

California Arbovirus Surveillance Bulletin #33

Week 39 Friday, September 30, 2011



WEEKLY UPDATE

Human Cases

Twenty new human cases of West Nile virus (WNV) were reported this week from Contra Costa (1), Kern (1), Los Angeles (12), Merced (1), Orange (1), Stanislaus (1), and Tulare (3). To date this year, 87 WNV cases have been reported from 18 counties; of the 87 cases, 59 (68%) developed neuroinvasive disease. The median age for all cases is 57 years (range: 17-86 years) and 53 (61%) are male. No fatalities have been reported. Additionally, 16 WNV-positive blood donors have been reported this year; 7 of the individuals subsequently developed symptoms and were reclassified as cases.

At this time last year, 61 WNV cases had been reported from 11 counties.

National Activity: As of September 27, 2011, 362 human cases of WNV had been reported nationwide in 36 states: Alabama (1), Arizona (30), California (67), Colorado (2), Connecticut (8), Delaware (1), Florida (17), Georgia (4), Idaho (1), Illinois (12), Indiana (7), Iowa (5), Louisiana (7), Maryland (13), Massachusetts (2), Michigan (18), Mississippi (40), Missouri (5), Montana (1), Nebraska (22), Nevada (13), New Jersey (4), New Mexico (2), New York (26), North Carolina (2), North Dakota (4), Ohio (15), Pennsylvania (4), Rhode Island (1), South Dakota (1), Tennessee (8), Texas (9), Vermont (1), Virginia (5), West Virginia (1), and Wyoming (3). Of the 362 cases, 244 (67%) developed neuroinvasive disease. A total of 18 WNV-related fatalities have been reported in Arizona (2), Florida (2), Georgia (1), Illinois (1), Indiana (1), Michigan (2), Mississippi (4), Nevada (1), New York (1), Ohio (1), Pennsylvania (1), and Texas (1).

Horses

Two equine cases of WNV were reported this week from Fresno County. Both horses developed symptoms in late September and are currently recovering. In 2011, 10 horses from 6 counties have tested positive for WNV, and one fatality has been reported. At this time last year, 16 cases of WNV had been reported among horses from 9 counties.

Dead Birds & Squirrels

Sixty-three WNV positive dead birds were reported this week from 13 counties: Contra Costa (4), Fresno (1), Kings (1), Lake (1), Los Angeles (25), Madera (1), Orange (7), Placer (2), Sacramento (10), San Bernardino (6), San Joaquin (1), Santa Clara (1) and Tulare (3). This is the first WNV positive dead bird reported from Lake county in 2011. To date this year, 526 dead birds from 25 counties and 3 tree squirrels from 3 counties have tested positive for WNV. An additional 106 birds have tested positive for chronic* WNV infection from 25 counties.

At this time last year, 374 birds from 25 counties, and 20 tree squirrels from 8 counties had tested positive for WNV.

**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 WNV 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

Ninety WNV positive mosquito pools were reported this week from the following 15 counties: Butte (1), Fresno (3), Imperial (1), Kern (16), Kings (6), Los Angeles (18), Merced (1), Placer (1), Sacramento (30), San Bernardino (2), San Joaquin (2), Santa Clara (1), Stanislaus (4), Tulare (2), and Yolo (2). This is the first WNV positive mosquito pool reported from Butte County this year. In 2011, 1,896 mosquito pools from 25 counties have tested positive for WNV.

At this time last year, 1,259 mosquito pools from 24 counties had tested positive for WNV.

Sentinel Chickens

Thirty-five WNV seroconversions were reported this week from 15 flocks in the following 5 counties: Kern (3), Los Angeles (8), Merced (4), Riverside (15), and San Bernardino (5). To date this year, 252 WNV positive chickens have been detected among 59 flocks in 15 counties.

At this time last year, 241 chickens (57 flocks) had tested positive for WNV from 20 counties.

