

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020



Weekly Update

Humans

West Nile virus

A total of 12 human cases of West Nile virus (WNV) illness were reported this week from 8 counties: El Dorado (1), Kings (1), Los Angeles (5), Madera (1), Orange (1), Riverside (1), Sacramento (1), and Stanislaus (1). **These are the first human WNV cases reported from El Dorado, Kings, and Sacramento counties this year.** In 2020, a total of 58 human WNV cases have been reported from 15 counties. Of the 58 cases, 42 (72%) had neuroinvasive illness and 2 (3.4%) were fatal. The median age of the individuals was 61 years, and 37 (64%) were male. Dates of symptom onset ranged from June 16 to September 4. In addition to the 58 cases, 7 asymptomatic WNV infections have been reported from Los Angeles (2), Merced (1), Sacramento (1), San Joaquin (1), and Stanislaus (2) counties. At this time last year, 98 human WNV cases had been reported from 16 counties.

St. Louis encephalitis virus

No new cases were reported this week. In 2020, one human SLEV case has been reported from one county (Madera). At this time last year, four human SLEV cases had been reported from two counties.

Dead Birds

A total of 37 WNV positive dead birds were reported this week from 10 counties: Alameda (1), Butte (1), Contra Costa (1), Los Angeles (16), Marin (1), Orange (9), Placer (1), Sacramento (4), Tulare (1), and Yolo (2). **This is the first detection of WNV from Marin County this year.** In 2020, a total of 248 WNV positive dead birds have been reported from 18 counties. At this time last year, 139 WNV positive dead birds had been reported from 17 counties.

Mosquito Pools

West Nile virus

A total of 144 WNV positive mosquito pools were reported this week from 15 counties: Butte (1), Fresno (25), Kern (1), Los Angeles (32), Madera (5), Orange (31), Riverside (3), Sacramento (5), San Bernardino (1), San Joaquin (16), Shasta (5), Solano (3), Stanislaus (5), Tulare (7), and Yolo (4). In 2020, a total of 2,126 WNV positive mosquito pools have been reported from 27 counties. At this time last year, 3,070 WNV positive mosquito pools had been reported from 24 counties.

St. Louis encephalitis virus

A total of 36 SLEV positive mosquito pools were reported this week from 6 counties: Fresno (25), Kern (1), Madera (1), Riverside (6), Stanislaus (1), and Tulare (2). In 2020, a total of 396

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

SLEV positive mosquito pools have been reported from 9 counties: Fresno (167), Imperial (10), Kern (19), Kings (7), Madera (10), Riverside (153), San Joaquin (2), Stanislaus (1), and Tulare (27) counties. At this time last year, 305 SLEV positive mosquito pools had been reported from 12 counties.

Sentinel Chickens

A total of 21 WNV positive chickens were reported this week from 8 counties: Butte (7), Contra Costa (2), Glenn (1), Lake (2), Shasta (2), Solano (1), Tehama (2), and Tulare (4). These are the first WNV positive chickens reported from Contra Costa, Lake, Shasta, and Solano counties this year. In 2020, a total of 81 chickens have tested positive for WNV from 11 counties. At this time last year, 105 WNV positive chickens had been reported from 12 counties.

2019 & 2020 YTD West Nile Virus Comparisons		
	2019	2020
Total # Dead Bird Reports	4,504	4,433
# Positive Counties	31	32
# Human Cases	98	58
# Positive Dead Birds / # Tested	139 / 1,398	248 / 1,256
# Positive Mosquito Pools / # Tested	3,070 / 36,516	2,126 / 31,968
# Seroconversions / # Tested	105 / 7,112	81 / 5,001

