

California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014



WEEKLY UPDATE

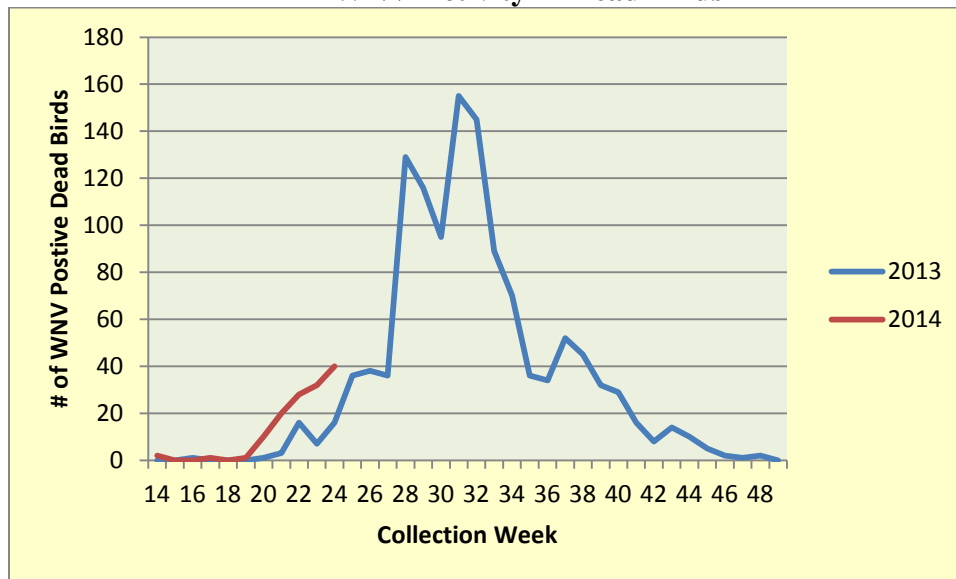
Humans

No human cases or asymptomatic infections have been reported in 2014. At this time last year, a human case of West Nile virus (WNV) illness had been reported from Sacramento County.

Dead Birds

A total of 70 WNV positive dead birds were reported this week from the following 10 counties: Contra Costa (2), Madera (2), Orange (3), Placer (1), Sacramento (10), San Mateo (1), Santa Clara (43), Solano (1), Tulare (6), and Yolo (1). **This is the first detection of WNV activity in Madera, Placer, San Mateo, and Yolo counties this year.** To date this year, 144 birds have tested positive for WNV from 15 counties. At this time last year, 17 WNV positive dead birds had been detected in 10 counties.

YTD WNV Activity in Dead Birds



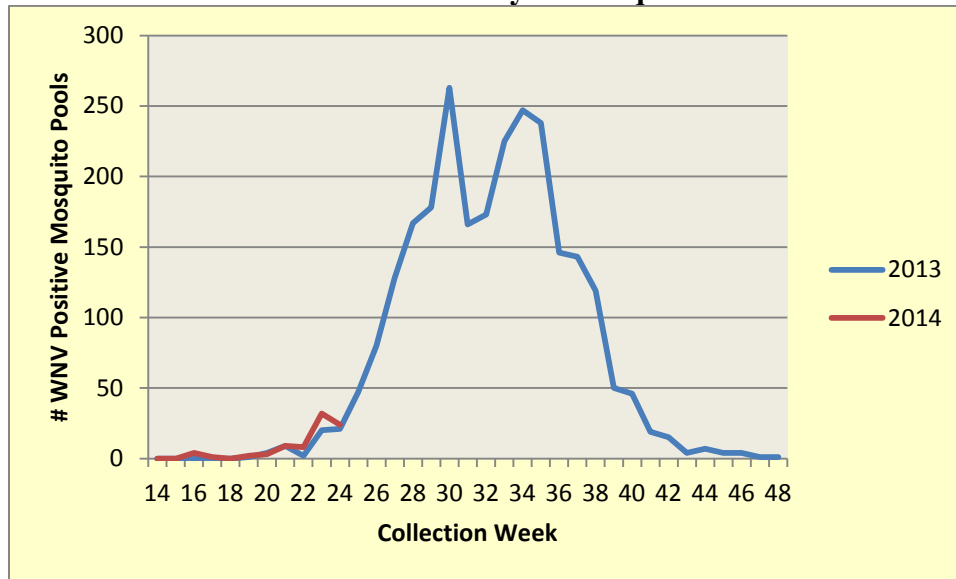
California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014

