

California Arbovirus Surveillance Bulletin #10

Week 24 Friday, June 14, 2024



WEEKLY UPDATE

Humans

No human infections have been reported in 2024.

Dead Birds

A total of 12 new West Nile virus (WNV) positive dead birds were reported from 4 counties: Alameda (1), Sacramento (7), Santa Clara (3), and Yolo (1). **This is the first detection of WNV activity in Yolo County this year.** In 2024, 31 WNV positive dead birds have been reported from 8 counties. At this time last year, 31 WNV positive dead birds had been reported from 6 counties.

Mosquito Pools

West Nile virus

A total of 59 new WNV positive mosquito pools were reported from 5 counties: Fresno (1), Imperial (1), Merced (1), Riverside (54), and Sacramento (2). **These are the first detections of WNV activity in Imperial County and Merced County this year.** In 2024, 111 WNV positive mosquito pools have been reported from 9 counties. At this time last year, 31 WNV positive mosquito pools had been reported from 8 counties.

St. Louis encephalitis virus

A single (1) new St. Louis encephalitis virus (SLEV) positive mosquito pool was reported from 1 county: Tulare (1). **This is the first detection of SLEV in Tulare County this year.** In 2024, 3 SLEV positive mosquito pools have been reported from 2 counties: Fresno (2) and Tulare (1). At this time last year, 3 SLEV positive mosquito pools had been reported from 2 counties.

Sentinel Chickens

No seroconversions have been reported in 2024.

2023 & 2024 YTD West Nile Virus Comparisons		
	2023	2024
Total No. Dead Bird Reports	2,165	2,455
No. Positive Counties	10	14
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	31 / 410	31 / 537
No. Positive Mosquito Pools / No. Tested	31 / 11,571	111 / 12,783
No. Seroconversions / No. Tested	0 / 986	0 / 956

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Week 24 Friday, June 14, 2024

YTD WNV Activity by Element and County, 2024					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			6	1	
Contra Costa			1		
Fresno				3	
Imperial				1	
Los Angeles				1	
Merced				1	
Riverside				99	
Sacramento			8	2	
San Diego			2		
San Joaquin			1		
San Mateo			4		
Santa Clara			8	2	
Stanislaus				1	
Yolo			1		
Totals			31	111	

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	12 / 91					
	YTD	31 / 537					
Chicken Sera	Week	0 / 204	0 / 204	0 / 204			
	YTD	0 / 956	0 / 956	0 / 956			
Mosquito Pools	Week	59 / 1,382	1 / 1,382	0 / 1,382	0 / 4	0 / 4	0 / 4
	YTD	111 / 12,783	3 / 12,185	0 / 12,185	0 / 121	0 / 121	0 / 121

California Arbovirus Surveillance Bulletin #10

Week 24 Friday, June 14, 2024

POSITIVES

Dead Birds

County	Submitting Agency	City	Zip Code	Species	Date Reported	Virus
Alameda	Alameda Co MAD	Union City	94587	American Crow	6/13/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	6/6/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95817	American Crow	6/7/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95824	Mourning Dove	6/7/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	6/10/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	6/10/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95818	American Crow	6/10/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	6/11/2024	WNV
Santa Clara	Santa Clara Co VCD	Mountain View	94040	American Crow	6/9/2024	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94306	American Crow	6/10/2024	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94306	American Crow	6/10/2024	WNV
Yolo	Sacramento-Yolo MVCD	Woodland	95776	House Finch	6/11/2024	WNV