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

YTD WNV Activity by Element and County, 2020					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			2		
Amador		1			
Butte	4	1	3	27	21
Contra Costa	2		15	11	2
El Dorado	1				
Fresno			5	280	
Glenn	1	1		2	2
Imperial				3	
Kern				69	
Kings	1			74	
Lake				12	2
Los Angeles	14		65	292	7
Madera	2			68	
Marin			1		
Merced	4	1	2	41	14
Napa			1	1	
Orange	3		36	210	
Placer	1		2	58	
Riverside	3	2	2	59	
Sacramento	1		79	94	
San Bernardino		1		11	
San Diego	1			2	
San Joaquin		2	2	209	
Santa Clara			5	8	
Shasta				25	2
Solano			1	8	1
Stanislaus	19	2	4	336	
Sutter	1			20	18
Tehama					3
Tulare			3	135	9
Yolo			20	69	
Yuba				2	
Totals	58	11	248	2,126	81

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

TESTING SUMMARIES

Humans

		WNV	SLEV	WEEV
Human Cases	Week	12	0	0
	YTD	58	1	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	80	37
	YTD	1,256	248

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	336	21	0	0
	YTD	5,001	81	0	0

Mosquitoes

		Positive / Total Tested						
Mosquito Pools	Week	WNV	SLEV	WEEV	CHIK	DENV	ZIKA	
		Week	144 / 1,483	36 / 1,289	0 / 1,125	0 / 92	0 / 92	0 / 92
		YTD	2,126 / 31,968	396 / 30,250	0 / 28,151	0 / 378	0 / 378	0 / 378

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Alameda	Alameda Co MAD	Livermore	94551	American Crow	9/16/2020	WNV
Butte	Butte Co MVCD	Chico	95973	American Crow	9/15/2020	WNV
Contra Costa	Contra Costa MVCD	Brentwood	94513	American Crow	9/2/2020	WNV
Los Angeles	Antelope Valley MVCD	Lancaster	93536	Falcon	9/3/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - SFS	Cerritos	90703	American Crow	9/10/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - SFS	Long Beach	90808	American Crow	9/9/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - SFS	Long Beach	90808	American Crow	9/9/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - SFS	Long Beach	90808	American Crow	9/11/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - SFS	Long Beach	90815	American Crow	9/9/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Burbank	91502	American Crow	9/14/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Chatsworth	91311	American Crow	7/30/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	North Hills	91343	American Crow	9/2/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Northridge	90326	American Crow	9/6/2020	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Sherman Oaks	91403	American Crow	8/26/2020	WNV
Los Angeles	Los Angeles Co West VCD	Hawthorne	90250	American Crow	9/14/2020	WNV
Los Angeles	Los Angeles Co West VCD	Los Angeles	90020	American Crow	9/5/2020	WNV
Los Angeles	Los Angeles Co West VCD	Los Angeles	90036	American Crow	8/31/2020	WNV
Los Angeles	Los Angeles Co West VCD	Los Angeles	90036	American Crow	9/12/2020	WNV
Los Angeles	Los Angeles Co West VCD	Los Angeles	90045	American Crow	9/4/2020	WNV
Marin	Marin-Sonoma MVCD	San Rafael	94901	American Crow	9/11/2020	WNV