Mosquito Pools

This week, 46 WNV positive mosquito pools were reported from the following 11 counties: Fresno (4), Los Angeles (1), Orange (3), Placer (1), Sacramento (13), San Joaquin (13), Santa Clara (3), Solano (2), Stanislaus (2), Tulare (3), and Yolo (1). **These are the first WNV positive mosquito pools reported from Orange, Placer, Solano, and Yolo counties this year.** In 2014, 83 mosquito pools from 14 counties have tested positive for WNV. At this time last year, 39 WNV positive mosquito pools had been reported from eight counties.

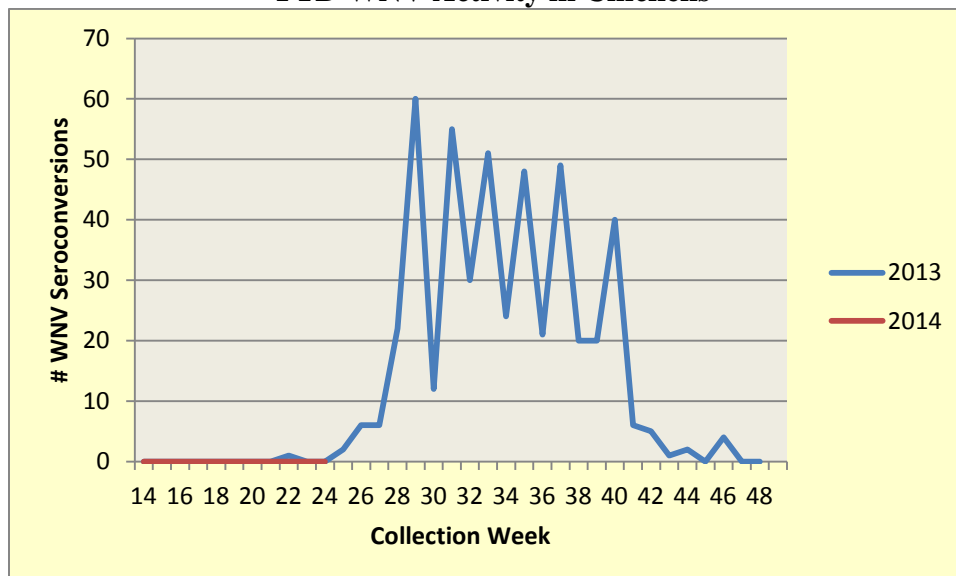
YTD WNV Activity in Mosquitoes



Sentinel Chickens

No seroconversions were reported this week. To date this year, one WNV positive chicken has been reported from Los Angeles County. At this time last year, one WNV seroconversion had been reported from Los Angeles County.

YTD WNV Activity in Chickens



California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014

YTD Activity by Element and County, 2014				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Contra Costa		4		
Fresno		1	5	
Lake		3	2	
Los Angeles		2	2	1
Madera		2		
Orange		8	3	
Placer		1	1	
Sacramento		12	15	
San Bernardino			7	
San Joaquin		1	16	
San Mateo		1		
Santa Clara		84	7	
Solano		4	2	
Sonoma			2	
Stanislaus		3	3	
Tulare		17	17	
Yolo		1	1	
Totals	0	144	83	1

TESTING SUMMARIES

Humans

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	0	0	0	0	0	0
	YTD	0	0	0	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	159	70
	YTD	660	144

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	463	0	0	0
	YTD	4,358	1	0	0
Mosquito Pools	Week	1,241	46	0	0
	YTD	6,277	83	0	0

California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014

2013 & 2014 YTD West Nile Virus Comparisons		
	2013	2014
Total # Dead Bird Reports	4,311	3,376
# Positive Counties	14	17
# Human Cases	1	0
# Positive Dead Birds / # Tested	17 / 816	144 / 660
# Positive Mosquito Pools / # Tested	39 / 10,065	83 / 6,277
# Seroconversions / # Tested	1 / 5,005	1 / 4,358