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westmile.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.westmilemaps.usgs.gov

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2010 & 2011 YTD West Nile Virus Comparisons		
	2010	2011
Total # Dead Bird Reports	9,354	8,467
# Positive Counties	34	32
# Human Cases	61	87
# Horse Cases	16	10
# Positive Dead Birds / # Tested	374 / 1,921	526 / 2,008
# Positive Mosquito Pools / # Tested	1,259 / 26,850	1,896 / 28,318
# Seroconversions / # Tested	241 / 21,960	252 / 17,982
# Positive Squirrels / # Tested	20 / 88	3 / 70

YTD WNV Activity by Element and County, 2011

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Butte	2			1	9	
Contra Costa	1		25	5		
El Dorado	1		1			
Fresno	5	5	14	116		
Glenn	1		1		4	
Imperial				3	3	
Inyo				2		
Kern	10	1	3	354	103	
Kings			4	61		
Lake			1	3		
Los Angeles	35	1	194	406	41	1
Madera	1		3	5		
Merced	1	1	5	11	6	
Nevada			1			
Orange	4		31	82		
Placer	1	1	5	48	2	
Riverside	3		5	46	27	
Sacramento			113	376	3	1
San Bernardino	2		22	113	39	
San Diego				1		
San Joaquin	2		16	49		
Santa Barbara	1					
Santa Clara			22	15		1
Shasta				1		
Solano					1	
Stanislaus	8		13	83	5	
Sutter			1	26	4	
Tehama			1			
Tulare	8	1	39	81	4	
Ventura			1			
Yolo			4	7		
Yuba	1		1	1	1	
Totals	87	10	526	1,896	252	3

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TESTING SUMMARIES

Humans and Horses

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	20	0	0	0	0	0
	YTD	87	0	0	0	0	0
Horse Cases	Week	2	0	0	0	0	0
	YTD	10	0	0	0	0	0

Dead Birds & Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	103	63
	YTD	2,008	526
Tree Squirrels	Week	2	0
	YTD	70	3

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	706	35	0	0
	YTD	17,982	252	0	0
Mosquito Pools: RT-PCR	Week	1,304	90	0	0
	YTD	28,043	1,885	0	0
Mosquito Pools: RAMP	Week	44	0	N/A	N/A
	YTD	275	11	N/A	N/A

NEW POSITIVES

Humans

WNV Cases							
ID	Report Date	County	Age	Sex	Clin Pres	Onset Date	WNV Fatality?
11-0068	09/26/11	Los Angeles	63	M	WNND	09/04/11	NO
11-0069	09/26/11	Contra Costa	>18	F	WNND	09/06/11	NO
11-0070	09/26/11	Merced	>18	M	WNND	09/01/11	NO
11-0071	09/28/11	Kern	79	F	WNND	n/a	NO
11-0072	09/28/11	Orange	75	M	WNND	WEEK 37	NO
11-0073	09/29/11	Stanislaus	41	F	WNND	09/19/11	NO
11-0074	09/29/11	Tulare	41	F	WNF	08/10/11	NO
11-0075	09/29/11	Tulare	36	F	WNF	09/15/11	NO
11-0076	09/29/11	Tulare	77	M	WNND	09/13/11	NO
11-0077	09/29/11	Los Angeles	53	F	WNF	08/20/11	NO
11-0078	09/29/11	Los Angeles	48	M	WNND	09/17/11	NO
11-0079	09/29/11	Los Angeles	64	F	WNND	09/18/11	NO
11-0080	09/29/11	Los Angeles	63	F	WNF	08/20/11	NO
11-0081	09/29/11	Los Angeles	68	M	WNF	09/11/11	NO
11-0082	09/29/11	Los Angeles	43	F	WNF	09/07/11	NO
11-0083	09/29/11	Los Angeles	46	F	WNND	09/14/11	NO
11-0084	09/29/11	Los Angeles	47	M	WNND	08/10/11	NO
11-0085	09/29/11	Los Angeles	55	M	WNND	08/28/11	NO
11-0086	09/29/11	Los Angeles	79	M	WNND	09/16/11	NO
11-0087	09/29/11	Los Angeles	36	M	WNF	09/09/11	NO
Presumptive Viremic Blood Donors (Asymptomatic Infections)							
BD11-0011	09/27/11	San Joaquin	69	F			