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

Orange	Orange Co VCD	Anaheim	92806	American Crow	9/10/2020	WNV
Orange	Orange Co VCD	Anaheim	92806	American Crow	9/13/2020	WNV
Orange	Orange Co VCD	Anaheim	92806	American Crow	9/15/2020	WNV
Orange	Orange Co VCD	Cypress	90630	American Crow	9/15/2020	WNV
Orange	Orange Co VCD	Fullerton	92832	American Crow	9/15/2020	WNV
Orange	Orange Co VCD	Garden Grove	92840	American Crow	9/15/2020	WNV
Orange	Orange Co VCD	Huntington Beach	92647	American Crow	9/15/2020	WNV
Orange	Orange Co VCD	Orange	92868	American Crow	9/15/2020	WNV
Orange	Orange Co VCD	Placentia	92886	American Crow	9/15/2020	WNV
Placer	Placer MVCD	Lincoln	95648	California Scrub-Jay	9/16/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	American Crow	9/11/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Bluebird	9/9/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Orangevale	95662	Yellow-billed Magpie	9/12/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Rio Linda	95673	California Scrub-Jay	9/10/2020	WNV
Tulare	Delta VCD	Farmersville	93223	House Finch	9/11/2020	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95616	American Crow	9/11/2020	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95618	American Crow	9/13/2020	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO146	406	Cx. tarsalis	Palermo	50	CO2	9/15/2020	WNV
Fresno	CNSL1221	979	Cx. quinquefasciatus	Fresno	49	GRVD	9/11/2020	SLEV
Fresno	CNSL1221	979	Cx. quinquefasciatus	Fresno	49	GRVD	9/11/2020	WNV
Fresno	CNSL1224	1163	Cx. quinquefasciatus	Fresno	16	GRVD	9/9/2020	SLEV
Fresno	CNSL1270	1162	Cx. quinquefasciatus	Fresno	50	GRVD	9/9/2020	SLEV
Fresno	CNSL1270	1162	Cx. quinquefasciatus	Fresno	50	GRVD	9/9/2020	WNV
Fresno	CNSL1272	980	Cx. quinquefasciatus	Clovis	21	GRVD	9/11/2020	SLEV
Fresno	CNSL1422	967	Cx. quinquefasciatus	Fresno	50	GRVD	9/10/2020	SLEV
Fresno	CNSL1446	953	Cx. quinquefasciatus	Clovis	50	GRVD	9/9/2020	SLEV
Fresno	CNSL1758	1161	Cx. quinquefasciatus	Fresno	37	GRVD	9/9/2020	SLEV
Fresno	CNSL1866	965	Cx. quinquefasciatus	Fresno	45	GRVD	9/10/2020	SLEV
Fresno	CNSL1866	965	Cx. quinquefasciatus	Fresno	45	GRVD	9/10/2020	WNV
Fresno	CNSL2265	961	Cx. quinquefasciatus	Sanger	50	GRVD	9/10/2020	WNV
Fresno	CNSL2265	1177	Cx. quinquefasciatus	Sanger	12	GRVD	9/10/2020	SLEV
Fresno	CNSL2361	966	Cx. quinquefasciatus	Sanger	39	GRVD	9/10/2020	WNV
Fresno	CNSL2480	1183	Cx. quinquefasciatus	Sanger	50	GRVD	9/10/2020	WNV
Fresno	CNSL2504	969	Cx. quinquefasciatus	Sanger	50	GRVD	9/10/2020	WNV
Fresno	CNSL4129	970	Cx. quinquefasciatus	Selma	12	GRVD	9/11/2020	WNV
Fresno	CNSL4166	1186	Cx. quinquefasciatus	Selma	20	GRVD	9/11/2020	SLEV
Fresno	CNSL4166	1186	Cx. quinquefasciatus	Selma	20	GRVD	9/11/2020	WNV
Fresno	CNSL5043	959	Cx. quinquefasciatus	Kingsburg	50	GRVD	9/10/2020	WNV
Fresno	CNSL5105	960	Cx. quinquefasciatus	Kingsburg	50	GRVD	9/10/2020	WNV
Fresno	CNSL5177	958	Cx. quinquefasciatus	Kingsburg	37	GRVD	9/10/2020	SLEV
Fresno	CNSL5177	958	Cx. quinquefasciatus	Kingsburg	37	GRVD	9/10/2020	WNV
Fresno	CNSL6213	1165	Cx. quinquefasciatus	Laton	27	GRVD	9/9/2020	WNV
Fresno	CNSL6213	1166	Cx. tarsalis	Laton	15	BGSENT	9/9/2020	SLEV
Fresno	CNSL6291	1170	Cx. tarsalis	Caruthers	24	BGSENT	9/9/2020	SLEV
Fresno	CNSL6291	1170	Cx. tarsalis	Caruthers	24	BGSENT	9/9/2020	WNV

