

California Arbovirus Surveillance Bulletin #12

Week 26 Friday, June 30, 2023



WEEKLY UPDATE

Humans

No human infections have been reported in 2023.

Dead Birds

A total of 10 new West Nile virus (WNV) positive dead birds were reported this week from 5 counties: Placer (2), Riverside (1), Sacramento (4), Solano (1), and San Joaquin (2). **This is the first detection of a WNV positive dead bird and the first detection of WNV activity in Solano County this year.** In 2023, 51 WNV positive dead birds have been reported from 10 counties. At this time last year, 14 WNV positive dead birds had been reported from 6 counties.

Mosquito Pools

West Nile virus

A total of 64 new WNV positive mosquito pools were reported from 10 counties: Butte (1), Kern (1), Los Angeles (3), Merced (1), Placer (3), Sacramento (11), San Joaquin (17), Stanislaus (6), Tulare (18), and Yolo (3). **This is the first detection of WNV activity in Butte and Merced counties this year.** In 2023, 148 WNV positive mosquito pools have been reported from 11 counties. At this time last year, 138 WNV positive mosquito pools had been reported from 15 counties.

St. Louis encephalitis virus

A total of 16 new SLEV positive mosquito pools were reported from 3 counties: Fresno (3), Kern (2), and Riverside (11). In 2023, 24 SLEV positive mosquito pools were reported from 4 counties: Fresno (4), Imperial (1), Kern (5), and Riverside (14). At this time last year, 2 SLEV positive pools had been reported from 2 counties.

Sentinel Chickens

No seroconversions have been reported in 2023.

2022 & 2023 YTD West Nile Virus Comparisons		
	2022	2023
Total No. Dead Bird Reports	2,390	2,580
No. Positive Counties	18	14
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	14 / 567	51 / 554
No. Positive Mosquito Pools / No. Tested	138 / 11,535	148 / 17,255
No. Seroconversions / No. Tested	0 / 1,585	0 / 1,260

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YTD WNV Activity by Element and County, 2023					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			2	1	
Butte				1	
Kern				7	
Los Angeles			9	20	
Merced				1	
Placer			3	4	
Riverside			4		
Sacramento			15	19	
San Joaquin			3	43	
Santa Clara			11		
Solano			1		
Stanislaus				10	
Tulare			2	38	
Yolo			1	4	
Totals	0	0	51	148	0

TESTING SUMMARIES

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

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Dead Birds	Week	10 / 95					
	YTD	51 / 554					
Chicken Sera	Week	0 / 186	0 / 186	0 / 186			
	YTD	0 / 1,260	0 / 1,260	0 / 1,260			
Mosquito Pools	Week	64 / 2,986	16 / 2,737	0 / 2,737	0 / 54	0 / 54	0 / 54
	YTD	148 / 17,255	24 / 16,971	0 / 16,970	0 / 152	0 / 152	0 / 152