NEW POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Method
Contra Costa	Contra Costa MVCD	Oakley	94561	American Crow	6/12/2014	WNV	RAMP
Contra Costa	Contra Costa MVCD	San Ramon	94583	American Crow	6/9/2014	WNV	RAMP
Madera	Madera Co MVCD	Madera	93638	American Crow	5/28/2014	WNV	RT-PCR
Madera	Madera Co MVCD	Madera	93638	American Crow	5/28/2014	WNV	RT-PCR
Orange	Orange Co VCD	Huntington Beach	92708	American Crow	6/2/2014	WNV	RT-PCR
Orange	Orange Co VCD	Garden Grove	92840	American Crow	6/3/2014	WNV	RT-PCR
Orange	Orange Co VCD	Garden Grove	92841	Northern Mockingbird	5/30/2014	WNV	RT-PCR
Placer	Placer MVCD	Lincoln	95648	American Crow	6/9/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Scrub-Jay	6/10/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Citrus Heights	95621	Western Scrub-Jay	6/10/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	American Crow	6/4/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	American Crow	6/4/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	American Crow	6/11/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95757	American Crow	6/12/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95823	American Crow	6/4/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95823	Western Scrub-Jay	6/9/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95823	American Crow	6/12/2014	WNV	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95832	American Crow	6/10/2014	WNV	RT-PCR
San Mateo	San Mateo Co MAD	San Carlos	94070	American Crow	6/4/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Los Altos	94024	American Crow	6/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94086	Western Scrub-Jay	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/3/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	Common Raven	6/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/9/2014	WNV	RT-PCR

California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014

Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/11/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/11/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/12/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Campbell	95008	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Campbell	95008	American Crow	6/11/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Cupertino	95015	American Crow	6/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Santa Clara	95051	American Crow	6/10/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Santa Clara	95051	American Crow	6/10/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	6/4/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	6/4/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	6/12/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	6/12/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95124	American Crow	6/10/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95124	American Crow	6/10/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95124	American Crow	6/12/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/4/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	5/30/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	6/9/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95129	American Crow	6/12/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95129	American Crow	6/11/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95130	American Crow	6/10/2014	WNV	RT-PCR
Solano	Solano Co MAD	Vacaville	95687	American Crow	6/9/2014	WNV	RAMP
Tulare	Delta VCD	Visalia	93277	American Crow	6/5/2014	WNV	RT-PCR
Tulare	Delta VCD	Visalia	93277	American Crow	6/4/2014	WNV	RT-PCR
Tulare	Delta VCD	Visalia	93277	Western Scrub-Jay	6/6/2014	WNV	RT-PCR
Tulare	Delta VCD	Visalia	93277	American Crow	6/8/2014	WNV	RT-PCR
Tulare	Delta VCD	Visalia	93277	American Crow	6/6/2014	WNV	RT-PCR
Tulare	Delta VCD	Visalia	93292	American Crow	6/8/2014	WNV	RT-PCR
Yolo	Sacramento-Yolo MVCD	Davis	95616	American Crow	6/11/2014	WNV	RT-PCR

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap	Collected	Virus	Method
Fresno	CNSL1034	18	Cx. quinquefasciatus	Fresno	50	GRVD	6/5/2014	WNV	RTPCR
Fresno	CNSL1751	17	Cx. quinquefasciatus	Fresno	34	GRVD	6/5/2014	WNV	RTPCR
Fresno	CNSL1816	20	Cx. quinquefasciatus	Fresno	50	GRVD	6/6/2014	WNV	RTPCR
Fresno	CNSL2019	26	Cx. quinquefasciatus	Clovis	23	GRVD	6/10/2014	WNV	RTPCR
Los Angeles	GRLA2574	5242	Cx. quinquefasciatus	Sherman Oaks	50	GRVD	6/5/2014	WNV	RTPCR
Orange	ORCO0029	320	Cx. quinquefasciatus	Santa Ana	50	CO2	6/5/2014	WNV	RTPCR
Orange	ORCO0029	321	Cx. quinquefasciatus	Santa Ana	50	CO2	6/5/2014	WNV	RTPCR
Orange	ORCO0206	324	Cx. quinquefasciatus		28	CO2	6/5/2014	WNV	RTPCR
Placer	PLCR0139	439	Cx. tarsalis	Roseville	49	CO2	6/10/2014	WNV	RTPCR
Sacramento	SAYO222046	1105	Cx. tarsalis	Sacramento	1	CO2	6/6/2014	WNV	RTPCR