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

Fresno	CNSL8082	974	Cx. quinquefasciatus	Fresno	50	GRVD	9/11/2020	WNV
Fresno	CNSL8109	1189	Cx. quinquefasciatus	Clovis	26	GRVD	9/11/2020	SLEV
Fresno	CNSL9127	1193	Cx. quinquefasciatus	Clovis	44	GRVD	9/11/2020	SLEV
Fresno	CNSL9128	957	Cx. quinquefasciatus	Clovis	18	GRVD	9/9/2020	SLEV
Fresno	CNSL9128	957	Cx. quinquefasciatus	Clovis	18	GRVD	9/9/2020	WNV
Fresno	FRNO112	471	Cx. tarsalis	Fresno	9	CO2	9/3/2020	WNV
Fresno	FRNO112	478	Cx. quinquefasciatus	Fresno	23	BGSENT	9/3/2020	WNV
Fresno	FRNO116	509	Cx. quinquefasciatus	Fresno	14	GRVD	9/10/2020	SLEV
Fresno	FRNO196	465	Cx. quinquefasciatus	Fresno	50	GRVD	9/3/2020	SLEV
Fresno	FRNO196	466	Cx. quinquefasciatus	Fresno	50	GRVD	9/3/2020	SLEV
Fresno	FRNO196	466	Cx. quinquefasciatus	Fresno	50	GRVD	9/3/2020	WNV
Fresno	FRNO196	467	Cx. quinquefasciatus	Fresno	50	GRVD	9/3/2020	SLEV
Fresno	FRNO196	469	Cx. quinquefasciatus	Fresno	50	GRVD	9/3/2020	SLEV
Fresno	FRNO196	470	Cx. quinquefasciatus	Fresno	39	GRVD	9/3/2020	SLEV
Fresno	FRNO35	483	Cx. quinquefasciatus	Fresno	16	GRVD	9/9/2020	WNV
Fresno	FRWS100006	319	Cx. tarsalis	Dos Palos	50	CO2	9/15/2020	WNV
Fresno	FRWS1202	321	Cx. tarsalis	Dos Palos	50	CO2	9/15/2020	WNV
Fresno	FRWS1202	323	Cx. tarsalis	Dos Palos	50	CO2	9/15/2020	SLEV
Fresno	FRWS1202	323	Cx. tarsalis	Dos Palos	50	CO2	9/15/2020	WNV
Fresno	FRWS300011	311	Cx. quinquefasciatus	Firebaugh	21	CO2	9/15/2020	SLEV
Fresno	FRWS400003	324	Cx. tarsalis	Mendota	21	CO2	9/15/2020	WNV
Fresno	FRWS400017	325	Cx. tarsalis	Mendota	50	CO2	9/15/2020	SLEV
Fresno	FRWS5302	326	Cx. tarsalis	Helm	50	CO2	9/15/2020	WNV
Kern	DLNO116	285	Cx. quinquefasciatus	Delano	14	GRVD	9/11/2020	SLEV
Kern	DLNO78	282	Cx. quinquefasciatus	Delano	50	BGSENT	9/10/2020	WNV
Los Angeles	GRLA2115	586	Cx. quinquefasciatus	Bell	50	GRVD	9/9/2020	WNV
Los Angeles	GRLA2166	601	Cx. quinquefasciatus	Montebello	32	GRVD	9/10/2020	WNV
