

California Arbovirus Surveillance Bulletin #18

Week 26 Thursday, July 2, 2015



Weekly Update

Humans

No human infections have been reported in 2015. At this time last year, two human cases of West Nile virus (WNV) had been reported from two counties (Contra Costa and Tulare).

Dead Birds

A total of 11 WNV positive dead birds were reported this week from the following 7 counties: Kings (1), Riverside (1), San Diego (2), Santa Clara (1), Sutter (1), Tulare (4), and Yuba (1). **This is the first WNV positive dead bird from Kings County this year.** In 2015, 112 birds have tested positive for WNV from 24 counties. At this time last year, 324 WNV positive birds had been detected in 19 counties.

Mosquito Pools

A total of 60 WNV positive mosquito pools were reported this week from the following 11 counties: Butte (2), Fresno (1), Kings (1), Los Angeles (1), Placer (5), Riverside (1), Sacramento (5), San Joaquin (25), Sutter (5), Tulare (10), and Yuba (4). **These are the first WNV positive mosquito pools detected in Placer and Sutter counties this year.** In 2015, 240 WNV positive mosquito pools have been reported from 20 counties. At this time last year, 234 WNV positive mosquito pools had been detected from 20 counties.

Sentinel Chickens

No new seroconversions were reported this week. In 2015, three WNV positive chickens have been reported from two counties. At this time last year, one WNV seroconversion had been reported from one county (Los Angeles).

2014 & 2015 YTD West Nile Virus Comparisons		
	2014	2015
Total # Dead Bird Reports	4,490	4,759
# Positive Counties	21	31
# Human Cases	2	0
# Positive Dead Birds / # Tested	324 / 941	112 / 1,081
# Positive Mosquito Pools / # Tested	234 / 8,259	240 / 11,544
# Seroconversions / # Tested	1 / 5,465	3 / 5,017

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

California Arbovirus Surveillance Bulletin #18

Week 26 Thursday, July 2, 2015

YTD Activity by Element and County, 2015				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda		2		
Butte		1	3	
Contra Costa			2	
El Dorado		1		
Fresno			4	
Glenn		1		
Kern			7	
Kings		1	7	
Los Angeles		2	3	
Madera		1		
Marin		1		
Merced			1	
Orange		1	3	
Placer			5	2
Riverside		5	57	
Sacramento		5	6	
San Bernardino			1	
San Diego		35	3	
San Joaquin		1	28	
San Mateo		3		
Santa Barbara			1	
Santa Clara		22		
Shasta		2	1	1
Solano		1		
Sonoma		2		
Stanislaus		4		
Sutter		3	5	
Tulare		12	93	
Ventura		1		
Yolo		3	3	
Yuba		2	7	
Totals	0	112	240	3

California Arbovirus Surveillance Bulletin #18

Week 26 Thursday, July 2, 2015

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	54	11
	YTD	1,081	112

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	411	0	0	0
	YTD	5,017	3	0	0
Mosquito Pools	Week	1,186	60	0	0
	YTD	11,544	240	0	0

NEW POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus
Kings	Kings MAD	Hanford	93230	Sparrow	6/19/2015	WNV
Riverside	Northwest Mosquito VCD	Norco	92860	American Crow	6/19/2015	WNV
San Diego	San Diego Co VCP	Rancho Santa Fe	92067	American Crow	6/25/2015	WNV
San Diego	San Diego Co VCP	Spring Valley	91977	American Crow	6/25/2015	WNV
Santa Clara	Santa Clara Co VCD	Los Altos	94024	American Crow	6/24/2015	WNV
Sutter	Sutter-Yuba MVCD	Yuba City	95993	American Crow	6/28/2015	WNV
Tulare	Delta VCD	Visalia	93277	Common Raven	6/29/2015	WNV
Tulare	Delta VCD	Visalia	93277	American Crow	6/29/2015	WNV
Tulare	Delta VCD	Visalia	93277	American Crow	6/29/2015	WNV
Tulare	Delta VCD	Visalia	93277	Western Scrub-Jay	7/1/2015	WNV
Yuba	Sutter-Yuba MVCD	Marysville	95901	Sparrow	6/24/2015	WNV