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Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Contra Costa	Contra Costa MVCD	Concord	94518	Western Scrub-Jay	9/18/2011	WNV	Recent	RT-PCR
Contra Costa	Contra Costa MVCD	Concord	94519	American Crow	9/22/2011	WNV	Recent	RAMP
Contra Costa	Contra Costa MVCD	Pleasant Hill	94523	American Crow	9/22/2011	WNV	Recent	RAMP
Contra Costa	Contra Costa MVCD	Concord	94518	Western Scrub-Jay	9/23/2011	WNV	Recent	RAMP
Contra Costa	Contra Costa MVCD	Discovery Bay	94505	Western Scrub-Jay	9/14/2011	WNV	Chronic	RT-PCR
Fresno	Fresno MVCD	Fresno	93711	House Finch	9/11/2011	WNV	Recent	RT-PCR
Kings	Kings MAD	Hanford	93230	American Crow	9/15/2011	WNV	Recent	RT-PCR
Lake	Lake Co VCD	Clearlake Oaks	95423	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Long Beach	90808	American Crow	8/31/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	La Mirada	90638	American Crow	9/1/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Cerritos	90703	House Sparrow	9/2/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Santa Fe Springs	90670	House Sparrow	9/7/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Norwalk	90650	American Crow	9/8/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Cerritos	90703	American Crow	9/9/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Cerritos	90703	American Crow	9/9/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Cerritos	90703	American Crow	9/9/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Whittier	90603	American Crow	9/11/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Norwalk	90650	American Crow	9/14/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-SFS	Pico Rivera	90660	American Crow	9/19/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-Sylmar	North Hollywood	91601	American Crow	9/14/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-Sylmar	Van Nuys	91411	American Crow	9/16/2011	WNV	Recent	RT-PCR
Los Angeles	Greater LA Co VCD-Sylmar	North Hills	91343	Mourning Dove	9/18/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Arcadia	91007	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Santa Clarita	91355	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Moorpark	93021	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Beverly Hills	90212	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Winnetka	91306	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Santa Clarita	91351	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Santa Clarita	91355	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Santa Clarita	91354	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	North Hollywood	91601	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	West Hills	91307	American Crow	9/15/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co West VCD	Lomita	90717	American Crow	9/16/2011	WNV	Recent	RT-PCR
Madera	Madera Co MVCD	Madera	93636	American Crow	9/19/2011	WNV	Recent	RT-PCR
Mendocino	Mendocino Co Env Health	Boonville	95415	American Crow	9/18/2011	WNV	Chronic	RT-PCR
Orange	Orange Co VCD	Garden Grove	92840	American Crow	9/14/2011	WNV	Recent	RT-PCR
Orange	Orange Co VCD	Tustin	92780	American Crow	9/14/2011	WNV	Recent	RT-PCR
Orange	Orange Co VCD	Fullerton	92833	American Crow	9/14/2011	WNV	Recent	RT-PCR
Orange	Orange Co VCD	Garden Grove	92843	American Crow	9/15/2011	WNV	Recent	RT-PCR
Orange	Orange Co VCD	Anaheim	92804	American Crow	9/19/2011	WNV	Recent	RT-PCR
Orange	Orange Co VCD	Anaheim	92804	American Crow	9/19/2011	WNV	Recent	RT-PCR
Orange	Orange Co VCD	Fountain Valley	92708	American Crow	9/19/2011	WNV	Recent	RT-PCR
Placer	Placer MVCD	Roseville	95747	Western Scrub-Jay	9/12/2011	WNV	Recent	RT-PCR
Placer	Placer MVCD	Lincoln	95648	American Robin	9/14/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Galt	95632	Western Scrub-Jay	9/16/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95816	American Crow	9/15/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	American Crow	9/17/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Wilton	95693	Western Scrub-Jay	9/18/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Wilton	95693	American Crow	9/18/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	9/18/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95832	American Crow	9/19/2011	WNV	Recent	VecTest
Sacramento	Sacramento-Yolo MVCD	Sacramento	95817	American Crow	9/19/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Rio Linda	95673	American Crow	9/20/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95831	Western Scrub-Jay	9/20/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95757	American Crow	9/14/2011	WNV	Chronic	RT-PCR
San Bernardino	San Bernardino VCP	Fontana	92335	American Crow	9/2/2011	WNV	Recent	RAMP
San Bernardino	San Bernardino VCP	Rialto	92376	American Crow	9/15/2011	WNV	Recent	VecTest
San Bernardino	San Bernardino VCP	Upland	91784	American Crow	9/22/2011	WNV	Recent	VecTest
San Bernardino	West Valley MVCD	Rancho Cucamonga	91730	American Crow	9/2/2011	WNV	Recent	RT-PCR
San Bernardino	West Valley MVCD	Ontario	91761	American Crow	9/12/2011	WNV	Recent	RT-PCR
San Bernardino	West Valley MVCD	Rancho Cucamonga	91701	American Crow	9/12/2011	WNV	Recent	RT-PCR
San Joaquin	San Joaquin Co MVCD	Manteca	95336	House Finch	9/13/2011	WNV	Recent	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95120	American Crow	9/20/2011	WNV	Recent	VecTest
Tulare	Delta VCD	Visalia	93291	American Crow	9/15/2011	WNV	Recent	RT-PCR
Tulare	Delta VCD	Visalia	93277	American Crow	9/19/2011	WNV	Recent	RT-PCR
Tulare	Delta VCD	Exeter	93221	Western Scrub-Jay	9/19/2011	WNV	Recent	RT-PCR

