto	95350	8/11/2004	8/23/2004
American Crow	Stanislaus	Patterson	95363	8/12/2004	8/23/2004
Yellow-billed Magpie	Sutter	Pleasant Grove	95668	8/16/2004	8/23/2004
American Crow	Sutter	Rio Oso	95674	8/17/2004	8/23/2004
Western Scrub-Jay	Sutter	Sutter	95982	8/12/2004	8/23/2004
Western Scrub-Jay	Tehama	Corning	96021	8/10/2004	8/23/2004
Western Scrub-Jay	Tehama	Corning	96021	8/12/2004	8/23/2004
Western Scrub-Jay	Tehama	Corning	96021	8/13/2004	8/23/2004
Western Scrub-Jay	Tehama	Corning	96021	8/13/2004	8/23/2004
Yellow-billed Magpie	Tehama	Corning	96021	8/11/2004	8/23/2004
Yellow-billed Magpie	Tehama	Corning	96021	8/16/2004	8/23/2004
Western Scrub-Jay	Tehama	Cottonwood	96022	8/11/2004	8/23/2004
Yellow-billed Magpie	Tehama	Gerber	96035	8/13/2004	8/23/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/11/2004	8/23/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/12/2004	8/23/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/13/2004	8/23/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/16/2004	8/23/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/16/2004	8/23/2004
Yellow-billed Magpie	Tehama	Red Bluff	96080	8/16/2004	8/23/2004
Western Scrub-Jay	Tulare	Farmersville	93223	8/11/2004	8/23/2004
Western Scrub-Jay	Tulare	Tulare	93274	8/16/2004	8/23/2004
Acorn Woodpecker	Tuolumne	Groveland	95321	8/13/2004	8/23/2004
House Finch	Tuolumne	Sonora	95370	8/11/2004	8/23/2004
Western Bluebird	Tuolumne	Sonora	95370	8/16/2004	8/23/2004
Black-headed Grosbeak	Tuolumne	Soulsbyville	95372	8/16/2004	8/23/2004
American Crow	Yolo	Davis	95616	8/16/2004	8/23/2004
Western Scrub-Jay	Yolo	Davis	95616	8/12/2004	8/23/2004
European Starling	Yolo	Winters	95694	8/10/2004	8/23/2004
Yellow-billed Magpie	Yuba	Marysville	95901	8/13/2004	8/23/2004

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National Comments:

As of August 31, 2004, West Nile Virus (WNV) activity has been detected in 47 states, Puerto Rico, and New York City. Rhode Island reported its first WNV activity this week. Over 1,000 human WNV cases have been reported from 35 states and New York City. The majority of the cases are have been reported from Arizona, California, and Colorado. Of the 1,025 WNV cases with data available, the median age is 51 years (range: 1 month – 99 years) and 57% are male. Thirty-seven percent of the cases were neuroinvasive. There have been 28 WNV-related fatalities nationwide in 2004. In addition, 85 asymptomatic blood donors who tested positive for West Nile virus have been reported nationwide. Eighteen of these blood donors later developed symptoms.

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].