

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Weekly Summary

A tribute to William C. (Bill) Reeves: 1916-2004

By Bruce Eldridge, U. C. Davis

When Bill Reeves died on September 19, 2004 the world lost probably the finest medical entomologist this country has produced. His original discoveries involving the ecology of viruses transmitted to humans and other vertebrate animals by mosquitoes form much of the foundation of the modern approach to the prevention and control of the diseases caused by these viruses. His death was a particularly hard blow to those of us involved in surveillance activities in California for arboviruses because Bill, more than any other person, was responsible for the inception, development, and implementation of the comprehensive surveillance system in place today. It is indeed fortunate that this system was established and well-tested long before the current outbreak of West Nile virus diseases in California. It had grown out of research conducted by Bill and his colleagues on the transmission of western equine in the western USA beginning in the late 1930s. One of Bill's favorite photographs was him bleeding a sentinel chicken in the 1940's as an example of his idea to detect mosquito-borne encephalitis before the onset of horse and human cases. After the widespread epidemic of WEE and SLE in the central valley of California in 1952, the current surveillance system was put in place as a joint venture of local mosquito control districts, the California Department of Health Services, and the University of California. Over the years the testing procedures used were periodically upgraded based on research conducted under Bill's direction.

Bill was actively involved in the control and prevention of arbovirus diseases in California right to the end of his life. Of course, all of us will miss keenly Bill's scientific contributions and advice. But we will also miss his positive and helpful attitude, his support of younger scientists, and his ever present sense of humor. Rest well, Bill, and thanks for a job well done.

California Weekly Summary Comments:

Humans:

This week, California reported 42 new humans infected with West Nile virus (WNV). As of October 1, 2004, a total of **654** WNV infections have been reported from the following local health jurisdictions: San Bernardino (187), Los Angeles (263), Riverside (96), Orange (42), Kern (26), Fresno (11), Imperial (1), Lassen (1), Glenn (1), Ventura (2), Butte (5), Lassen (1), Merced (1), San Diego (1), San Joaquin (1), Santa Clara (1), San Luis Obispo (1), Shasta (3), Tehama (8), Tulare (1) and Yolo (1) counties. Sixty-nine of the 643 WNV infections were initially detected in asymptomatic individuals through screening done at blood banks – nine of these individuals later became symptomatic. Of the 594 WNV cases with symptoms, 221 are classified as West Nile fever cases, 191 are classified as West Nile neuroinvasive disease, and 182 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 7-89 years). Median age for West Nile neuroinvasive disease cases = 58 years (range: 4-91 years). Sixty-two per cent (367/594) of the cases are male. There have been 18 fatalities to date in California in San Bernardino (5), Los Angeles (9), Riverside (2) Orange (1) and Tehama (1) counties. The median age of the 17 fatalities is 74 years (range: 57-91 years).

Equine:

The California Department of Food & Agriculture confirmed 33 WNV equine cases from Inyo (2), Kern (1), Los Angeles (1), Mendocino (2), Placer (4), Riverside (4), Sacramento (7), San Bernardino (1), San Joaquin (2), Shasta (2), Stanislaus (2), Sutter (1), Tehama (1), and Tulare (3) counties. Currently, the YTD total stands at 419 positive cases. A total of 177 horses have died or euthanized from the WNV infection.

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Dead Birds:

The hotline received 2,464 reported dead birds last week (YTD = 85,189). The UC Davis Center for Vectorborne Diseases (CVEC) reported 98 out of 142 dead birds submitted last week have tested positive for WNV by RT-PCR: American crows (18), American kestrels (2), American robins (2), an Anna's hummingbird (1), a barn owl (1), common ravens (2), a dark-eyed junco (1), a greater white-fronted goose (1), a lesser goldfinch (1), a mourning dove (1), a northern waterthrush (1), red-tailed hawks (4), a spotted towhee (1), Steller's jays (7), a western bluebird (1), western scrub-jays (30), a western tanager (1), a white-tailed kite (1), and yellow-billed magpies (22). The greater white-fronted goose and northern waterthrush were the first of their species to test positive for WNV this year. The YTD total stands at 2,567 positive bird carcasses.

