

California Arbovirus Surveillance Bulletin #15

Week 28 Friday, July 14, 2017



Weekly Update

Humans

One human case of West Nile virus (WNV) illness was reported this week from San Bernardino County. To date this year, four cases of WNV illness have been reported from four counties. Of the four case-patients, one (25%) had neuroinvasive disease; no fatalities have been reported. The median age of the individuals is 41 years (range: 4–79 years) and three (75%) are male. Dates of symptom onset ranged from March 16 to June 4. In addition to the four cases, one asymptomatic WNV-positive blood donor has been reported from Orange County. As of this date in 2016, no human WNV cases had been reported.

Dead Birds

A total of 20 WNV positive dead birds were reported this week from nine counties: Fresno (1), Kern (2), Los Angeles (3), Riverside (3), Sacramento (2), San Bernardino (6), San Diego (1), Santa Cruz (1), and Tulare (1). **This is the first detection of WNV activity in Santa Cruz County in 2017.** To date this year, 71 birds from 14 counties have tested positive for WNV. As of this date in 2016, 547 WNV positive birds had been reported from 23 counties.

Mosquito Pools

West Nile Virus

A total of 191 WNV positive mosquito pools were reported this week from the following 16 counties: Butte (1), Fresno (8), Kern (24), Lake (5), Los Angeles (9), Orange (1), Placer (1), Riverside (6), Sacramento (4), San Diego (1), San Joaquin (25), Stanislaus (19), Sutter (1), Tulare (83), Yolo (2), and Yuba (1). **This is the first detection of WNV activity in Butte, Placer, and Sutter counties in 2017.** To date this year, 681 WNV positive mosquito pools have been reported from 19 counties. As of this date in 2016, 896 WNV positive mosquito pools had been reported from 26 counties.

St. Louis Encephalitis Virus

A total of two mosquito pools tested positive for St. Louis encephalitis virus (SLEV) this week from two counties: Fresno (1) and Kern (1). To date this year, seven SLEV positive mosquito pools have been reported from Fresno (3) and Kern (4) counties. As of this date in 2016, 36 SLEV positive mosquito pools had been reported from 2 counties.

Sentinel Chickens

A total of 15 WNV seroconversions were reported this week from two counties: Los Angeles (8) and San Bernardino (7). These are the first WNV positive chickens reported from San Bernardino County in 2017. To date this year, 17 WNV seroconversions have been reported from two counties. As of this date in 2016, 19 WNV seroconversions had been reported from four counties.

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2016 & 2017 YTD West Nile Virus Comparisons		
	2016	2017
Total # Dead Bird Reports	5,016	3,885
# Positive Counties	30	22
# Human Cases	0	4
# Positive Dead Birds / # Tested	547 / 1,417	71 / 966
# Positive Mosquito Pools / # Tested	896 / 20,884	681 / 20,041
# Seroconversions / # Tested	19 / 4,402	17 / 5,043

YTD WNV Activity by Element and County, 2017				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Butte			1	
Fresno		1	12	
Kern	1	3	63	
Kings	1		5	
Lake		1	5	
Los Angeles	1	9	53	10
Merced			2	
Nevada		1		
Orange		6	7	
Placer			1	
Riverside		6	78	
Sacramento		19	6	
San Bernardino	1	11	43	7
San Diego		4	2	
San Joaquin		2	60	
San Mateo		1		
Santa Cruz		1		
Stanislaus			30	
Sutter			1	
Tulare		6	307	
Yolo			3	
Yuba			2	
Totals	4	71	681	17

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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TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	1	0	0
	YTD	4	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	74	20
	YTD	966	71

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	391	15	0	0
	YTD	5,043	17	0	0

Mosquitoes

		Positive / Total Tested						
Mosquito Pools	Week	WNV	SLEV	WEEV	CHIK	DENV	ZIKA	
		Week	191 / 1,796	2 / 1,166	0 / 1,167	0 / 55	0 / 55	0 / 55
		YTD	681 / 20,041	7 / 17,018	0 / 15,551	0 / 588	0 / 588	0 / 588

