

California Arbovirus Surveillance Bulletin # 23

Week 30 Friday, July 30, 2010

Weekly Summary

WEEKLY COMMENTS



Humans

Two new human cases of West Nile virus (WNV) were reported this week from Fresno County; these are the first cases of WNV reported from Fresno County in 2010. To date this year, six WNV cases have been reported from three counties. Of these, two (33%) developed neuroinvasive disease. The median age of the six individuals is 54 years (range: 27-60 years) and one (17%) is male. No fatalities have been reported. Additionally this year, three asymptomatic WNV infections have been reported from Fresno, Madera, and Tulare counties. At this time last year, one human case had been reported from San Diego County.

Horses

No cases have been reported in 2010. At this time last year, one equine case of WNV had been reported from San Joaquin County.

Dead Birds & Squirrels

Forty-seven recently-infected* WNV positive dead birds were reported this week from the following 13 counties: Fresno (4), Kern (1), Los Angeles (1), Madera (1), Merced (1), Orange (1), Sacramento (17), San Joaquin (11), Santa Clara (1), Shasta (1), Stanislaus (6), Tulare (1), and Yolo (1). This is the first detection of WNV activity in Shasta County this year. An additional 28 birds from 11 counties tested positive for chronic infection with WNV. No positive tree squirrels were reported this week.

In 2010, 144 recently-infected* WNV positive dead birds have been reported from 18 counties, and 3 WNV positive squirrels have been reported from 3 counties. An additional 64 chronic WNV infections have been detected in birds from 17 counties (see www.westnile.ca.gov for more details). At this time last year, 240 birds from 31 counties and one tree squirrel had tested positive for WNV. Year-to-date totals from last year and previous years include both recent and chronic infections.

**In 2010, The University of California, Center for Vectorborne Diseases (CVEC) and the California Department of Public Health, Vector-Borne Disease Section began differentiating between chronic and acute infections in West Nile virus positive dead birds. Birds considered to have chronic infection with WNV are unlikely to have been infected recently with WNV and have limited surveillance utility.*

Mosquito Pools

This week, 112 WNV positive mosquito pools were reported from the following 12 counties: Fresno (18), Kern (26), Kings (3), Los Angeles (2), Placer (3), Riverside (2), Sacramento (29), San Bernardino (4), San Diego (1), Stanislaus (4), Sutter (7), and Tulare (13). This is the first WNV positive mosquito pool detected in San Diego County this year. In 2010, 433 mosquito pools from 19 counties have tested positive for WNV. At this time last year, 292 WNV positive mosquito pools had been reported from 18 counties.

Sentinel Chickens

No seroconversions were reported this week. In 2010, 24 WNV positive chickens have been detected among 6 flocks from 3 counties. At this time last year, 24 WNV positive chickens from 7 counties had been reported.

2009 & 2010 YTD West Nile Virus Comparisons		
	2009	2010
Total # Dead Bird Reports	10,519	6,675
# Positive Counties	33	22
# Human Cases	1	6
# Horse Cases	1	0
# Positive Dead Birds / # Tested	240 / 1,739	144 / 1,279
# Positive Mosquito Pools / # Tested	292 / 14,174	433 / 15,334
# Seroconversions / # Tested	24 / 13,617	24 / 13,862
# Positive Squirrels / # Tested	1 / 58	3 / 52

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YTD WNV Activity by Element and County, 2010

County	Humans	Horses	Dead Birds [^]	Mosquito Pools	Sentinel Chickens	Squirrels
Butte			2			1
Fresno	2		10	51		1
Imperial				9	8	
Kern	1		3	92	1	
Kings				7		
Los Angeles			9	6		
Madera			7	6		
Merced			6	4		
Orange			3	7		
Placer			1	5		
Riverside				41	15	
Sacramento			45	123		
San Bernardino			1	6		1
San Diego			1	1		
San Joaquin			14	6		
Santa Clara			22	10		
Santa Cruz			4			
Shasta			1			
Stanislaus	3		10	11		
Sutter				12		
Tulare			2	35		
Yolo			3	1		
Totals	6	0	144	433	24	3

[^] Chronic infections are not included in county totals.