The positive birds were collected within the 28 counties of Amador (1), Fresno (3), Kern (4), Kings (1), Lake (3), Lassen (1), Los Angeles (5), Mendocino (1), Merced (3), Monterey (3), Nevada (1), Placer (9), Sacramento (24), San Francisco (1), San Joaquin (2), San Luis Obispo (1), Santa Clara (1), Santa Cruz (3), Shasta (1), Siskiyou (2), Solano (3), Sonoma (2), Stanislaus (9), Sutter (2), Tulare (5), Ventura (2), Yolo (4), and Yuba (1).

A cumulative total of 140 dead birds were tested from 33 of the 56 WNV positive counties. Thus 70.0% (98/140) of the birds tested from these counties were WNV positive. No birds were tested this week that came from the two remaining negative counties in California: Del Norte and San Benito.

News Flash:

CVEC reported Wednesday that 183 of 234 dead birds have tested positive for WNV. The positive birds were collected within the 44 counties of Alameda (2), Amador (3), Butte (1), Contra Costa (1), El Dorado (1), Fresno (11), Humboldt (4), Inyo (3), Kern (12), Kings (2), Lake (5), Lassen (1), Los Angeles (9), Madera (1), Marin (1), Mariposa (1), Mendocino (3), Merced (3), Mono (2), Nevada (5), Orange (5), Placer (6), Riverside (1), Sacramento (19), San Benito (3), San Bernardino (1), San Diego (6), San Francisco (1), San Joaquin (13), San Luis Obispo (2), San Mateo (1), Santa Clara (4), Santa Cruz (2), Shasta (1), Siskiyou (4), Solano (3), Sonoma (8), Stanislaus (9), Sutter (3), Trinity (2), Tulare (7), Ventura (3), Yolo (7), and Yuba (1). **This represents the first indication of WNV activity in San Benito County.**

Mosquito Pools:

CVEC reported 65 positive pools from Fresno (3), Los Angeles (25), Kern (18), Merced (1), Orange (8), Riverside (1), San Bernardino (6), and Sacramento (3) counties. This is the first detection of positive mosquito activity in Merced County. To date, 19 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 1036 positive pools.

Chickens:

Fifty-nine WNV chicken seroconversions were detected in 16 flocks from Kern (10), Los Angeles (25), Riverside (13), Tehama (3) and Tulare (8) counties. This was the first seroconversion from Tulare County. Of the 59 seroconversions, 18 came from 9 new flocks in Kern (3), Los Angeles (11), Riverside (3), and Tulare (1) counties. Currently, 16 counties: Butte, Glenn, Imperial, Kern, Los Angeles, Orange, Placer, Riverside, San Bernardino, San Joaquin, Shasta, Sutter, Tehama, Tulare, Ventura, and Yolo have positive WNV seroconversions. The current YTD total stands at 546 WNV seroconversions.

****Note: Bulletins 26 and 28 will go out on the Monday following their normal date.**

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.

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 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	50	0	42	0	0	0	0	0	0
	YTD	1392	0	654	0	0	0	0	0	0
Suspect Equine Cases	Week	n/a	0	33	0	0	0	0	0	0
	YTD	874	0	419	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	142	98
YTD	4,243	2,567

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
Chicken sera	Week	879*	59	0	0	0
	YTD	25,149	546	0	0	0
Mosquito pools	Week	517	65	0	0	0
	YTD	11,307	1036	0	0	0

*This total has been adjusted to include local agency submission

Human Positives Reported:

POSITIVES

Virus	Date of Onset	Status	Diagnosis	County	Imported/Local	From
WNV	Unknown	Probable	West Nile Fever	Glenn	Local	
WNV	Unknown	Probable	Unknown	Tehama	Local	
WNV	Unknown	Probable	Unknown	Butte	Local	
WNV	Unknown	Probable	Unknown	Fresno	Local	
WNV	Unknown	Probable	Unknown	Riverside	Local	
WNV	9/14/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	9/19/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	West Nile Fever	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	9/03/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Orange	Local	
WNV	9/07/04	Probable	West Nile Fever	Orange	Local	
WNV	9/03/04	Probable	West Nile Neuroinvasive Disease	Orange	Local	
WNV	Unknown	Probable	West Nile Fever	Ventura	Local	
WNV	8/29/04	Probable	West Nile Neuroinvasive Disease	Kern	Local	
WNV	9/11/04	Probable	West Nile Fever	Kern	Local	
WNV	Unknown	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	6/27/04	Probable	West Nile Neuroinvasive Disease	San Bernardino	Local	
WNV	Unknown	Probable	West Nile Fever	San Bernardino	Local	
WNV	Unknown	Probable	Unknown	Tehama	Local	
WNV	Unknown	Probable	Unknown	Tehama	Local	
WNV	Unknown	Probable	Unknown	Riverside	Local	
WNV	Unknown	Probable	Unknown	Kern	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	9/13/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	9/22/04	Probable	West Nile Neuroinvasive Disease	Los Angeles	Local	
WNV	9/22/04	Probable	West Nile Fever	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	Unknown	Los Angeles	Local	
WNV	Unknown	Probable	West Nile Fever	Orange	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	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	Orange	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Orange	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	San Joaquin	Local	
WNV	Not Applicable	Probable	Asymptomatic – Blood Bank	Fresno	Local	

*Indicates fatality

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Chicken Seroconversions Reported by DHS:

	Virus	County	State	Acode	City	Location
****	WNV	Kern	CA	DLNO0060	Delano	Delano
	Bands:	1627, 1632, 1633				Probable Seroconversion Date: 26-August-04
	WNV	Kern	CA	DLNO0060	Delano	Delano
	Bands:	1626, 1630, 1631, 1634, 1635				Probable Seroconversion Date: 9-September-04
	WNV	Kern	CA	DLNO0060	Delano	Delano
	Bands:	1628, 1629				Probable Seroconversion Date: 23-September-04
****	WNV	Los Angeles	CA	GRLA1003	Encino	Encino
	Bands:	1872, 1879				Probable Seroconversion Date: 25-August-04
	WNV	Los Angeles	CA	GRLA1003	Encino	Encino
	Bands:	1874				Probable Seroconversion Date: 8-September-04
	WNV	Los Angeles	CA	GRLA1003	Encino	Encino
	Bands:	1871, 1876, 1877, 1878				Probable Seroconversion Date: 22-September-04
****	WNV	Los Angeles	CA	GRLA1005	Whittier	Whittier-Narrows
	Band:	1891, 3922				Probable Seroconversion Date: 23-August-04
	WNV	Los Angeles	CA	GRLA1005	Whittier	Whittier-Narrows
	Band:	1900, 3924				Probable Seroconversion Date: 7-September-04
****	WNV	Los Angeles	CA	GRLA4012	Rowland Heights	Rowland Heights
	Band:	3902, 3903, 3906, 3909				Probable Seroconversion Date: 9-August-04
	WNV	Los Angeles	CA	GRLA4012	Rowland Heights	Rowland Heights
	Band:	3901, 3905, 3908, 7776				Probable Seroconversion Date: 23-August-04
****	WNV	Los Angeles	CA	LACW1008	Inglewood	Hollywood Park
	Band:	2170, 2172				Probable Seroconversion Date: 9-September-04
****	WNV	Los Angeles	CA	LACW1009	Los Angeles	Rosedale Cemetery
	Band:	2175				Probable Seroconversion Date: 9-September-04
	WNV	Los Angeles	CA	LONG0002	Long Beach	Harbor Terminal
	Band:	1218, 1219				Probable Seroconversion Date: 20-September-04
	WNV	Los Angeles	CA	LONG0003	Long Beach	Del Amo Blvd Horse Stable
	Band:	1221				Probable Seroconversion Date: 20-September-04
****	WNV	Riverside	CA	COAV0210	Cathedral City	Vanden
	Band:	1337, 1338				Probable Seroconversion Date: 23-August-04
	WNV	Riverside	CA	NWST0004	Rancho Jurupa	Rancho Jurupa Park
	Band:	4136				Probable Seroconversion Date: 22-September-04
	WNV	Riverside	CA	NWST9226	Riverside	Mockingbird Canyon
	Band:	2657				Probable Seroconversion Date: 22-September-04
	WNV	Riverside	CA	NWST9401	Corona	Corona Airport
	Band:	4139				Probable Seroconversion Date: 22-September-04
****	WNV	Riverside	CA	RIVR0008	Murrieta	Auld Ranch Road
	Band:	2825				Probable Seroconversion Date: 25-August-04
	WNV	Riverside	CA	RIVR0008	Murrieta	Auld Ranch Road
	Band:	2823, 2829				Probable Seroconversion Date: 8-September-04
	WNV	Riverside	CA	RIVR0008	Murrieta	Auld Ranch Road
	Band:	2820, 2821, 2827, 2828, 2830				Probable Seroconversion Date: 22-September-04
	WNV	Tehama	CA	TEHA0001	Red Bluff	Red Bluff Shop
	Band:	3603, 3606				Probable Seroconversion Date: 15-September-04