California Arbovirus Surveillance Bulletin #18

Week 26 Thursday, July 2, 2015

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO30	113	Cx. tarsalis	Chico	50	CO2	6/30/2015	WNV
Butte	BUCO43	117	Cx. tarsalis	Chico	50	CO2	6/30/2015	WNV
Fresno	CNSL6107	326	Cx. quinquefasciatus	Riverdale	50	GRVD	6/24/2015	WNV
Kings	KNGS4405	154	Cx. pipiens	Lemoore	16	BGSENT	6/25/2015	WNV
Los Angeles	GRLA3038	5421	Cx. quinquefasciatus	Valley Village	50	GRVD	6/24/2015	WNV
Placer	PLCR155	627	Cx. tarsalis	Sheridan	50	CO2	6/30/2015	WNV
Placer	PLCR155	628	Cx. tarsalis	Sheridan	38	CO2	6/30/2015	WNV
Placer	PLCR17	633	Cx. tarsalis	Sheridan	50	CO2	6/30/2015	WNV
Placer	PLCR25	624	Cx. tarsalis	Lincoln	50	CO2	6/30/2015	WNV
Placer	PLCR668	561	Cx. tarsalis	Elverta	50	CO2	6/30/2015	WNV
Riverside	COAV418	1931	Cx. quinquefasciatus	Indian Wells	5	CO2	6/30/2015	WNV
Sacramento	SAYO202006	1673	Cx. tarsalis	Sacramento	50	CO2	6/30/2015	WNV
Sacramento	SAYO204020	1661	Cx. pipiens	Sacramento	28	GRVD	6/30/2015	WNV
Sacramento	SAYO232007	1563	Cx. pipiens	Elk Grove	8	GRVD	6/30/2015	WNV
Sacramento	SAYO232012	1569	Cx. pipiens	Elk Grove	35	GRVD	6/30/2015	WNV
Sacramento	SAYO232031	1566	Cx. pipiens	Elk Grove	9	GRVD	6/30/2015	WNV
San Joaquin	SJCM7023	916	Cx. tarsalis	Stockton	1	GRVD	6/30/2015	WNV
San Joaquin	SJCM8005	881	Cx. tarsalis	Stockton	13	CO2	6/30/2015	WNV
San Joaquin	SJCM8011	861	Cx. pipiens	Ripon	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8011	866	Cx. pipiens	Ripon	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8026	966	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8026	967	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8026	968	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8026	969	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8026	970	Cx. tarsalis	Stockton	6	CO2	6/30/2015	WNV
San Joaquin	SJCM8026	971	Cx. pipiens	Stockton	7	CO2	6/30/2015	WNV
San Joaquin	SJCM8027	894	Cx. tarsalis	McDonald Isl. bridge	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8027	895	Cx. tarsalis	McDonald Isl. bridge	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8027	897	Cx. pipiens	McDonald Isl. bridge	34	CO2	6/30/2015	WNV
San Joaquin	SJCM8029	875	Cx. pipiens	Farmington	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8056	906	Cx. tarsalis	Manteca	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8079	853	Cx. pipiens	Manteca	38	CO2	6/30/2015	WNV
San Joaquin	SJCM8106	855	Cx. tarsalis	Escalon	48	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	953	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	954	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	955	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	956	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	958	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	960	Cx. tarsalis	Stockton	50	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	961	Cx. tarsalis	Stockton	34	CO2	6/30/2015	WNV
San Joaquin	SJCM8143	962	Cx. pipiens	Stockton	34	CO2	6/30/2015	WNV
Sutter	SUYA107	110	Cx. tarsalis	Live Oak	26	REST	6/29/2015	WNV
Sutter	SUYA30	105	Cx. tarsalis	Live Oak	50	REST	6/29/2015	WNV
Sutter	SUYA30	106	Cx. tarsalis	Live Oak	38	REST	6/29/2015	WNV
Sutter	SUYA31	112	Cx. tarsalis	Rio Oso	50	REST	6/29/2015	WNV
Sutter	SUYA84	125	Cx. tarsalis	Yuba City	50	CO2	6/29/2015	WNV
Tulare	DLTA7730	462	Cx. quinquefasciatus	Woodlake	32	GRVD	6/30/2015	WNV

California Arbovirus Surveillance Bulletin #18

Week 26 Thursday, July 2, 2015

Tulare	DLTA7730	466	Cx. quinquefasciatus	Woodlake	20	GRVD	6/30/2015	WNV
Tulare	DLTA8435	489	Cx. quinquefasciatus	Visalia	16	GRVD	6/30/2015	WNV
Tulare	DLTA8532	482	Cx. quinquefasciatus	Visalia	35	GRVD	6/30/2015	WNV
Tulare	DLTA8533	483	Cx. quinquefasciatus	Visalia	43	GRVD	6/30/2015	WNV
Tulare	DLTA8534	484	Cx. quinquefasciatus	Visalia	31	GRVD	6/30/2015	WNV
Tulare	DLTA9412	490	Cx. quinquefasciatus	Visalia	26	GRVD	6/30/2015	WNV
Tulare	DLTA9505	486	Cx. quinquefasciatus	Visalia	14	GRVD	6/30/2015	WNV
Tulare	DLTA9506	487	Cx. quinquefasciatus	Visalia	50	GRVD	6/30/2015	WNV
Tulare	DLTA9506	488	Cx. quinquefasciatus	Visalia	16	GRVD	6/30/2015	WNV
Yuba	SUYA8	137	Cx. tarsalis	Marysville	50	CO2	6/29/2015	WNV
Yuba	SUYA8	138	Cx. tarsalis	Marysville	50	CO2	6/29/2015	WNV
Yuba	SUYA8	139	Cx. tarsalis	Marysville	50	CO2	6/29/2015	WNV
Yuba	SUYA97	114	Cx. tarsalis	Marysville	13	REST	6/29/2015	WNV

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 RNA preservation 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. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

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, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory 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.