Los Angeles	GRLA2268	598	Cx. quinquefasciatus	Cerritos	35	GRVD	9/10/2020	WNV
Los Angeles	GRLA2323	607	Cx. quinquefasciatus	Los Angeles	26	GRVD	9/11/2020	WNV
Los Angeles	GRLA2346	602	Cx. quinquefasciatus	Montebello	50	GRVD	9/10/2020	WNV
Los Angeles	GRLA2548	5813	Cx. quinquefasciatus	Sylmar	15	GRVD	9/11/2020	WNV
Los Angeles	GRLA2866	5778	Cx. quinquefasciatus	Studio City	44	GRVD	9/9/2020	WNV
Los Angeles	GRLA2866	5780	Cx. quinquefasciatus	Studio City	21	GRVD	9/9/2020	WNV
Los Angeles	GRLA2866	5785	Cx. quinquefasciatus	Studio City	23	GRVD	9/9/2020	WNV
Los Angeles	GRLA2866	5790	Cx. quinquefasciatus	Studio City	34	GRVD	9/9/2020	WNV
Los Angeles	GRLA2952	591	Cx. quinquefasciatus	South Whittier	13	GRVD	9/10/2020	WNV
Los Angeles	GRLA2953	594	Cx. quinquefasciatus	Santa Fe Springs	50	GRVD	9/10/2020	WNV
Los Angeles	GRLA3038	5805	Cx. quinquefasciatus	Valley Village	50	GRVD	9/10/2020	WNV
Los Angeles	GRLA3039	5799	Cx. quinquefasciatus	Los Angeles	30	GRVD	9/10/2020	WNV
Los Angeles	GRLA3041	597	Cx. quinquefasciatus	Artesia	50	GRVD	9/10/2020	WNV
Los Angeles	GRLA3048	600	Cx. quinquefasciatus	Pico Rivera	44	GRVD	9/10/2020	WNV
Los Angeles	GRLA3049	588	Cx. quinquefasciatus	Downey	50	GRVD	9/9/2020	WNV
Los Angeles	GRLA3058	580	Cx. quinquefasciatus	Lynwood	16	GRVD	9/9/2020	WNV
Los Angeles	GRLA3059	579	Cx. quinquefasciatus	Paramount	48	GRVD	9/9/2020	WNV
Los Angeles	GRLA3060	595	Cx. quinquefasciatus	Norwalk	42	GRVD	9/10/2020	WNV
Los Angeles	GRLA3066	5809	Cx. quinquefasciatus	Valley Glen	50	GRVD	9/10/2020	WNV
Los Angeles	GRLA3069	5806	Cx. quinquefasciatus	Valley Village	50	GRVD	9/10/2020	WNV
Los Angeles	GRLA3080	5808	Cx. quinquefasciatus	North Hollywood	38	GRVD	9/10/2020	WNV
Los Angeles	LACW1009	526	Cx. quinquefasciatus	Los Angeles	23	GRVD	9/9/2020	WNV
Los Angeles	LACW1079	532	Cx. erythrothorax	Playa Del Rey	48	CO2	9/9/2020	WNV