Mosquito Pools

County	Site	Pool No	Species	City	Pool Size	Trap	Collected	Virus
Fresno	CNSL 9179	52	Cx quinquefasciatus	Fresno	50	GRVD	6/7/2024	WNV
Imperial	IMPR 102	116	Cx quinquefasciatus	Winterhaven	23	BGSENT	6/11/2024	WNV
Merced	MERC 702	113	Cx tarsalis	Atwater	13	CO2	6/12/2024	WNV
Riverside	NWST 403	120	Cx quinquefasciatus	Mira Loma	29	BGSENT	6/5/2024	WNV
Riverside	NWST 5003	119	Cx quinquefasciatus	Riverside	5	GRVD	6/5/2024	WNV
Riverside	COAV 0	3168	Cx quinquefasciatus	Indio	42	BGSENT	6/13/2024	WNV
Riverside	COAV 0	3250	Cx tarsalis	Indio	50	CO2	6/13/2024	WNV
Riverside	COAV 0	3314	Cx quinquefasciatus	Indio	24	GRVD	6/13/2024	WNV
Riverside	COAV 0	3315	Cx quinquefasciatus	Indio	40	GRVD	6/13/2024	WNV
Riverside	COAV 0	3318	Cx tarsalis	Indio	5	BGSENT	6/13/2024	WNV
Riverside	COAV 10	3237	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 13	3090	Cx tarsalis	Thermal	50	CO2	6/11/2024	WNV
Riverside	COAV 13	3091	Cx tarsalis	Thermal	50	CO2	6/11/2024	WNV
Riverside	COAV 130	3214	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 130	3215	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 130	3216	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 130	3218	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 131	3131	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 131	3241	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 131	3242	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 132	3230	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 132	3233	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 17	3225	Cx tarsalis	Mecca	50	CO2	6/11/2024	WNV
Riverside	COAV 17	3227	Cx tarsalis	Mecca	50	CO2	6/11/2024	WNV
Riverside	COAV 17	3228	Cx tarsalis	Mecca	50	CO2	6/11/2024	WNV
Riverside	COAV 17	3229	Cx tarsalis	Mecca	29	CO2	6/11/2024	WNV
Riverside	COAV 2	3220	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 2	3222	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 2	3223	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 27	3092	Cx tarsalis	Thermal	9	CO2	6/11/2024	WNV
Riverside	COAV 33	3088	Cx tarsalis	Thermal	50	CO2	6/11/2024	WNV
Riverside	COAV 33	3089	Cx tarsalis	Thermal	22	CO2	6/11/2024	WNV
Riverside	COAV 34	3207	Cx tarsalis	Mecca	26	CO2	6/11/2024	WNV
Riverside	COAV 35	3080	Cx tarsalis	Mecca	50	CO2	6/11/2024	WNV
Riverside	COAV 35	3081	Cx tarsalis	Mecca	28	CO2	6/11/2024	WNV
Riverside	COAV 37	3083	Cx tarsalis	Mecca	50	CO2	6/11/2024	WNV
Riverside	COAV 420	3138	Cx quinquefasciatus	La Quinta	50	GRVD	6/11/2024	WNV
Riverside	COAV 421	3190	Cx quinquefasciatus	Indio	33	GRVD	6/11/2024	WNV
Riverside	COAV 5	3149	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV

California Arbovirus Surveillance Bulletin #10

Week 24 Friday, June 14, 2024

Riverside	COAV 5	3150	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 5	3151	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 5	3201	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 5	3202	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 5	3203	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 5	3204	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 536	3197	Cx quinquefasciatus	Thermal	50	CO2	6/11/2024	WNV
Riverside	COAV 536	3199	Cx tarsalis	Thermal	17	CO2	6/11/2024	WNV
Riverside	COAV 540	3082	Cx tarsalis	Mecca	44	CO2	6/11/2024	WNV
Riverside	COAV 6	3155	Cx quinquefasciatus	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 6	3158	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 6	3159	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 6	3160	Cx tarsalis	Oasis	50	CO2	6/11/2024	WNV
Riverside	COAV 763	3143	Cx quinquefasciatus	La Quinta	21	BGSENT	6/11/2024	WNV
Riverside	COAV 775	3195	Cx quinquefasciatus	Palm Desert	29	BGSENT	6/11/2024	WNV
Riverside	COAV 832	2867	Cx quinquefasciatus	Rancho Mirage	42	BGSENT	6/13/2024	WNV
Riverside	COAV 9	3210	Cx tarsalis	Thermal	50	CO2	6/11/2024	WNV
Riverside	COAV 9	3211	Cx tarsalis	Thermal	16	CO2	6/11/2024	WNV
Sacramento	SAYO 213017	795	Cx tarsalis	Sacramento	1	CO2	6/11/2024	WNV
Sacramento	SAYO 422360	574	Cx pipiens	Sacramento	11	CO2	6/5/2024	WNV
Tulare	DLTA 85194	1566	Cx quinquefasciatus	Visalia	50	GRVD	6/7/2024	SLEV

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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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