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Virus	County	State	Acode	City	Location
WNV	Tehama	CA	TEHA0001	Corning	Woodson Bridge
					Probable Seroconversion Date: 15-September-04
Band: 3612					
**** WNV	Tulare	CA	TLRE0012	Tulare	TMAD
					Probable Seroconversion Date: 25-August-04
Band: 3632					
WNV	Tulare	CA	TLRE0012	Tulare	TMAD
					Probable Seroconversion Date: 8-September-04
Band: 3639					
WNV	Tulare	CA	TLRE0012	Tulare	TMAD
					Probable Seroconversion Date: 22-September-04
Band: 3633, 3634, 3635, 3637, 3638, 3640					

****Indicates a new flock

Virus Isolations From Mosquito Pools:

Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex quinquefasciatus	21-Sept	CNSL	103	Sanger	Fresno	22-Sept
WNV	Culex quinquefasciatus	21-Sept	CNSL	104	Fresno Air Terminal	Fresno	22-Sept
WNV	Culex quinquefasciatus	21-Sept	CNSL	106	Fresno	Fresno	22-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	1847	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	1848	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	1849	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	1850	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	1851	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	1852	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	19-Sept	GRLA	1868	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	19-Sept	GRLA	1869	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	19-Sept	GRLA	1870	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	19-Sept	GRLA	1871	Encino	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	20-Sept	GRLA	1876	Los Angeles	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	13-Sept	GRLA	3188	Rowland Heights	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	13-Sept	GRLA	3190	Harbor City	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	13-Sept	GRLA	3204	Whittier	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	3214	Lakewood	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	3217	Lakewood	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	3218	Lakewood	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	15-Sept	GRLA	3220	Long Beach	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	16-Sept	GRLA	3225	Montebello	Los Angeles	23-Sept
WNV	Culex quinquefasciatus	16-Sept	KERN	419	Wasco	Kern	22-Sept
WNV	Culex quinquefasciatus	16-Sept	KERN	420	Shafter	Kern	22-Sept
WNV	Culex quinquefasciatus	16-Sept	KERN	421	Shafter	Kern	22-Sept
WNV	Culex quinquefasciatus	17-Sept	KERN	423	Bakersfield	Kern	22-Sept
WNV	Culex quinquefasciatus	17-Sept	KERN	425	Bakersfield	Kern	22-Sept
WNV	Culex quinquefasciatus	17-Sept	KERN	426	Bakersfield	Kern	22-Sept
WNV	Culex quinquefasciatus	17-Sept	KERN	427	Bakersfield	Kern	22-Sept
WNV	Culex tarsalis	14-Sept	KERN	5641	Arvin	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5648	Arvin	Kern	20-Sept
WNV	Culex tarsalis	14-Sept	KERN	5667	Arvin	Kern	20-Sept