TEST SUMMARIES

Human & Horse Cases

		Number Tested	WNV		WEE		SLE	
			Local	Imported	Local	Imported	Local	Imported
Humans Tested*	Week	12	2	0	0	0	0	0
	YTD	412	6	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0
	YTD	81	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	147	47
	YTD	1,279	144
Tree Squirrels	Week	4	0
	YTD	52	3

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLE Positive	WEE Positive
Chicken Sera	Week	759	0	0	0
	YTD	13,862	24	0	0
Mosquito Pools: RT-PCR	Week	1,379	112	0	0
	YTD	14,766	420	0	0
Mosquito Pools: RAMP	Week	92	0	N/A	N/A
	YTD	568	13	N/A	N/A

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NEW POSITIVES

Humans

WNV Cases							
ID	Report Date	County ¹	Age	Sex	Clin Pres	Onset Date	WNV Fatality?
10-0005	07/26/10	Fresno	55	F	WNF	07/20/10	NO
10-0006	07/29/10	Fresno	53	F	WNF	07/13/10	NO
WNV Positive Blood Donors (Asymptomatic Infections)							
ID	Report Date	County ¹	Age	Sex			
BD10-0004	07/27/10	Fresno	58	F			

¹County of residence

Dead Birds & Squirrels

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Butte	Butte Co MVCD	Oroville	95966	Lesser Goldfinch	7/13/2010	WNV	Chronic	RT-PCR
Butte	Butte Co MVCD	Oroville	95965	European Starling	7/13/2010	WNV	Chronic	RT-PCR
Butte	Butte Co MVCD	Magalia	95954	American Robin	7/13/2010	WNV	Chronic	RT-PCR
Butte	Butte Co MVCD	Chico	95973	Western Scrub-Jay	7/14/2010	WNV	Chronic	RT-PCR
Butte	Butte Co MVCD	Chico	95973	European Starling	7/19/2010	WNV	Chronic	RT-PCR
Fresno	Consolidated MAD	Fresno	93720	American Crow	7/16/2010	WNV	Recent	RT-PCR
Fresno	Consolidated MAD	Clovis	93612	American Crow	7/15/2010	WNV	Recent	RT-PCR
Fresno	Consolidated MAD	Fresno	93727	Western Scrub-Jay	7/21/2010	WNV	Recent	RT-PCR
Fresno	Fresno MVCD	Fresno	93725	House Sparrow	7/12/2010	WNV	Chronic	RT-PCR
Fresno	Fresno MVCD	Fresno	93725	House Sparrow	7/12/2010	WNV	Chronic	RT-PCR
Fresno	Fresno MVCD	Fresno	93711	Western Scrub-Jay	7/21/2010	WNV	Recent	RT-PCR
Kern	Kern MVCD	Bakersfield	93309	Western Scrub-Jay	7/19/2010	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD	Granada Hills	91344	Lesser Goldfinch	7/19/2010	WNV	Chronic	RT-PCR
Los Angeles	Los Angeles Co Vet	La Verne	91750	House Sparrow	7/13/2010	WNV	Chronic	RT-PCR
Los Angeles	Los Angeles Co Vet	Agoura Hills	91301	Cooper's Hawk	7/15/2010	WNV	Chronic	RT-PCR
Los Angeles	Los Angeles Co Vet	Claremont	91711	American Crow	7/13/2010	WNV	Recent	RT-PCR
Madera	Madera Co MVCD	Madera	93636	Domestic Duck	7/19/2010	WNV	Recent	RT-PCR
Merced	Merced Co MAD	Merced	95348	Western Scrub-Jay	7/13/2010	WNV	Recent	RT-PCR
Monterey	Monterey Co Env Health	Soledad	93960	Western Scrub-Jay	7/15/2010	WNV	Chronic	RT-PCR
Nevada	Nevada Co Env Health	Grass Valley	95945	Western Tanager	7/14/2010	WNV	Chronic	RT-PCR
Nevada	Nevada Co Env Health	Nevada City	95959	Black-headed Grosbeak	7/16/2010	WNV	Chronic	RT-PCR
Orange	Orange Co VCD	La Habra	90631	American Crow	7/21/2010	WNV	Recent	RT-PCR
Placer	Placer MVCD	Auburn	95603	American Robin	7/16/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Western Scrub-Jay	7/15/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Nuttall's Woodpecker	7/15/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Citrus Heights	95610	Western Scrub-Jay	7/15/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Western Scrub-Jay	7/19/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95841	Red-shouldered Hawk	7/19/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95834	Starling	7/20/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Western Scrub-Jay	7/20/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95819	House Sparrow	7/21/2010	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	House Finch	7/14/2010	WNV	Recent	RT-PCR