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

Los Angeles	LACW1079	535	Cx. erythrothorax	Playa Del Rey	50	CO2	9/9/2020	WNV
Los Angeles	LACW1079	537	Cx. erythrothorax	Playa Del Rey	40	CO2	9/9/2020	WNV
Los Angeles	SGVA1022	1020	Cx. quinquefasciatus	Azusa	50	GRVD	9/16/2020	WNV
Los Angeles	SGVA445	1030	Cx. quinquefasciatus	Rosemead	50	GRVD	9/16/2020	WNV
Los Angeles	SGVA695	1031	Cx. quinquefasciatus	Rosemead	50	GRVD	9/16/2020	WNV
Los Angeles	SGVA875	1011	Cx. quinquefasciatus	Walnut	37	GRVD	9/16/2020	WNV
Los Angeles	SGVA994	1014	Cx. quinquefasciatus	Baldwin Park	35	GRVD	9/16/2020	WNV
Madera	MADR195	375	Cx. quinquefasciatus	Madera	50	CO2	9/11/2020	WNV
Madera	MADR195	376	Cx. tarsalis	Madera	50	CO2	9/11/2020	SLEV
Madera	MADR195	376	Cx. tarsalis	Madera	50	CO2	9/11/2020	WNV
Madera	MADR301	358	Cx. quinquefasciatus	Chowchilla	50	CO2	9/9/2020	WNV
Madera	MADR3334	369	Cx. quinquefasciatus	Madera	27	CO2	9/10/2020	WNV
Madera	MADR3334	370	Cx. tarsalis	Madera	28	CO2	9/10/2020	WNV
Orange	ORCO1005	4098	Cx. quinquefasciatus	Buena Park	40	GRVD	9/15/2020	WNV
Orange	ORCO1008	4096	Cx. quinquefasciatus	Fullerton	17	GRVD	9/15/2020	WNV
Orange	ORCO1008	4102	Cx. quinquefasciatus	Fullerton	47	GRVD	9/15/2020	WNV
Orange	ORCO1008	4196	Cx. quinquefasciatus	Fullerton	24	GRVD	9/16/2020	WNV
Orange	ORCO1008	4201	Cx. quinquefasciatus	Fullerton	36	GRVD	9/16/2020	WNV
Orange	ORCO1008	4212	Cx. quinquefasciatus	Fullerton	26	GRVD	9/16/2020	WNV
Orange	ORCO1008	4219	Cx. quinquefasciatus	Fullerton	19	GRVD	9/16/2020	WNV
Orange	ORCO1011	4216	Cx. quinquefasciatus	La Habra	19	GRVD	9/16/2020	WNV
Orange	ORCO1031	4112	Cx. quinquefasciatus	Los Alamitos	11	GRVD	9/15/2020	WNV
Orange	ORCO1031	4127	Cx. quinquefasciatus	Los Alamitos	32	GRVD	9/15/2020	WNV
Orange	ORCO17	4147	Cx. quinquefasciatus	Orange	7	GRVD	9/15/2020	WNV
Orange	ORCO170	4165	Cx. quinquefasciatus	Anaheim	31	GRVD	9/15/2020	WNV
Orange	ORCO170	4166	Cx. quinquefasciatus	Anaheim	31	GRVD	9/15/2020	WNV
Orange	ORCO193	4258	Cx. quinquefasciatus	Huntington Beach	16	GRVD	9/17/2020	WNV
Orange	ORCO202	4110	Cx. quinquefasciatus	Fullerton	20	GRVD	9/15/2020	WNV
Orange	ORCO218	4115	Cx. quinquefasciatus	Anaheim	46	GRVD	9/15/2020	WNV
Orange	ORCO218	4122	Cx. quinquefasciatus	Anaheim	44	GRVD	9/15/2020	WNV
Orange	ORCO218	4128	Cx. quinquefasciatus	Anaheim	42	GRVD	9/15/2020	WNV
Orange	ORCO218	4190	Cx. quinquefasciatus	Anaheim	39	GRVD	9/16/2020	WNV
Orange	ORCO218	4192	Cx. quinquefasciatus	Anaheim	50	GRVD	9/16/2020	WNV
Orange	ORCO218	4193	Cx. quinquefasciatus	Anaheim	13	GRVD	9/16/2020	WNV
Orange	ORCO218	4237	Cx. quinquefasciatus	Anaheim	36	GRVD	9/17/2020	WNV
Orange	ORCO218	4238	Cx. quinquefasciatus	Anaheim	36	GRVD	9/17/2020	WNV
Orange	ORCO218	4246	Cx. quinquefasciatus	Anaheim	37	GRVD	9/17/2020	WNV
Orange	ORCO218	4247	Cx. quinquefasciatus	Anaheim	37	GRVD	9/17/2020	WNV
Orange	ORCO218	4264	Cx. quinquefasciatus	Anaheim	38	GRVD	9/17/2020	WNV
Orange	ORCO227	4131	Cx. quinquefasciatus	Brea	27	GRVD	9/15/2020	WNV
Orange	ORCO236	4229	Cx. quinquefasciatus	Garden Grove	50	GRVD	9/16/2020	WNV
Orange	ORCO241	4175	Cx. quinquefasciatus	Stanton	38	GRVD	9/15/2020	WNV
Orange	ORCO297	4174	Cx. quinquefasciatus	Anaheim	23	GRVD	9/15/2020	WNV
Orange	ORCO3	4187	Cx. quinquefasciatus	Garden Grove	51	GRVD	9/16/2020	WNV
Riverside	COAV10	3855	Cx. tarsalis	Oasis	30	CO2	9/15/2020	WNV
Riverside	COAV130	3853	Cx. tarsalis	Oasis	10	CO2	9/15/2020	SLEV
Riverside	COAV130	3853	Cx. tarsalis	Oasis	10	CO2	9/15/2020	WNV
Riverside	COAV132	3845	Cx. tarsalis	Oasis	42	CO2	9/15/2020	SLEV
Riverside	COAV33	3842	Cx. tarsalis	Thermal	50	CO2	9/15/2020	SLEV
Riverside	COAV37	3859	Cx. tarsalis	Mecca	50	CO2	9/15/2020	SLEV