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex tarsalis	14-Sept	KERN	5668	Arvin	Kern	20-Sept
WNV	Culex tarsalis	14-Sept	KERN	5669	Arvin	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5707	Bakersfield	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5708	Bakersfield	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5709	Bakersfield	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5710	Bakersfield	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5716	Bakersfield	Kern	20-Sept
WNV	Culex quinquefasciatus	14-Sept	KERN	5717	Bakersfield	Kern	20-Sept
WNV	Culex quinquefasciatus	13-Sept	LACW	168		Los Angeles	21-Sept
WNV	Culex quinquefasciatus	13-Sept	LACW	169	Los Angeles	Los Angeles	21-Sept
WNV	Culex quinquefasciatus	13-Sept	LACW	170		Los Angeles	21-Sept
WNV	Culex quinquefasciatus	13-Sept	LACW	173	Inglewood	Los Angeles	21-Sept
WNV	Culex quinquefasciatus	8-Sept	LONG	347	Long Beach	Los Angeles	17-Sept
WNV	Culex tarsalis	15-Sept	LONG	367	Long Beach	Los Angeles	17-Sept
WNV	Culex tarsalis	16-Sept	MERC	113	Los Banos	Merced	21-Sept
WNV	Culex quinquefasciatus	14-Sept	ORCO	1517	Garden Grove	Orange	22-Sept
WNV	Culex quinquefasciatus	14-Sept	ORCO	1521	Anaheim	Orange	22-Sept
WNV	Culex quinquefasciatus	14-Sept	ORCO	1524	Santa Ana	Orange	22-Sept
WNV	Culex quinquefasciatus	14-Sept	ORCO	1525	Fullerton	Orange	22-Sept
WNV	Culex quinquefasciatus	15-Sept	ORCO	1528	La Habra	Orange	22-Sept
WNV	Culex quinquefasciatus	15-Sept	ORCO	1529	Cypress	Orange	22-Sept
WNV	Culex quinquefasciatus	15-Sept	ORCO	1530	Orange	Orange	22-Sept
WNV	Culex quinquefasciatus	15-Sept	ORCO	1531	Anaheim	Orange	22-Sept
WNV	Culex stigmatosoma	21-Sept	RIVR	241	Nuevo	Riverside	23-Sept
WNV	Culex tarsalis	29-July	SANB	179	Fontana	San Bernardino	21-Sept
WNV	Culex quinquefasciatus	29-July	SANB	180	Fontana	San Bernardino	21-Sept
WNV	Culex quinquefasciatus	12-Aug	SANB	183	Upland	San Bernardino	21-Sept
WNV	Culex tarsalis	18-Aug	SANB	198	Fontana	San Bernardino	21-Sept
WNV	Culex quinquefasciatus	19-Aug	SANB	201	Redlands	San Bernardino	21-Sept
WNV	Culex tarsalis	29-Aug	SANB	222	Fontana	San Bernardino	21-Sept
WNV	Culex pipiens	17-Sept	SAYO	1057		Sacramento	20-Sept
WNV	Culex tarsalis	17-Sept	SAYO	1082		Sacramento	20-Sept
WNV	Culex tarsalis	17-Sept	SAYO	1085		Sacramento	20-Sept

Dead Birds Tested Positive for WNV last week

Species	County	City	Zip Code	Date Collected	Date Tested
Western Scrub-Jay	Amador	Drytown	95699	9/14/2004	9/20/2004
Western Scrub-Jay	Fresno	Reedley	93654	9/15/2004	9/20/2004
Steller's Jay	Fresno	Sanger	93657	9/13/2004	9/20/2004
Western Scrub-Jay	Fresno	Sanger	93657	9/13/2004	9/20/2004
Western Scrub-Jay	Kern	Bakersfield	93306	8/24/2004	9/20/2004
American Crow	Kern	Bakersfield	93306	9/14/2004	9/20/2004
American Crow	Kern	Delano	93215	9/13/2004	9/20/2004
Northern Waterthrush	Kern	Edwards	93524	9/14/2004	9/20/2004
Western Scrub-Jay	Kings	Hanford	93230	9/14/2004	9/20/2004