California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014

Sacramento	SAYO222046	1106	Cx. pipiens	Sacramento	6	CO2	6/6/2014	WNV	RTPCR
Sacramento	SAYO223052	1091	Cx. tarsalis	Sacramento	2	GRVD	6/6/2014	WNV	RTPCR
Sacramento	SAYO223052	1092	Cx. pipiens	Sacramento	31	CO2	6/6/2014	WNV	RTPCR
Sacramento	SAYO223052	1093	Cx. pipiens	Sacramento	38	GRVD	6/6/2014	WNV	RTPCR
Sacramento	SAYO232035	1086	Cx. pipiens	Sacramento	6	CO2	6/6/2014	WNV	RTPCR
Sacramento	SAYO232035	1087	Cx. pipiens	Sacramento	3	GRVD	6/6/2014	WNV	RTPCR
Sacramento	SAYO233016	1101	Cx. tarsalis	Sacramento	25	CO2	6/6/2014	WNV	RTPCR
Sacramento	SAYO233016	1102	Cx. pipiens	Sacramento	50	CO2	6/6/2014	WNV	RTPCR
Sacramento	SAYO233016	1104	Cx. pipiens	Sacramento	14	GRVD	6/6/2014	WNV	RTPCR
Sacramento	SAYO233019	1111	Cx. tarsalis	Florin	2	CO2	6/6/2014	WNV	RTPCR
Sacramento	SAYO261003	1291	Cx. tarsalis	Isleton	50	CO2	6/10/2014	WNV	RTPCR
Sacramento	SAYO261003	1292	Cx. tarsalis	Isleton	49	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM7022	449	Cx. pipiens	Stockton	25	GRVD	6/10/2014	WNV	RTPCR
San Joaquin	SJCM7025	430	Cx. pipiens	Tracy	32	GRVD	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8008	516	Cx. tarsalis	Manteca	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	454	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	455	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	456	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	458	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	459	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	460	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	461	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	462	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8018	463	Cx. tarsalis	Stockton	50	CO2	6/10/2014	WNV	RTPCR
San Joaquin	SJCM8027	412	Cx. pipiens	McDonald Isl. bridge	14	CO2	6/10/2014	WNV	RTPCR
Santa Clara	STCL2711	5187	Cx. pipiens	Sunnyvale	25	CO2	6/4/2014	WNV	RTPCR
Santa Clara	STCL2920	5221	Cx. pipiens	San Jose	25	CO2	6/10/2014	WNV	RTPCR
Santa Clara	STCL2928	5222	Cx. pipiens	San Jose	6	CO2	6/10/2014	WNV	RTPCR
Solano	SOLA0006	3	Cx. tarsalis	Dixon	9	CO2	6/5/2014	WNV	RTPCR
Solano	SOLA0011	1	Cx. pipiens	Dixon	12	CO2	6/5/2014	WNV	RTPCR
Stanislaus	EAST1098	14056	Cx. tarsalis	Valley Home	50	CO2	6/11/2014	WNV	RTPCR
Stanislaus	TRLK0407	97	Cx. pipiens	Turlock	50	CO2	6/10/2014	WNV	RTPCR
Tulare	DLTA8528	188	Cx. quinquefasciatus	Visalia	46	GRVD	6/5/2014	WNV	RTPCR
Tulare	DLTA8529	219	Cx. quinquefasciatus	Visalia	14	GRVD	6/11/2014	WNV	RTPCR
Tulare	DLTA8532	218	Cx. quinquefasciatus	Visalia	28	GRVD	6/11/2014	WNV	RTPCR
Yolo	SAYO135016	1382	Cx. tarsalis	Woodland	5	GRVD	6/12/2014	WNV	RTPCR

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.

Dead Birds

Oral swab samples from corvids are collected onto RNase cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by the singleplex RT-PCR Taqman assay and confirmed with a second primer set.

California Arbovirus Surveillance Bulletin #17

Week 24 Friday, June 13, 2014

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.

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.