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

Riverside	COAV5	3857	Cx. tarsalis	Oasis	11	CO2	9/15/2020	SLEV
Riverside	COAV5	3857	Cx. tarsalis	Oasis	11	CO2	9/15/2020	WNV
Riverside	COAV540	3847	Cx. tarsalis	Mecca	50	CO2	9/15/2020	SLEV
Sacramento	SAYO205008	5346	Cx. pipiens	Folsom	14	GRVD	9/3/2020	WNV
Sacramento	SAYO222065	5846	Cx. pipiens	Sacramento	18	GRVD	9/15/2020	WNV
Sacramento	SAYO223021	5856	Cx. pipiens	Sacramento	16	GRVD	9/15/2020	WNV
Sacramento	SAYO245026	5784	Cx. tarsalis	Wilton	50	CO2	9/11/2020	WNV
Sacramento	SAYO271007	5777	Cx. tarsalis	Isleton	37	CO2	9/11/2020	WNV
San Bernardino	WVAL359	1797	Cx. quinquefasciatus	Chino	45	CO2	9/15/2020	WNV
San Joaquin	SJCM8160	1873	Cx. tarsalis	Lodi	50	CO2	9/15/2020	WNV
San Joaquin	SJCM8160	1876	Cx. tarsalis	Lodi	32	CO2	9/15/2020	WNV
San Joaquin	SJCM8199	1938	Cx. pipiens	Manteca	50	CO2	9/15/2020	WNV
San Joaquin	SJCM8205	1978	Cx. tarsalis	Farmington	26	CO2	9/17/2020	WNV
San Joaquin	SJCM8205	1979	Cx. pipiens	Farmington	16	CO2	9/17/2020	WNV
San Joaquin	SJCM8206	1912	Cx. tarsalis	Lodi	100	CO2	9/15/2020	WNV
San Joaquin	SJCM8206	1914	Cx. tarsalis	Lodi	100	CO2	9/15/2020	WNV
San Joaquin	SJCM8208	1997	Cx. tarsalis	Lodi	18	CO2	9/17/2020	WNV
San Joaquin	SJCM8208	1998	Cx. pipiens	Lodi	24	CO2	9/17/2020	WNV
San Joaquin	SJCM8210	1959	Cx. pipiens	Escalon	50	CO2	9/15/2020	WNV
San Joaquin	SJCM8210	1960	Cx. pipiens	Escalon	50	CO2	9/15/2020	WNV
San Joaquin	SJCM8224	2001	Cx. tarsalis	Lodi	15	CO2	9/17/2020	WNV
San Joaquin	SJCM8232	1923	Cx. tarsalis	Oakdale	42	CO2	9/15/2020	WNV
San Joaquin	SJCM8232	1925	Cx. pipiens	Oakdale	50	CO2	9/15/2020	WNV
San Joaquin	SJCM8232	1927	Cx. pipiens	Oakdale	50	CO2	9/15/2020	WNV
San Joaquin	SJCM8232	1928	Cx. pipiens	Oakdale	50	CO2	9/15/2020	WNV
Shasta	SHAS110	644	Cx. pipiens	Redding	34	CO2	9/15/2020	WNV
Shasta	SHAS148	654	Cx. tarsalis	Cottonwood	25	CO2	9/16/2020	WNV
Shasta	SHAS224	641	Cx. pipiens	Cottonwood	14	CO2	9/15/2020	WNV
Shasta	SHAS346	652	Cx. tarsalis	Anderson	33	CO2	9/16/2020	WNV
Shasta	SHAS80	637	Cx. pipiens	Anderson	34	CO2	9/15/2020	WNV
Solano	SOLA153	403	Cx. tarsalis	Vacaville	12	CO2	9/11/2020	WNV
Solano	SOLA33	397	Cx. tarsalis	Davis	50	CO2	9/11/2020	WNV
Solano	SOLA35	401	Cx. tarsalis	Davis	50	CO2	9/11/2020	WNV
Stanislaus	TRLK1219	1149	Cx. tarsalis	Modesto	38	CO2	9/15/2020	WNV
Stanislaus	TRLK1302	1094	Cx. pipiens	Turlock	24	CO2	9/15/2020	WNV
Stanislaus	TRLK1309	1147	Cx. pipiens	Hughson	17	CO2	9/15/2020	WNV
Stanislaus	TRLK1615	1006	Cx. tarsalis	Modesto	50	CO2	9/9/2020	WNV
Stanislaus	TRLK17274	1152	Cx. tarsalis	Newman	50	CO2	9/15/2020	SLEV
Stanislaus	TRLK548	1151	Cx. pipiens	Newman	19	CO2	9/15/2020	WNV
Tulare	DLNO75	283	Cx. quinquefasciatus	Earlimart	50	BGSENT	9/10/2020	SLEV
Tulare	DLNO75	283	Cx. quinquefasciatus	Earlimart	50	BGSENT	9/10/2020	WNV
Tulare	DLTA6417	2125	Cx. quinquefasciatus	Dinuba	12	GRVD	9/11/2020	WNV
Tulare	DLTA7517	2119	Cx. quinquefasciatus	Yetttem	50	CO2	9/11/2020	WNV
Tulare	DLTA7517	2120	Cx. quinquefasciatus	Yetttem	40	CO2	9/11/2020	WNV
Tulare	DLTA7517	2122	Cx. tarsalis	Yetttem	47	CO2	9/11/2020	WNV
Tulare	DLTA7529	2115	Cx. quinquefasciatus	Visalia	42	CO2	9/11/2020	WNV
Tulare	DLTA8413	2144	Cx. quinquefasciatus	Visalia	50	BGSENT	9/15/2020	WNV
Tulare	DLTA8419	2150	Cx. quinquefasciatus	Goshen	42	GRVD	9/16/2020	SLEV
Yolo	SAYO115008	5922	Cx. tarsalis	Woodland	50	CO2	9/15/2020	WNV
Yolo	SAYO115008	5923	Cx. tarsalis	Woodland	50	CO2	9/15/2020	WNV