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Sacramento	Sacramento-Yolo MVCD	Mather	95655	Western Scrub-Jay	7/14/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95841	Western Scrub-Jay	7/15/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95819	American Crow	7/15/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95829	Yellow-billed Magpie	7/15/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	American Crow	7/19/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	American Crow	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95823	American Crow	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Western Scrub-Jay	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	American Crow	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Rio Linda	95673	Western Scrub-Jay	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	American Crow	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Antelope	95843	Western Scrub-Jay	7/20/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95819	American Crow	7/21/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	American Crow	7/21/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	American Crow	7/21/2010	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Citrus Heights	95621	American Crow	7/21/2010	WNV	Recent	RT-PCR
San Bernardino	San Bernardino VCP	Loma Linda	92354	House Sparrow	7/18/2010	WNV	Chronic	RT-PCR
San Joaquin	San Joaquin Co MVCD	Stockton	95212	American Robin	7/15/2010	WNV	Chronic	RT-PCR
San Joaquin	San Joaquin Co MVCD	Stockton	95209	American Robin	7/14/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Manteca	95336	Western Scrub-Jay	7/15/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Escalon	95320	European Starling	7/15/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Manteca	95336	Yellow-billed Magpie	7/15/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Stockton	95205	Western Scrub-Jay	7/16/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Stockton	95210	Western Scrub-Jay	7/16/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Stockton	95207	American Robin	7/19/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Manteca	95336	House Finch	7/20/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Manteca	95337	Western Scrub-Jay	7/21/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Lodi	95242	Western Scrub-Jay	7/21/2010	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Lodi	95242	Western Scrub-Jay	7/21/2010	WNV	Recent	RT-PCR
Santa Clara	Santa Clara Co VCD	Stanford	94305	American Crow	7/22/2010	WNV	Recent	VecTest
Shasta	Shasta MVCD	Redding	96003	House Finch	7/15/2010	WNV	Recent	RT-PCR
Stanislaus	East Side MAD	Modesto	95358	House Finch	7/21/2010	WNV	Chronic	RT-PCR
Stanislaus	East Side MAD	Modesto	95355	American Crow	7/14/2010	WNV	Recent	RT-PCR
Stanislaus	East Side MAD	Modesto	95354	House Sparrow	7/15/2010	WNV	Recent	RT-PCR
Stanislaus	Turlock MAD	Newman	95360	Western Scrub-Jay	7/13/2010	WNV	Chronic	RT-PCR
Stanislaus	Turlock MAD	Turlock	95380	Yellow-billed Magpie	7/13/2010	WNV	Recent	RT-PCR
Stanislaus	Turlock MAD	Ceres	95307	Western Scrub-Jay	7/14/2010	WNV	Recent	RT-PCR
Stanislaus	Turlock MAD	Patterson	95353	American Crow	7/15/2010	WNV	Recent	RT-PCR
Stanislaus	Turlock MAD	Ceres	95307	Yellow-billed Magpie	7/20/2010	WNV	Recent	RT-PCR
Tulare	Delta VCD	Visalia	93292	House Sparrow	7/20/2010	WNV	Chronic	RT-PCR
Tulare	Tulare MAD	Tulare	93274	Barn Owl	7/21/2010	WNV	Chronic	RT-PCR
Tulare	Tulare MAD	Porterville	93257	American Crow	7/15/2010	WNV	Recent	RT-PCR
Yolo	Sacramento-Yolo MVCD	Woodland	95695	American Crow	7/15/2010	WNV	Recent	RT-PCR

Mosquitoes

County	Site Code	Pool #	Species	# in pool	City	Collected	Virus	Method
Fresno	CNSL1116	192	Culex quinquefasciatus	50	Fresno	7/23/2010	WNV	RTPCR
Fresno	CNSL1386	177	Culex quinquefasciatus	50	Fresno	7/21/2010	WNV	RTPCR
Fresno	CNSL1735	178	Culex quinquefasciatus	50	Fresno	7/21/2010	WNV	RTPCR
Fresno	CNSL1735	179	Culex quinquefasciatus	50	Fresno	7/21/2010	WNV	RTPCR
Fresno	CNSL2065	197	Culex quinquefasciatus	50	Sanger	7/27/2010	WNV	RTPCR