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NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Riverside	Northwest Mosquito VCD	Norco	92860	Hawk	6/16/2023	WNV
Placer	Placer MVCD	Roseville	95747	Unknown - songbird	6/27/2023	WNV
Placer	Placer MVCD	Roseville	95747	American Robin	6/30/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Antelope	95843	Brewer's Blackbird	6/21/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Antelope	95843	House Sparrow	6/21/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95823	Mourning Dove	6/21/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95829	California Scrub-Jay	6/27/2023	WNV
San Joaquin	San Joaquin Co MVCD	Stockton	95219	American Crow	6/26/2023	WNV
San Joaquin	San Joaquin Co MVCD	Stockton	95204	Unknown	6/26/2023	WNV
Solano	Solano Co MAD	Fairfield	94534	California Scrub-Jay	6/26/2023	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap	Collected	Virus
Butte	BUCO 182	175	Cx tarsalis	Durham	50	CO2	6/28/23	WNV
Fresno	FRNO 174	509	Cx quinquefasciatus	Fresno	50	GRVD	6/27/2023	SLEV
Fresno	FRNO 36	545	Cx quinquefasciatus	Fresno	50	GRVD	6/28/2023	SLEV
Fresno	FRNO 38	549	Cx tarsalis	Fresno	15	CO2	6/28/2023	SLEV
Kern	DLNO 1	113	Cx quinquefasciatus	McFarland	50	BGSENT	6/21/2023	WNV
Kern	DLNO 205	120	Cx quinquefasciatus	Delano	40	CO2	6/22/2023	SLEV
Kern	KERN 1010	826	Cx tarsalis	Bakersfield	50	CO2	6/22/2023	SLEV
Los Angeles	SGVA 1216	251	Cx quinquefasciatus	Covina	50	GRVD	6/29/2023	WNV
Los Angeles	SGVA 1281	255	Cx quinquefasciatus	Covina	50	GRVD	6/29/2023	WNV
Los Angeles	SGVA 508	257	Cx quinquefasciatus	Covina	50	GRVD	6/29/2023	WNV
Merced	MERC 1222	434	Cx tarsalis	Merced	50	CO2	6/27/2023	WNV
Placer	PLCR 466642	447	Cx tarsalis	Roseville	50	OTHER	6/30/2023	WNV
Placer	PLCR 466642	452	Cx pipiens	Roseville	6	OTHER	6/30/2023	WNV
Placer	PLCR 772971	455	Cx tarsalis	Roseville	50	OTHER	6/30/2023	WNV
Riverside	COAV 0	3365	Cx tarsalis	Indio	50	CO2	6/29/2023	SLEV
Riverside	COAV 0	3368	Cx tarsalis	Indio	50	CO2	6/29/2023	SLEV
Riverside	COAV 0	3372	Cx tarsalis	Indio	35	CO2	6/29/2023	SLEV
Riverside	COAV 0	3378	Cx tarsalis	Indio	35	CO2	6/29/2023	SLEV
Riverside	COAV 0	3401	Cx tarsalis	Indio	23	CO2	6/29/2023	SLEV
Riverside	COAV 122	3359	Cx tarsalis	Mecca	50	CO2	6/29/2023	SLEV
Riverside	COAV 45	3293	Cx tarsalis	Mecca	50	CO2	6/27/2023	SLEV
Riverside	COAV 45	3352	Cx tarsalis	Mecca	50	CO2	6/29/2023	SLEV
Riverside	COAV 45	3353	Cx tarsalis	Mecca	27	CO2	6/29/2023	SLEV
Riverside	COAV 46	3246	Cx tarsalis	Mecca	17	CO2	6/27/2023	SLEV
Riverside	COAV 55	3290	Cx tarsalis	Mecca	47	CO2	6/27/2023	SLEV
Sacramento	SAYO 204020	1689	Cx pipiens	Sacramento	14	CO2	6/27/2023	WNV
Sacramento	SAYO 204020	1691	Cx pipiens	Sacramento	50	GRVD	6/27/2023	WNV
Sacramento	SAYO 223044	1568	Cx pipiens	Sacramento	16	GRVD	6/27/2023	WNV
Sacramento	SAYO 233009	1563	Cx pipiens	Elk Grove	11	GRVD	6/27/2023	WNV
Sacramento	SAYO 233015	1581	Cx tarsalis	Sacramento	6	CO2	6/27/2023	WNV
Sacramento	SAYO 233015	1584	Cx pipiens	Sacramento	50	GRVD	6/27/2023	WNV
Sacramento	SAYO 233015	1586	Cx tarsalis	Sacramento	1	GRVD	6/27/2023	WNV
Sacramento	SAYO 394970	1701	Cx tarsalis	Sacramento	8	BGSENT	6/28/2023	WNV
Sacramento	SAYO 397721	1699	Cx tarsalis	Sacramento	23	BGSENT	6/28/2023	WNV
Sacramento	SAYO 397918	1708	Cx tarsalis	Sacramento	50	BGSENT	6/28/2023	WNV
Sacramento	SAYO 397918	1709	Cx tarsalis	Sacramento	43	BGSENT	6/28/2023	WNV
San Joaquin	SJCM 2151	883	Cx tarsalis	Tracy	50	CO2	6/27/2023	WNV
San Joaquin	SJCM 2151	884	Cx tarsalis	Tracy	50	CO2	6/27/2023	WNV
San Joaquin	SJCM 2151	886	Cx pipiens	Tracy	17	CO2	6/27/2023	WNV
San Joaquin	SJCM 8003	888	Cx tarsalis	Tracy	26	CO2	6/27/2023	WNV