New Positives

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Fresno	Fresno MVCD	Fresno	93704	Western Scrub-Jay	7/6/2017	WNV
Kern	Kern MVCD	Bakersfield	93309	American Crow	7/7/2017	WNV
Kern	Kern MVCD	Bakersfield	93312	American Crow	7/4/2017	WNV
Los Angeles	Antelope Valley MVCD	Juniper Hills	93543	Finch	6/21/2017	WNV
Los Angeles	Los Angeles Co Veterinarian	Glassel Park	90065	Hawk	7/3/2017	WNV
Los Angeles	Los Angeles Co Veterinarian	Tarzana	91356	American Crow	7/6/2017	WNV
Riverside	Northwest Mosquito VCD	Corona	92880	American Crow	6/29/2017	WNV
Riverside	Northwest Mosquito VCD	Corona	92882	California Thrasher	7/3/2017	WNV
Riverside	Northwest Mosquito VCD	Corona	92883	American Crow	7/3/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Galt	95632	Western Scrub-Jay	7/10/2017	WNV

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Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	American Crow	7/13/2017	WNV
San Bernardino	San Bernardino Vector Control Program	Fontana	92335	Western Scrub-Jay	6/30/2017	WNV
San Bernardino	West Valley MVCD	Chino Hills	91709	American Crow	6/30/2017	WNV
San Bernardino	West Valley MVCD	Chino Hills	91709	American Crow	6/30/2017	WNV
San Bernardino	West Valley MVCD	Chino Hills	91709	Red-tailed Hawk	7/6/2017	WNV
San Bernardino	West Valley MVCD	Ontario	91762	Unknown	7/5/2017	WNV
San Bernardino	West Valley MVCD	Rancho Cucamonga	91730	Unknown	7/5/2017	WNV
San Diego	San Diego Co VCP	San Diego	92119	American Crow	7/7/2017	WNV
Santa Cruz	Santa Cruz MVCD	Santa Cruz	95062	American Crow	7/6/2017	WNV
Tulare	Delta VCD	Visalia	93291	American Crow	7/3/2017	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO37	106	Cx. tarsalis	Honcut	50	CO2	7/5/2017	WNV
Fresno	CNSL1499	197	Cx. quinquefasciatus	Fresno	38	GRVD	7/11/2017	WNV
Fresno	CNSL1695	200	Cx. quinquefasciatus	Fresno	12	GRVD	7/11/2017	WNV
Fresno	CNSL3124	172	Cx. stigmatosoma	Dinuba	21	GRVD	7/6/2017	WNV
Fresno	FRNO15	198	Cx. quinquefasciatus	Fresno	34	BGSENT	7/6/2017	WNV
Fresno	FRNO85	189	Cx. quinquefasciatus	Fresno	31	GRVD	7/6/2017	WNV
Fresno	FRNO95	193	Cx. quinquefasciatus		50	CO2	7/6/2017	WNV
Fresno	FRNO95	194	Cx. quinquefasciatus		22	CO2	7/6/2017	WNV
Fresno	FRWS400027	201	Cx. quinquefasciatus		50	CO2	7/7/2017	WNV
Kern	DLNO4	144	Cx. quinquefasciatus	Delano	37	GRVD	7/7/2017	WNV
Kern	KERN1160	395	Cx. tarsalis	Shafter	22	CO2	7/7/2017	WNV
Kern	KERN117	401	Cx. quinquefasciatus	Bakersfield	50	CO2	7/7/2017	WNV
Kern	KERN2040	389	Cx. quinquefasciatus	Arvin	37	GRVD	7/5/2017	WNV
Kern	KERN3014	399	Cx. quinquefasciatus	Bakersfield	50	CO2	7/7/2017	WNV
Kern	KERN46	397	Cx. tarsalis	Wasco	28	CO2	7/7/2017	WNV
Kern	KERN7	396	Cx. quinquefasciatus	Famoso	35	CO2	7/7/2017	WNV
Kern	WEST6206	1	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	2	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	3	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	5	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	6	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	7	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	8	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	9	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	10	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	11	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	12	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	13	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	SLEV
Kern	WEST6206	13	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	14	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	15	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	16	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	17	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kern	WEST6206	18	Cx. tarsalis	Bakersfield	50	CO2	7/12/2017	WNV
Kings	CNSL5107	175	Cx. quinquefasciatus	Kingsburg	42	GRVD	7/6/2017	SLEV
Lake	LAKE225	102	Cx. pipiens	Lower Lake	1	CO2	7/6/2017	WNV
Lake	LAKE226	101	Cx. tarsalis	Lower Lake	39	CO2	7/6/2017	WNV