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Mosquitoes

County	Site Code	Pool #	Species	# in Pool	Collected	City	Virus	Method
Butte	BUCO0000	102	Unknown	50	9/26/2011	Oroville	WNV	RTPCR
Fresno	CNSL4158	462	Cx. quinquefasciatus	50	9/22/2011	Fresno	WNV	RTPCR
Fresno	CNSL4159	465	Cx. quinquefasciatus	42	9/23/2011	Fresno	WNV	RTPCR
Fresno	CNSL4160	464	Cx. quinquefasciatus	50	9/23/2011	Fresno	WNV	RTPCR
Imperial	COAV5001	2300	Cx. tarsalis	50	9/20/2011	Niland	WNV	RTPCR
Kern	KERN0115	2488	Cx. tarsalis	50	9/23/2011	Bakersfield	WNV	RTPCR
Kern	KERN0115	2489	Cx. tarsalis	50	9/23/2011	Bakersfield	WNV	RTPCR
Kern	KERN2007	2478	Cx. quinquefasciatus	33	9/23/2011	Bakersfield	WNV	RTPCR
Kern	KERN2018	2433	Cx. quinquefasciatus	29	9/22/2011	Bakersfield	WNV	RTPCR
Kern	KERN2030	2426	Cx. quinquefasciatus	50	9/21/2011	Bakersfield	WNV	RTPCR
Kern	KERN2040	2295	Cx. quinquefasciatus	50	9/15/2011	Arvin	WNV	RTPCR
Kern	KERN0029	2417	Cx. tarsalis	36	9/21/2011	Lamont	WNV	RTPCR
Kern	KERN3024	2376	Cx. quinquefasciatus	50	9/20/2011	Bakersfield	WNV	RTPCR
Kern	KERN3026	2443	Cx. tarsalis	42	9/22/2011	Arvin93203	WNV	RTPCR
Kern	KERN3032	2391	Cx. tarsalis	14	9/20/2011		WNV	RTPCR
Kern	KERN3032	2392	Cx. quinquefasciatus	50	9/20/2011		WNV	RTPCR
Kern	KERN3041	2218	Cx. tarsalis	50	9/13/2011	Bakersfield	WNV	RTPCR
Kern	KERN3041	2368	Cx. tarsalis	50	9/20/2011	Bakersfield	WNV	RTPCR
Kern	KERN0032	2446	Cx. quinquefasciatus	50	9/22/2011	Arvin	WNV	RTPCR
Kern	KERN0091	2397	Cx. tarsalis	50	9/20/2011	Lost Hills	WNV	RTPCR
Kern	WEST6231	60	Cx. quinquefasciatus	50	9/28/2011	Taft	WNV	RTPCR
Kings	KNGS3069	799	Cx. pipiens	50	9/20/2011	Hanford	WNV	RTPCR
Kings	KNGS3069	800	Cx. pipiens	50	9/20/2011	Hanford	WNV	RTPCR
Kings	KNGS3074	785	Cx. tarsalis	36	9/20/2011	Armona	WNV	RTPCR
Kings	KNGS4003	804	Cx. tarsalis	33	9/20/2011	Hanford	WNV	RTPCR
Kings	KNGS4007	807	Cx. pipiens	13	9/20/2011	Lemoore	WNV	RTPCR
Kings	KNGS4011	798	Cx. pipiens	50	9/20/2011	Hanford	WNV	RTPCR
Los Angeles	GRLA2097	1475	Cx. quinquefasciatus	46	9/22/2011	La Mirada	WNV	RTPCR
Los Angeles	GRLA2100	1473	Cx. quinquefasciatus	51	9/22/2011	Norwalk	WNV	RTPCR
Los Angeles	GRLA2116	1461	Cx. quinquefasciatus	41	9/22/2011	Bell	WNV	RTPCR
Los Angeles	GRLA2228	1479	Cx. quinquefasciatus	36	9/22/2011	Diamond Bar	WNV	RTPCR
Los Angeles	GRLA2268	1463	Cx. quinquefasciatus	38	9/22/2011	Cerritos	WNV	RTPCR
Los Angeles	GRLA2277	1464	Cx. quinquefasciatus	18	9/22/2011	Long Beach	WNV	RTPCR