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San Joaquin	SJCM 8008	982	Cx tarsalis	Manteca	100	CO2	6/27/2023	WNV
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San Joaquin	SJCM 8008	984	Cx tarsalis	Manteca	100	CO2	6/27/2023	WNV
San Joaquin	SJCM 8008	985	Cx tarsalis	Manteca	100	CO2	6/27/2023	WNV
San Joaquin	SJCM 8008	986	Cx tarsalis	Manteca	100	CO2	6/27/2023	WNV
San Joaquin	SJCM 8032	1049	Cx pipiens	Escalon	16	CO2	6/29/2023	WNV
San Joaquin	SJCM 8048	1005	Cx tarsalis	Stockton	50	CO2	6/29/2023	WNV
San Joaquin	SJCM 8078	1041	Cx tarsalis	Stockton	43	FAYPRINCE	6/29/2023	WNV
San Joaquin	SJCM 8100	893	Cx tarsalis	Tracy	50	CO2	6/27/2023	WNV
San Joaquin	SJCM 8100	896	Cx pipiens	Tracy	50	CO2	6/27/2023	WNV
San Joaquin	SJCM 8189	997	Cx tarsalis	Acampo	50	CO2	6/29/2023	WNV
San Joaquin	SJCM 8189	999	Cx pipiens	Acampo	48	CO2	6/29/2023	WNV
San Joaquin	SJCM 8222	1002	Cx tarsalis	Stockton	50	CO2	6/29/2023	WNV
Stanislaus	EAST 1008	23081	Cx tarsalis	Modesto	43	CO2	6/15/2023	WNV
Stanislaus	EAST 1011	23093	Cx tarsalis	Modesto	50	CO2	6/23/2023	WNV
Stanislaus	TRLK 1616	781	Cx pipiens	Modesto	33	CO2	6/27/2023	WNV
Stanislaus	TRLK 17274	793	Cx tarsalis	Newman	34	CO2	6/27/2023	WNV
Stanislaus	TRLK 312	795	Cx tarsalis	Newman	50	CO2	6/27/2023	WNV
Stanislaus	TRLK 549	798	Cx pipiens	Newman	50	CO2	6/27/2023	WNV
Tulare	DLTA 752842	2854	Cx quinquefasciatus	Ivanhoe	50	CO2	6/14/2023	WNV
Tulare	DLTA 841543	3295	Cx quinquefasciatus	Visalia	50	CO2	6/16/2023	WNV
Tulare	DLTA 841543	3312	Cx quinquefasciatus	Visalia	50	CO2	6/16/2023	WNV
Tulare	DLTA 8423	3416	Cx quinquefasciatus	Visalia	30	BGSENT	6/21/2023	WNV
Tulare	DLTA 8512	3336	Cx quinquefasciatus	Ivanhoe	16	BGSENT	6/20/2023	WNV
Tulare	DLTA 8521	3156	Cx tarsalis	Visalia	24	BGSENT	6/16/2023	WNV
Tulare	DLTA 85301	3375	Cx quinquefasciatus	Visalia	45	BGSENT	6/20/2023	WNV
Tulare	DLTA 8531	3084	Cx quinquefasciatus	Visalia	50	GRVD	6/16/2023	WNV
Tulare	DLTA 8533	3088	Cx tarsalis	Visalia	17	BGSENT	6/16/2023	WNV
Tulare	DLTA 8534	2768	Cx quinquefasciatus	Visalia	45	BGSENT	6/14/2023	WNV
Tulare	DLTA 9401	3086	Cx quinquefasciatus	Visalia	11	GRVD	6/16/2023	WNV
Tulare	DLTA 9504	3370	Cx quinquefasciatus	Visalia	12	BGSENT	6/20/2023	WNV
Tulare	DLTA 9505	3345	Cx quinquefasciatus	Visalia	23	BGSENT	6/20/2023	WNV
Tulare	DLTA 9506	3403	Cx quinquefasciatus	Visalia	20	BGSENT	6/21/2023	WNV
Tulare	DLTA 950924	3047	Cx quinquefasciatus	Visalia	50	CO2	6/15/2023	WNV
Tulare	DLTA 950924	3049	Cx tarsalis	Visalia	50	CO2	6/15/2023	WNV
Tulare	DLTA 950924	3058	Cx tarsalis	Visalia	50	CO2	6/15/2023	WNV
Tulare	DLTA 951631	3043	Cx tarsalis	Visalia	50	CO2	6/15/2023	WNV
Yolo	SAYO 103007	1614	Cx tarsalis	Dunnigan	50	CO2	6/27/2023	WNV
Yolo	SAYO 103007	1620	Cx pipiens	Dunnigan	37	GRVD	6/27/2023	WNV
Yolo	SAYO 146002	1647	Cx pipiens	Davis	22	GRVD	6/27/2023	WNV

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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 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, <https://westnile.ca.gov>, or the California Vector-Borne Disease Surveillance System website, <https://maps.vectorsurv.org>.

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