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Lake	LAKE408	103	Cx. tarsalis	Lower Lake	34	CO2	7/6/2017	WNV
Lake	LAKE422	104	Cx. tarsalis	Lower Lake	50	CO2	7/6/2017	WNV
Lake	LAKE422	105	Cx. tarsalis	Lower Lake	40	CO2	7/6/2017	WNV
Los Angeles	GRLA2101	430	Cx. quinquefasciatus	Santa Fe Springs	50	GRVD	7/7/2017	WNV
Los Angeles	GRLA2890	428	Cx. quinquefasciatus	Lakewood	50	GRVD	7/6/2017	WNV
Los Angeles	GRLA2955	434	Cx. quinquefasciatus	Cerritos	50	GRVD	7/7/2017	WNV
Los Angeles	GRLA3040	432	Cx. quinquefasciatus	La Mirada	50	GRVD	7/7/2017	WNV
Los Angeles	SGVA7	1670	Cx. quinquefasciatus	Claremont	25	GRVD	7/6/2017	WNV
Los Angeles	SGVA7	1675	Cx. quinquefasciatus	Claremont	9	GRVD	7/6/2017	WNV
Los Angeles	SGVA7	1678	Cx. quinquefasciatus	Claremont	25	CO2	7/6/2017	WNV
Los Angeles	SGVA8	1687	Cx. tarsalis	Pomona	2	GRVD	7/6/2017	WNV
Los Angeles	SGVA915	1668	Cx. quinquefasciatus	San Dimas	25	GRVD	7/6/2017	WNV
Orange	ORCO244	2466	Cx. quinquefasciatus	Garden Grove	50	GRVD	7/7/2017	WNV
Placer	PLCR1113	722	Cx. tarsalis	Pleasant Grove	50	CO2	7/11/2017	WNV
Riverside	COAV200	2870	Cx. tarsalis	Mecca	50	BGSENT	7/12/2017	WNV
Riverside	COAV45	2872	Cx. tarsalis	Mecca	8	CO2	7/12/2017	WNV
Riverside	COAV46	2875	Cx. tarsalis	Mecca	3	CO2	7/12/2017	WNV
Riverside	NWST190	127	Cx. quinquefasciatus	Eastvale	50	CO2	6/28/2017	WNV
Riverside	NWST26	134	Cx. tarsalis	Corona	28	CO2	6/28/2017	WNV
Riverside	NWST6876	131	Cx. tarsalis	Corona	50	CO2	6/28/2017	WNV
Sacramento	SAYO212021	2738	Cx. pipiens	Sacramento	22	CO2	7/11/2017	WNV
Sacramento	SAYO223006	2685	Cx. tarsalis	South Watt Avenue	14	CO2	7/11/2017	WNV
Sacramento	SAYO254007	2844	Cx. tarsalis	Galt	10	CO2	7/13/2017	WNV
Sacramento	SAYO261003	2834	Cx. tarsalis	Isleton	50	CO2	7/13/2017	WNV
San Diego	SAND12240	1379	Cx. quinquefasciatus	LA MESA	8	GRVD	6/30/2017	WNV
San Joaquin	SJCM8008	1551	Cx. tarsalis	Manteca	35	CO2	7/5/2017	WNV
San Joaquin	SJCM8010	1644	Cx. tarsalis	Ripon	50	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1567	Cx. tarsalis	Stockton	100	CO2	7/5/2017	WNV
San Joaquin	SJCM8018	1569	Cx. tarsalis	Stockton	100	CO2	7/5/2017	WNV
San Joaquin	SJCM8018	1575	Cx. tarsalis	Stockton	100	CO2	7/5/2017	WNV
San Joaquin	SJCM8018	1579	Cx. tarsalis	Stockton	100	CO2	7/5/2017	WNV
San Joaquin	SJCM8018	1675	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1676	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1677	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1678	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1679	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1680	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1681	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1682	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1683	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1684	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1685	Cx. tarsalis	Stockton	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8018	1686	Cx. tarsalis	Stockton	118	CO2	7/11/2017	WNV
San Joaquin	SJCM8022	1561	Cx. tarsalis	Holt	54	CO2	7/5/2017	WNV
San Joaquin	SJCM8094	1698	Cx. tarsalis	Manteca	50	CO2	7/11/2017	WNV
San Joaquin	SJCM8185	1537	Cx. pipiens	Manteca	40	CO2	7/6/2017	WNV
San Joaquin	SJCM8199	1694	Cx. tarsalis	Manteca	100	CO2	7/11/2017	WNV
San Joaquin	SJCM8206	1623	Cx. tarsalis	Lodi	50	CO2	7/5/2017	WNV
San Joaquin	SJCM8206	1624	Cx. tarsalis	Lodi	50	CO2	7/5/2017	WNV
San Joaquin	SJCM8218	1731	Cx. tarsalis	Escalon	36	CO2	7/12/2017	WNV
Stanislaus	TRLK1209	473	Cx. tarsalis	Ceres	50	CO2	7/11/2017	WNV
Stanislaus	TRLK1303	454	Cx. tarsalis	Patterson	43	CO2	7/6/2017	WNV
Stanislaus	TRLK1304	455	Cx. tarsalis	Patterson	21	CO2	7/6/2017	WNV
Stanislaus	TRLK1673	462	Cx. tarsalis	Patterson	50	CO2	7/6/2017	WNV