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Fresno	CNSL2065	198	Culex stigmatosoma	9	Sanger	7/27/2010	WNV	RTPCR
Fresno	CNSL2083	183	Culex quinquefasciatus	50	Sanger	7/21/2010	WNV	RTPCR
Fresno	CNSL2212	182	Culex quinquefasciatus	12	Sanger	7/21/2010	WNV	RTPCR
Fresno	CNSL2266	500	Culex quinquefasciatus	50	Sanger	7/27/2010	WNV	RTPCR
Fresno	CNSL2337	180	Culex quinquefasciatus	50	Sanger	7/21/2010	WNV	RTPCR
Fresno	CNSL2399	181	Culex quinquefasciatus	45	Sanger	7/21/2010	WNV	RTPCR
Fresno	CNSL2400	195	Culex quinquefasciatus	28	Sanger	7/27/2010	WNV	RTPCR
Fresno	CNSL2400	196	Culex tarsalis	32	Sanger	7/27/2010	WNV	RTPCR
Fresno	CNSL3069	439	Culex quinquefasciatus	50	Parlier	7/23/2010	WNV	RTPCR
Fresno	CNSL3124	446	Culex quinquefasciatus	42	Dinuba	7/27/2010	WNV	RTPCR
Fresno	CNSL3249	448	Culex quinquefasciatus	31	Reedley	7/27/2010	WNV	RTPCR
Fresno	CNSL4011	442	Culex quinquefasciatus	50	Fresno	7/27/2010	WNV	RTPCR
Fresno	CNSL5094	428	Culex quinquefasciatus	38	Kingsburg	7/21/2010	WNV	RTPCR
Kern	AFSB0	98	Unknown	50	Bakersfield	7/27/2010	WNV	RTPCR
Kern	KERN1005	635	Culex quinquefasciatus	36	Bakersfield	7/20/2010	WNV	RTPCR
Kern	KERN115	631	Culex tarsalis	50	Bakersfield	7/20/2010	WNV	RTPCR
Kern	KERN115	632	Culex tarsalis	50	Bakersfield	7/20/2010	WNV	RTPCR
Kern	KERN115	633	Culex tarsalis	35	Bakersfield	7/20/2010	WNV	RTPCR
Kern	KERN2001	700	Culex quinquefasciatus	41	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2002	693	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2002	694	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2002	695	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2007	696	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2007	697	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2010	616	Culex quinquefasciatus	41	Bakersfield	7/16/2010	WNV	RTPCR
Kern	KERN2011	666	Culex quinquefasciatus	50	Bakersfield	7/21/2010	WNV	RTPCR
Kern	KERN2014	689	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2014	690	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2016	668	Culex quinquefasciatus	50	Bakersfield	7/21/2010	WNV	RTPCR
Kern	KERN2020	692	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2024	688	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2027	691	Culex quinquefasciatus	20	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2028	698	Culex quinquefasciatus	50	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2028	699	Culex quinquefasciatus	45	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2031	684	Culex quinquefasciatus	38	Bakersfield	7/23/2010	WNV	RTPCR
Kern	KERN2043	639	Culex quinquefasciatus	15	Bakersfield	7/20/2010	WNV	RTPCR
Kern	KERN2051	667	Culex quinquefasciatus	50	Bakersfield	7/21/2010	WNV	RTPCR
Kern	KERN3009	677	Culex quinquefasciatus	24	Bakersfield	7/22/2010	WNV	RTPCR
Kern	KERN3017	676	Culex quinquefasciatus	27	Bakersfield	7/22/2010	WNV	RTPCR
Kings	KNGS3022	237	Culex tarsalis	50	Hanford	7/26/2010	WNV	RTPCR
Kings	KNGS3030	275	Culex tarsalis	50	Lemoore	7/28/2010	WNV	RTPCR
Kings	KNGS3049	267	Culex tarsalis	13	Lemoore	7/27/2010	WNV	RTPCR
Los Angeles	GRLA2365	1117	Culex quinquefasciatus	49	Pico Rivera	7/20/2010	WNV	RTPCR
Los Angeles	GRLA3000	5971	Culex quinquefasciatus	46	Sun Valley	7/20/2010	WNV	RTPCR
Placer	PLCR1113	162	Culex tarsalis	42	Pleasant Grove	7/26/2010	WNV	RTPCR
Placer	PLCR2036	146	Culex tarsalis	21	Roseville	7/22/2010	WNV	RTPCR
Placer	PLCR58	170	Culex tarsalis	28	Lincoln	7/26/2010	WNV	RTPCR
Riverside	COAV130	2384	Culex tarsalis	32	Mecca	7/22/2010	WNV	RTPCR
Riverside	COAV610	2387	Culex tarsalis	38		7/23/2010	WNV	RTPCR
Sacramento	SAYO203011	2937	Cx pipiens	50	Antelope	7/22/2010	WNV	RTPCR
Sacramento	SAYO203011	2938	Cx pipiens	50	Antelope	7/22/2010	WNV	RTPCR
Sacramento	SAYO203011	3147	Culex pipiens	21	Antelope	7/27/2010	WNV	RTPCR
Sacramento	SAYO204009	3149	Culex pipiens	3	Citrus Heights	7/27/2010	WNV	RTPCR
Sacramento	SAYO204017	3143	Culex pipiens	25	Citrus Heights	7/27/2010	WNV	RTPCR
Sacramento	SAYO204032	2898	Cx tarsalis	10	Sacramento	7/22/2010	WNV	RTPCR
Sacramento	SAYO204035	2948	Cx tarsalis	21	Sacramento	7/22/2010	WNV	RTPCR
Sacramento	SAYO212002	2964	Cx tarsalis	12	Sacramento	7/22/2010	WNV	RTPCR
Sacramento	SAYO212002	2966	Cx pipiens	50	Sacramento	7/22/2010	WNV	RTPCR
Sacramento	SAYO214004	2888	Cx pipiens	13	Sacramento	7/22/2010	WNV	RTPCR
Sacramento	SAYO214004	3161	Culex pipiens	43	Fair Oaks	7/27/2010	WNV	RTPCR
Sacramento	SAYO214013	3166	Culex tarsalis	12	Carmichael	7/27/2010	WNV	RTPCR