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Species	County	City	Zip Code	Date Collected	Date Tested
Western Scrub-Jay	Lake	Hidden Valley Lake	95467	9/13/2004	9/20/2004
American Crow	Lake	Kelseyville	95451	9/15/2004	9/20/2004
American Crow	Lake	Lakeport	95453	9/15/2004	9/20/2004
Lesser Goldfinch	Lassen	Susanville	96130	9/15/2004	9/20/2004
American Crow	Los Angeles	Agoura Hills	91301	9/7/2004	9/20/2004
Western Scrub-Jay	Los Angeles	Beverly Hills	90210	9/9/2004	9/20/2004
American Crow	Los Angeles	Encino	91436	9/7/2004	9/20/2004
American Crow	Los Angeles	Sherman Oaks	91423	9/8/2004	9/20/2004
Western Scrub-Jay	Los Angeles	Westlake Village	91361	9/10/2004	9/20/2004
American Crow	Mendocino	Ukiah	95482	9/13/2004	9/20/2004
Western Scrub-Jay	Merced	Delhi	95315	9/13/2004	9/20/2004
Steller's Jay	Merced	Merced	95340	9/14/2004	9/20/2004
Western Scrub-Jay	Merced	Winton	95388	9/13/2004	9/20/2004
Western Bluebird	Monterey	Monterey	93940	9/13/2004	9/20/2004
American Kestrel	Monterey	Pinnacles National Monument	95043	9/13/2004	9/20/2004
Western Scrub-Jay	Monterey	Salinas	93907	9/14/2004	9/20/2004
Steller's Jay	Nevada	Penn Valley	95946	9/14/2004	9/20/2004
Western Scrub-Jay	Placer	Auburn	95603	9/9/2004	9/20/2004
Steller's Jay	Placer	Auburn	95603	9/13/2004	9/20/2004
American Crow	Placer	Lincoln	95648	9/10/2004	9/20/2004
Western Scrub-Jay	Placer	Lincoln	95648	9/13/2004	9/20/2004
Yellow-billed Magpie	Placer	Lincoln	95648	9/14/2004	9/20/2004
Yellow-billed Magpie	Placer	Newcastle	95658	9/14/2004	9/20/2004
Yellow-billed Magpie	Placer	Roseville	95678	9/10/2004	9/20/2004
Yellow-billed Magpie	Placer	Roseville	95678	9/14/2004	9/20/2004
Barn Owl	Placer	Roseville	95678	9/15/2004	9/20/2004
American Crow	Sacramento	Citrus Heights	95610	9/13/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Citrus Heights	95610	9/13/2004	9/20/2004
Western Scrub-Jay	Sacramento	Elk Grove	95624	9/7/2004	9/20/2004
Western Scrub-Jay	Sacramento	Elk Grove	95624	9/10/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Elk Grove	95757	9/13/2004	9/20/2004
Western Scrub-Jay	Sacramento	Elk Grove	95624	9/13/2004	9/20/2004
American Kestrel	Sacramento	Elk Grove	95758	9/13/2004	9/20/2004
Western Scrub-Jay	Sacramento	Elk Grove	95758	9/14/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Elverta	95626	9/13/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Rancho Cordova	95670	9/9/2004	9/20/2004
Western Scrub-Jay	Sacramento	Rancho Cordova	95670	9/13/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Rancho Cordova	95670	9/14/2004	9/20/2004
Red-tailed hawk	Sacramento	Rancho Cordova	95670	9/14/2004	9/20/04
Yellow-billed Magpie	Sacramento	Rio Linda	95673	9/15/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Sacramento	95831	9/9/2004	9/20/2004
Western Scrub-Jay	Sacramento	Sacramento	95829	9/10/2004	9/20/2004
American Crow	Sacramento	Sacramento	95842	9/13/2004	9/20/2004
American Crow	Sacramento	Sacramento	95822	9/13/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Sacramento	95827	9/14/2004	9/20/2004
Yellow-billed Magpie	Sacramento	Sacramento	95842	9/13/2004	9/20/2004