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Stanislaus	TRLK1673	464	Cx. tarsalis	Patterson	22	CO2	7/6/2017	WNV
Stanislaus	TRLK2	438	Cx. tarsalis	Vernalis	50	CO2	7/6/2017	WNV
Stanislaus	TRLK305	424	Cx. tarsalis	Grayson	50	CO2	7/6/2017	WNV
Stanislaus	TRLK322	440	Cx. tarsalis	Vernalis	50	CO2	7/6/2017	WNV
Stanislaus	TRLK322	441	Cx. tarsalis	Vernalis	50	CO2	7/6/2017	WNV
Stanislaus	TRLK322	442	Cx. tarsalis	Vernalis	50	CO2	7/6/2017	WNV
Stanislaus	TRLK322	443	Cx. tarsalis	Vernalis	50	CO2	7/6/2017	WNV
Stanislaus	TRLK322	444	Cx. tarsalis	Vernalis	50	CO2	7/6/2017	WNV
Stanislaus	TRLK410	474	Cx. pipiens	Ceres	10	CO2	7/11/2017	WNV
Stanislaus	TRLK424	458	Cx. tarsalis	Patterson	50	CO2	7/6/2017	WNV
Stanislaus	TRLK424	459	Cx. tarsalis	Patterson	50	CO2	7/6/2017	WNV
Stanislaus	TRLK432	486	Cx. pipiens	Turlock	50	CO2	7/11/2017	WNV
Stanislaus	TRLK437	456	Cx. tarsalis	Patterson	50	CO2	7/6/2017	WNV
Stanislaus	TRLK516	501	Cx. pipiens	Denair	44	CO2	7/11/2017	WNV
Stanislaus	TRLK9768	420	Cx. tarsalis	Modesto	20	CO2	7/6/2017	WNV
Sutter	SUYA27	138	Cx. tarsalis	Tierra Buena	9	CO2	7/10/2017	WNV
Tulare	DLNO76	153	Cx. quinquefasciatus	Richgrove	50	GRVD	7/11/2017	WNV
Tulare	DLTA6326	1643	Cx. quinquefasciatus	Delft Colony	34	CO2	7/13/2017	WNV
Tulare	DLTA6334	1640	Cx. quinquefasciatus		29	CO2	7/13/2017	WNV
Tulare	DLTA6518	1475	Cx. quinquefasciatus	Cutler	10	GRVD	7/6/2017	WNV
Tulare	DLTA8414	1587	Cx. quinquefasciatus	Visalia	16	GRVD	7/11/2017	WNV
Tulare	DLTA8422	1453	Cx. quinquefasciatus	Goshen	45	GRVD	7/6/2017	WNV
Tulare	DLTA8422	1574	Cx. quinquefasciatus	Goshen	24	GRVD	7/11/2017	WNV
Tulare	DLTA8422	1671	Cx. quinquefasciatus	Goshen	18	GRVD	7/13/2017	WNV
Tulare	DLTA8423	1536	Cx. quinquefasciatus	Visalia	50	GRVD	7/7/2017	WNV
Tulare	DLTA8424	1572	Cx. quinquefasciatus	Visalia	29	GRVD	7/11/2017	WNV
Tulare	DLTA8425	1444	Cx. quinquefasciatus	Visalia	18	GRVD	7/6/2017	WNV