Los Angeles	GRLA2383	1476	Cx. quinquefasciatus	28	9/22/2011	Whittier	WNV	RTPCR
Los Angeles	GRLA2414	6338	Cx. quinquefasciatus	50	9/22/2011	Granada Hills	WNV	RTPCR
Los Angeles	GRLA2520	6352	Cx. quinquefasciatus	41	9/22/2011	Los Angeles	WNV	RTPCR
Los Angeles	GRLA2583	6335	Cx. quinquefasciatus	50	9/22/2011	Studio City	WNV	RTPCR
Los Angeles	GRLA2592	6358	Cx. quinquefasciatus	24	9/22/2011	San Marino	WNV	RTPCR
Los Angeles	GRLA2614	6362	Cx. quinquefasciatus	50	9/23/2011	Newhall	WNV	RTPCR
Los Angeles	GRLA2655	6336	Cx. quinquefasciatus	50	9/22/2011	Encino	WNV	RTPCR
Los Angeles	GRLA2655	6346	Cx. stigmatosoma	15	9/22/2011	Encino	WNV	RTPCR
Los Angeles	GRLA2936	6350	Cx. quinquefasciatus	50	9/22/2011	Burbank	WNV	RTPCR
Los Angeles	GRLA2936	6351	Cx. quinquefasciatus	12	9/22/2011	Burbank	WNV	RTPCR
Los Angeles	GRLA2955	1474	Cx. quinquefasciatus	38	9/22/2011	Cerritos	WNV	RTPCR
Los Angeles	GRLA2962	6342	Cx. quinquefasciatus	43	9/22/2011	Chatsworth	WNV	RTPCR
Merced	MERC1115	123	Cx. pipiens	50	9/27/2011		WNV	RTPCR
Placer	PLCR1023	1800	Cx. tarsalis	7	9/27/2011	Roseville	WNV	RTPCR
Sacramento	SAYO203032	5832	Cx. pipiens	18	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO204036	5848	Cx. pipiens	8	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO212030	5763	Cx. tarsalis	18	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO213017	5746	Cx. pipiens	23	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO213039	5761	Cx. pipiens	10	9/23/2011	Carmichael	WNV	RTPCR
Sacramento	SAYO214028	5778	Cx. pipiens	50	9/23/2011	Carmichael	WNV	RTPCR
Sacramento	SAYO214028	5779	Cx. pipiens	4	9/23/2011	Carmichael	WNV	RTPCR
Sacramento	SAYO222001	5829	Cx. pipiens	7	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO222010	5714	Cx. tarsalis	2	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO222010	5715	Cx. pipiens	19	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO222010	5716	Cx. pipiens	30	9/23/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO222015	5703	Cx. tarsalis	9	9/23/2011	Sacramento	WNV	RTPCR

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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.

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.

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 (WEEV), and St. Louis encephalitis (SLEV) 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 WEEV, SLEV, 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.