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

Yolo	SAYO125021	5411	Cx. pipiens	Woodland	38	GRVD	9/4/2020	WNV
Yolo	SAYO135006	5384	Cx. tarsalis	Woodland	50	CO2	9/4/2020	WNV

Sentinel Chickens

County	Site Code	Nearest City	Date Bled	Virus	Band 01	Band 02	Band 03	Band 04
Butte	BUCO0003	Oroville	9/8/2020	WNV	1867	1868		
Butte	BUCO0004	Gridley	9/8/2020	WNV	1839	1843	1844	
Butte	BUCO0007	Chico	9/8/2020	WNV	1859	1862		
Contra Costa	CNTR8152	Knightsen	9/8/2020	WNV	1763	1764		
Glenn	GLEN9701	Willows	9/9/2020	WNV	1791			
Lake	LAKE1000	Upper Lake	9/8/2020	WNV	1109	1110		
Shasta	SHAS5038		9/11/2020	WNV	5168			
Shasta	SHAS9702	Millville	9/11/2020	WNV	5173			
Solano	SOLA0148	Fairfield	9/9/2020	WNV	1742			
Tehama	TEHA0001	Red Bluff	9/8/2020	WNV	2518			
Tehama	TEHA0066	Cottonwood	9/8/2020	WNV	2502			
Tulare	TLRE202436	Tulare	9/3/2020	WNV	3612	3614	3616	3620

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 with a plaque reduction neutralization test (PRNT).

Dead Birds

Oral swab samples collected from bird carcasses are tested at the UC Davis Arbovirus Research and Training laboratory (DART) or at a local agency for West Nile virus by RT-qPCR.

Sentinel Chickens:

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

Mosquito Pools:

Mosquito pools are tested at DART or at a local agency for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex RT-qPCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-qPCR.

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.maps.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC websites: www.cdc.gov and www.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html

California Arbovirus Surveillance Bulletin #23

Week 38 Friday, September 18, 2020

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