Tulare	DLTA8425	1504	Cx. quinquefasciatus	Visalia	28	GRVD	7/7/2017	WNV
Tulare	DLTA8425	1588	Cx. quinquefasciatus	Visalia	11	GRVD	7/11/2017	WNV
Tulare	DLTA8426	1524	Cx. quinquefasciatus	Visalia	49	GRVD	7/7/2017	WNV
Tulare	DLTA8426	1581	Cx. quinquefasciatus	Visalia	13	GRVD	7/11/2017	WNV
Tulare	DLTA8426	1616	Cx. quinquefasciatus	Visalia	31	GRVD	7/12/2017	WNV
Tulare	DLTA8426	1674	Cx. quinquefasciatus	Visalia	12	GRVD	7/13/2017	WNV
Tulare	DLTA8427	1447	Cx. quinquefasciatus	Visalia	48	GRVD	7/6/2017	WNV
Tulare	DLTA8427	1667	Cx. quinquefasciatus	Visalia	40	GRVD	7/13/2017	WNV
Tulare	DLTA8434	1435	Cx. quinquefasciatus	Visalia	28	GRVD	7/6/2017	WNV
Tulare	DLTA8435	1438	Cx. quinquefasciatus	Visalia	30	GRVD	7/6/2017	WNV
Tulare	DLTA8435	1566	Cx. quinquefasciatus	Visalia	19	GRVD	7/11/2017	WNV
Tulare	DLTA8435	1604	Cx. quinquefasciatus	Visalia	31	GRVD	7/12/2017	WNV
Tulare	DLTA8436	1563	Cx. quinquefasciatus	Visalia	28	GRVD	7/11/2017	WNV
Tulare	DLTA8436	1601	Cx. quinquefasciatus	Visalia	38	GRVD	7/12/2017	WNV
Tulare	DLTA8507	1461	Cx. quinquefasciatus	Visalia	15	GRVD	7/6/2017	WNV
Tulare	DLTA8507	1665	Cx. quinquefasciatus	Visalia	50	GRVD	7/13/2017	WNV
Tulare	DLTA8508	1620	Cx. quinquefasciatus	Visalia	50	GRVD	7/12/2017	WNV
Tulare	DLTA8514	1622	Cx. quinquefasciatus	Visalia	18	GRVD	7/12/2017	WNV
Tulare	DLTA8519	1479	Cx. quinquefasciatus	Visalia	14	GRVD	7/6/2017	WNV
Tulare	DLTA8519	1516	Cx. quinquefasciatus	Visalia	20	GRVD	7/7/2017	WNV
Tulare	DLTA8519	1544	Cx. quinquefasciatus	Visalia	13	GRVD	7/7/2017	WNV
Tulare	DLTA8520	1477	Cx. quinquefasciatus	Visalia	29	GRVD	7/6/2017	WNV
Tulare	DLTA8520	1517	Cx. quinquefasciatus	Visalia	23	GRVD	7/7/2017	WNV
Tulare	DLTA8521	1472	Cx. quinquefasciatus	Visalia	41	GRVD	7/6/2017	WNV
Tulare	DLTA8522	1473	Cx. quinquefasciatus	Visalia	27	GRVD	7/6/2017	WNV
Tulare	DLTA8527	1464	Cx. quinquefasciatus	Visalia	44	GRVD	7/6/2017	WNV
Tulare	DLTA8527	1518	Cx. quinquefasciatus	Visalia	35	GRVD	7/7/2017	WNV