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

Species	County	City	Zip Code	Date Collected	Date Tested
Western Scrub-Jay	Sacramento	Sacramento	95818	9/14/2004	9/20/2004
Steller's Jay	Sacramento	Sacramento	95828	9/15/2004	9/20/2004
Western Scrub-Jay	Sacramento	Sacramento	95823	9/15/2004	9/20/2004
Western Scrub-Jay	Sacramento	Sloughhouse	95683	9/10/2004	9/20/2004
American Robin	San Francisco	San Francisco	94127	9/7/2004	9/20/2004
Red-tailed Hawk	San Joaquin	Lockeford	95237	9/13/2004	9/20/2004
Western Scrub-Jay	San Joaquin	Woodbridge	95258	9/13/2004	9/20/2004
Western Scrub-Jay	San Luis Obispo	Paso Robles	93446	9/13/2004	9/20/2004
Western Scrub-Jay	Santa Clara	San Jose	95135	9/13/2004	9/20/2004
Mourning Dove	Santa Cruz	Aptos	95003	9/14/2004	9/20/2004
Dark-eyed Junco	Santa Cruz	Santa Cruz	95060	9/10/2004	9/20/2004
Anna's Hummingbird	Santa Cruz	Watsonville	95076	9/13/2004	9/20/2004
Western Scrub-Jay	Shasta	Anderson	96007	8/24/2004	9/20/2004
Spotted Towhee	Siskiyou	Weed	96094	9/13/2004	9/20/2004
American Robin	Siskiyou	Yreka	96097	9/13/2004	9/20/2004
Yellow-billed Magpie	Solano	Vacaville	95687	9/14/2004	9/20/2004
Yellow-billed Magpie	Solano	Vacaville	95688	9/14/2004	9/20/2004
American Crow	Solano	Vacaville	95687	9/15/2004	9/20/2004
Western Tanager	Sonoma	Penngrove	94951	9/14/2004	9/20/2004
Domestic Goose	Sonoma	Sebastopol	95472	9/7/2004	9/20/2004
Western Scrub-Jay	Stanislaus	Modesto	95356	9/1/2004	9/20/2004
White-tailed Kite	Stanislaus	Modesto	95357	9/13/2004	9/20/2004
American Crow	Stanislaus	Modesto	95350	9/14/2004	9/20/2004
Yellow-billed Magpie	Stanislaus	Modesto	95355	9/14/2004	9/20/2004
Yellow-billed Magpie	Stanislaus	Modesto	95355	9/14/2004	9/20/2004
Common Raven	Stanislaus	Modesto	95356	9/14/2004	9/20/2004
Yellow-billed Magpie	Stanislaus	Modesto	95358	9/14/2004	9/20/2004
Yellow-billed Magpie	Stanislaus	Salida	95368	9/10/2004	9/20/2004
Yellow-billed Magpie	Stanislaus	Turlock	95382	9/14/2004	9/20/2004
American Crow	Sutter	Yuba City	95993	9/13/2004	9/20/2004
American Crow	Sutter	Yuba City	95993	9/15/2004	9/20/2004
Steller's Jay	Tulare	Cutler	93615	9/10/2004	9/20/2004
American Crow	Tulare	Tulare	93274	9/9/2004	9/20/2004
Western Scrub-Jay	Tulare	Visalia	93277	9/13/2004	9/20/2004
Steller's Jay	Tulare	Visalia	93277	9/15/2004	9/20/2004
Common Raven	Tulare	Visalia	93291	9/15/2004	9/20/2004
American Crow	Ventura	Simi Valley	93063	9/9/2004	9/20/2004
Western Scrub-Jay	Ventura	Ventura	93003	9/13/2004	9/20/2004
Red-tailed hawk	Yolo	Clarksville	95616	9/14/2004	9/20/1904
Western Scrub-Jay	Yolo	Davis	95616	9/13/2004	9/20/2004
Yellow-billed Magpie	Yolo	Woodland	95695	9/13/2004	9/20/2004
Red-tailed Hawk	Yolo	Woodland	95695	9/12/2004	9/20/2004
Yellow-billed Magpie	Yuba	Marysville	95901	9/12/2004	9/20/2004

California Arbovirus Surveillance Bulletin # 24

Week 39 Friday, October 1, 2004

National Comments:

As of September 28, 2004, West Nile Virus (WNV) activity has been detected in 47 states, the District of Columbia, Puerto Rico, and New York City. The District of Columbia reported its first human WNV case this week. Over 1700 human WNV cases have been reported in 39 states, DC and New York City. At this time in 2003, 5861 cases had been reported from 42 states. Of the 1,752 WNV cases where data is available, the median age is 51 years (range: 1 month – 99 years) and 58% are male. Thirty-six percent of the cases were neuroinvasive, compared with 29% at this time in 2003. There have been 56 WNV-related fatalities nationwide in 2004. The median age of the 55 fatalities where data were available was 75 years (range: 43-95 years).

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].