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Sacramento	SAYO214023	3185	Culex tarsalis	2	Rancho Cordova	7/27/2010	WNV	RTPCR
Sacramento	SAYO215014	3018	Culex tarsalis	22	Rancho Cordova	7/23/2010	WNV	RTPCR
Sacramento	SAYO223023	3283	Culex tarsalis	3	Rancho Cordova	7/29/2010	WNV	RTPCR
Sacramento	SAYO233001	3066	Culex pipiens	4	Elk Grove	7/24/2010	WNV	RTPCR
Sacramento	SAYO233016	3035	Culex pipiens	28	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO233018	3040	Culex pipiens	1	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO233028	3051	Culex pipiens	13	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO233030	3041	Culex tarsalis	12	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO233034	3029	Culex tarsalis	6	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO234002	3061	Culex tarsalis	30	Elk Grove	7/24/2010	WNV	RTPCR
Sacramento	SAYO234002	3063	Culex pipiens	38	Elk Grove	7/24/2010	WNV	RTPCR
Sacramento	SAYO234004	3280	Culex tarsalis	8	Elk Grove	7/29/2010	WNV	RTPCR
Sacramento	SAYO234004	3281	Culex pipiens	23	Elk Grove	7/29/2010	WNV	RTPCR
Sacramento	SAYO234009	3093	Culex tarsalis	23	Elk Grove	7/24/2010	WNV	RTPCR
Sacramento	SAYO234010	3080	Culex tarsalis	24	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO234010	3082	Culex pipiens	13	Sacramento	7/24/2010	WNV	RTPCR
Sacramento	SAYO234011	3103	Culex tarsalis	20	Sacramento	7/24/2010	WNV	RTPCR
San Bernardino	WVAL2020	604	Culex quinquefasciatus	39	Fwy CA 71	7/19/2010	WNV	RTPCR
San Bernardino	WVAL6007	534	Culex quinquefasciatus	34	Ontario	7/12/2010	WNV	RTPCR
San Bernardino	WVAL6007	535	Culex quinquefasciatus	34	Ontario	7/12/2010	WNV	RTPCR
San Bernardino	WVAL6007	536	Culex stigmatosoma	10	Ontario	7/12/2010	WNV	RTPCR
San Diego	SAND350	101	Culex quinquefasciatus	17	Lemon Grove	7/21/2010	WNV	RTPCR
Stanislaus	TRLK305	362	Culex tarsalis	50	Grayson	7/27/2010	WNV	RTPCR
Stanislaus	TRLK414	383	Culex tarsalis	17	Modesto	7/27/2010	WNV	RTPCR
Stanislaus	TRLK614	348	Culex pipiens	50	Crows Landing	7/27/2010	WNV	RTPCR
Stanislaus	TRLK9709	335	Culex pipiens	11	Ceres	7/21/2010	WNV	RTPCR
Sutter	SUYA14	197	Culex tarsalis	50	Sutter	7/26/2010	WNV	RTPCR
Sutter	SUYA16	215	Culex tarsalis	37	Trowbridge	7/26/2010	WNV	RTPCR
Sutter	SUYA31	182	Culex tarsalis	50	Rio Oso	7/22/2010	WNV	RTPCR
Sutter	SUYA31	184	Culex pipiens	50	Rio Oso	7/22/2010	WNV	RTPCR
Sutter	SUYA31	193	Culex tarsalis	50	Rio Oso	7/26/2010	WNV	RTPCR
Sutter	SUYA44	204	Culex tarsalis	50	Pleasant Grove	7/26/2010	WNV	RTPCR
Sutter	SUYA44	210	Culex tarsalis	50	Pleasant Grove	7/26/2010	WNV	RTPCR
Tulare	DLTA6330	555	Culex quinquefasciatus	27	Kingsburg	7/27/2010	WNV	RTPCR
Tulare	DLTA6405	524	Culex quinquefasciatus	50	Dinuba	7/23/2010	WNV	RTPCR
Tulare	DLTA6408	520	Culex quinquefasciatus	49	Dinuba	7/23/2010	WNV	RTPCR
Tulare	DLTA6408	521	Culex quinquefasciatus	50	Dinuba	7/23/2010	WNV	RTPCR
Tulare	DLTA8309	538	Culex tarsalis	50	Goshen	7/23/2010	WNV	RTPCR
Tulare	DLTA8313	494	Culex tarsalis	50		7/21/2010	WNV	RTPCR
Tulare	DLTA8314	500	Culex tarsalis	50		7/21/2010	WNV	RTPCR
Tulare	DLTA8314	507	Culex tarsalis	50		7/21/2010	WNV	RTPCR
Tulare	DLTA8314	540	Culex tarsalis	50		7/23/2010	WNV	RTPCR
Tulare	DLTA8314	541	Culex tarsalis	50		7/23/2010	WNV	RTPCR
Tulare	DLTA8314	542	Culex tarsalis	31		7/23/2010	WNV	RTPCR
Tulare	DLTA8423	515	Culex quinquefasciatus	47	Visalia	7/22/2010	WNV	RTPCR
Tulare	DLTA9603	548	Culex quinquefasciatus	44	Exeter	7/27/2010	WNV	RTPCR