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Tulare	DLTA8527	1660	Cx. quinquefasciatus	Visalia	40	GRVD	7/13/2017	WNV
Tulare	DLTA8528	1575	Cx. quinquefasciatus	Visalia	42	GRVD	7/11/2017	WNV
Tulare	DLTA8528	1614	Cx. quinquefasciatus	Visalia	50	GRVD	7/12/2017	WNV
Tulare	DLTA8529	1519	Cx. quinquefasciatus	Visalia	42	GRVD	7/7/2017	WNV
Tulare	DLTA8530	1560	Cx. quinquefasciatus	Visalia	48	GRVD	7/11/2017	WNV
Tulare	DLTA8531	1597	Cx. quinquefasciatus	Visalia	29	GRVD	7/12/2017	WNV
Tulare	DLTA8532	1426	Cx. quinquefasciatus	Visalia	44	GRVD	7/6/2017	WNV
Tulare	DLTA8532	1431	Cx. quinquefasciatus	Visalia	22	GRVD	7/6/2017	WNV
Tulare	DLTA8532	1488	Cx. quinquefasciatus	Visalia	30	GRVD	7/7/2017	WNV
Tulare	DLTA8532	1646	Cx. quinquefasciatus	Visalia	17	GRVD	7/13/2017	WNV
Tulare	DLTA8532	1653	Cx. quinquefasciatus	Visalia	50	GRVD	7/13/2017	WNV
Tulare	DLTA8533	1441	Cx. quinquefasciatus	Visalia	24	GRVD	7/6/2017	WNV
Tulare	DLTA8533	1607	Cx. quinquefasciatus	Visalia	12	GRVD	7/12/2017	WNV
Tulare	DLTA8534	1440	Cx. quinquefasciatus	Visalia	16	GRVD	7/6/2017	WNV
Tulare	DLTA8536	1484	Cx. quinquefasciatus	Farmersville	13	GRVD	7/6/2017	WNV
Tulare	DLTA8629	1496	Cx. quinquefasciatus		50	CO2	7/7/2017	WNV
Tulare	DLTA8629	1502	Cx. tarsalis		50	CO2	7/7/2017	WNV
Tulare	DLTA8632	1548	Cx. tarsalis		32	CO2	7/11/2017	WNV
Tulare	DLTA9401	1598	Cx. quinquefasciatus	Visalia	28	GRVD	7/12/2017	WNV
Tulare	DLTA9402	1498	Cx. quinquefasciatus	Visalia	11	GRVD	7/7/2017	WNV
Tulare	DLTA9402	1567	Cx. quinquefasciatus	Visalia	29	GRVD	7/11/2017	WNV
Tulare	DLTA9403	1505	Cx. quinquefasciatus	Visalia	16	GRVD	7/7/2017	WNV
Tulare	DLTA9403	1599	Cx. quinquefasciatus	Visalia	50	GRVD	7/12/2017	WNV
Tulare	DLTA9403	1600	Cx. quinquefasciatus	Visalia	50	GRVD	7/12/2017	WNV
Tulare	DLTA9411	1603	Cx. quinquefasciatus	Visalia	46	GRVD	7/12/2017	WNV
Tulare	DLTA9412	1443	Cx. quinquefasciatus	Visalia	37	GRVD	7/6/2017	WNV
Tulare	DLTA9505	1437	Cx. quinquefasciatus	Visalia	23	GRVD	7/6/2017	WNV
Tulare	DLTA9505	1485	Cx. quinquefasciatus	Visalia	50	GRVD	7/7/2017	WNV
Tulare	DLTA9505	1555	Cx. quinquefasciatus	Visalia	36	GRVD	7/11/2017	WNV
Tulare	DLTA9505	1591	Cx. quinquefasciatus	Visalia	50	GRVD	7/12/2017	WNV
Tulare	DLTA9505	1592	Cx. quinquefasciatus	Visalia	23	GRVD	7/12/2017	WNV
Tulare	DLTA9505	1651	Cx. quinquefasciatus	Visalia	50	GRVD	7/13/2017	WNV
Tulare	DLTA9505	1652	Cx. quinquefasciatus	Visalia	41	GRVD	7/13/2017	WNV
Tulare	DLTA9506	1489	Cx. quinquefasciatus	Visalia	46	GRVD	7/7/2017	WNV
Tulare	DLTA9506	1596	Cx. quinquefasciatus	Visalia	38	GRVD	7/12/2017	WNV
Tulare	DLTA9506	1658	Cx. quinquefasciatus	Visalia	21	GRVD	7/13/2017	WNV
Tulare	DLTA9512	1612	Cx. quinquefasciatus	Farmersville	50	GRVD	7/12/2017	WNV
Tulare	DLTA9512	1613	Cx. quinquefasciatus	Farmersville	41	GRVD	7/12/2017	WNV
Tulare	DLTA9524	1644	Cx. quinquefasciatus		49	CO2	7/13/2017	WNV
Tulare	DLTA9604	1625	Cx. quinquefasciatus	Exeter	40	GRVD	7/12/2017	WNV
Tulare	DLTA9606	1470	Cx. quinquefasciatus	Farmersville	38	GRVD	7/6/2017	WNV
Tulare	DLTA9606	1509	Cx. tarsalis	Farmersville	13	CO2	7/7/2017	WNV
Tulare	DLTA9606	1510	Cx. quinquefasciatus	Farmersville	50	CO2	7/7/2017	WNV
Tulare	DLTA9606	1590	Cx. quinquefasciatus	Farmersville	15	CO2	7/12/2017	WNV
Tulare	DLTA9619	1650	Cx. quinquefasciatus	Farmersville	20	CO2	7/13/2017	WNV
Yolo	SAYO146002	2820	Cx. tarsalis	Davis	50	CO2	7/11/2017	WNV
Yolo	SAYO146002	2821	Cx. tarsalis	Davis	50	CO2	7/11/2017	WNV
Yuba	SUYA37	139	Cx. tarsalis	Marysville	37	CO2	7/10/2017	WNV

Sentinel Chickens

California Arbovirus Surveillance Bulletin #15

Week 28 Friday, July 14, 2017

County	Site Code	City	Date Bled	Virus	Band 01	Band 02	Band 03	Band 04	Band 05
Los Angeles	ANTV3247	Lancaster	7/5/2017	WNV	1022	1024			
Los Angeles	ANTV8652	Palmdale	7/5/2017	WNV	1039	1040	1075	1076	1080
Los Angeles	SGVA0014	La Verne	7/3/2017	WNV	4550				
San Bernardino	SANB0000	San Bernardino	7/5/2017	WNV	2701	2705	2707		
San Bernardino	SANB0007	Fontana	7/5/2017	WNV	2741	2742	2744	2748	

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 Arbovirus Research and Training laboratory (DART) for West Nile virus by the singleplex qRT-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 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 submitted to DART are tested for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex qRT-PCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested for chikungunya, dengue, and Zika viral RNA by a separate qRT-PCR.

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