California Arbovirus Surveillance Bulletin # 23

Week 30 Friday, July 30, 2010

NATIONAL COMMENTS

As of July 27, 2010, 35 human cases of WNV had been reported nationwide in 10 states: Alabama (1), Arizona (17), California (2), Colorado (4), Georgia (3), Kansas (1), Mississippi (1), Missouri (1), North Dakota (1) and South Dakota (2). Of the 35 cases, 19 (54%) had neuroinvasive disease. One WNV-related fatality has been reported in Arizona.

TEST PROTOCOLS

Humans:

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing or confirmation by plaque reduction neutralization test (PRNT).

*Human denominator data only includes specimens tested at VRDL and does not include additional negative specimens that are tested by local agencies only.

Horses:

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

Dead Birds and Tree Squirrels:

Dead birds and tree squirrels are necropsied at CAHFS laboratory at University of California, Davis. Oral swabs from American Crows and kidney tissue from all other dead birds and squirrels are forwarded to the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus testing using the singleplex RT-PCR Taqman assay and confirmed with a second primer set. The WNV Dead Bird Surveillance Coordinator, Erin Parker, can be reached directly at (510) 412-6254.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for the presence of antibodies to West Nile, western equine encephalomyelitis (WEE), and St. Louis encephalitis (SLE) viruses by EIA and IFA. Positive samples are confirmed by western-blot or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and 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.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6253 or email: tina.feiszli@cdph.ca.gov

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov
