

California Arbovirus Surveillance Bulletin #9

Week 23 Friday, June 7, 2024



WEEKLY UPDATE

Humans

No human infections have been reported in 2024.

Dead Birds

A total of 2 new West Nile virus (WNV) positive dead birds were reported from 2 counties: Sacramento (1) and San Joaquin (1). **These are the first detections of WNV activity in Sacramento County and San Joaquin County this year.** In 2024, 19 WNV positive dead birds have been reported from 7 counties. At this time last year, 16 WNV positive dead birds had been reported from 5 counties.

Mosquito Pools

West Nile virus

A total of 27 new WNV positive mosquito pools were reported from 1 county: Riverside (27). In 2024, 52 WNV positive mosquito pools have been reported from 6 counties. At this time last year, 15 WNV positive mosquito pools had been reported from 7 counties.

St. Louis encephalitis virus

A single (1) new St. Louis encephalitis virus (SLEV) positive mosquito pool was reported from 1 county: Fresno (1). In 2024, 2 SLEV positive mosquito pools have been reported from 1 county: Fresno (2). At this time last year, 2 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	1,993	2,139
No. Positive Counties	9	11
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	16 / 350	19 / 446
No. Positive Mosquito Pools / No. Tested	15 / 9,380	52 / 11,083
No. Seroconversions / No. Tested	0 / 715	0 / 752

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YTD WNV Activity by Element and County, 2024					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			5	1	
Contra Costa			1		
Fresno				2	
Los Angeles				1	
Riverside				45	
Sacramento			1		
San Diego			2		
San Joaquin			1		
San Mateo			4		
Santa Clara			5	2	
Stanislaus				1	
Totals			19	52	

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	2 / 77					
	YTD	19 / 446					
Chicken Sera	Week	0 / 189	0 / 189	0 / 189			
	YTD	0 / 752	0 / 752	0 / 752			
Mosquito Pools	Week	27 / 1,331	1 / 1,331	0 / 1,331	0 / 1	0 / 1	0 / 1
	YTD	52 / 11,084	2 / 10,486	0 / 10,486	0 / 111	0 / 111	0 / 111

POSITIVES

Dead Birds

County	Submitting Agency	City	Zip Code	Species	Date Reported	Status
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	5/31/2024	WNV
San Joaquin	San Joaquin Co MVCD	Lockeford	95237	Hummingbird	6/3/2024	WNV

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Mosquito Pools

County	Site	Pool No	Species	City	Pool Size	Trap	Collected	Virus
Fresno	FRNO 8007	255	Cx quinquefasciatus	Fresno	50	GRVD	6/4/2024	SLEV
Riverside	COAV 0	3022	Cx tarsalis	Indio	50	CO2	6/6/2024	WNV
Riverside	COAV 0	3063	Cx tarsalis	Indio	50	CO2	6/6/2024	WNV
Riverside	COAV 0	2795	Cx tarsalis	Indio	50	CO2	5/31/2024	WNV
Riverside	COAV 0	2853	Cx tarsalis	Indio	50	CO2	5/31/2024	WNV
Riverside	COAV 33	2847	Cx tarsalis	Thermal	50	CO2	5/31/2024	WNV
Riverside	COAV 33	2850	Cx tarsalis	Thermal	50	CO2	5/31/2024	WNV
Riverside	COAV 33	2851	Cx tarsalis	Thermal	26	CO2	5/31/2024	WNV
Riverside	COAV 121	3001	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 122	2969	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 123	2994	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 45	2887	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 45	2889	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 45	2890	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 45	2891	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 45	3067	Cx tarsalis	Mecca	50	CO2	6/6/2024	WNV
Riverside	COAV 46	2903	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 54	2897	Cx tarsalis	North Shore	50	CO2	6/4/2024	WNV
Riverside	COAV 54	2898	Cx tarsalis	North Shore	50	CO2	6/4/2024	WNV
Riverside	COAV 54	2899	Cx tarsalis	North Shore	50	CO2	6/4/2024	WNV
Riverside	COAV 54	2900	Cx tarsalis	North Shore	43	CO2	6/4/2024	WNV
Riverside	COAV 54	2901	Cx quinquefasciatus	North Shore	19	CO2	6/4/2024	WNV
Riverside	COAV 55	2964	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 55	2966	Cx tarsalis	Mecca	50	CO2	6/4/2024	WNV
Riverside	COAV 56	2991	Cx tarsalis	North Shore	50	CO2	6/4/2024	WNV
Riverside	COAV 57	2896	Cx tarsalis	North Shore	50	CO2	6/4/2024	WNV
Riverside	COAV 540	2628	Cx quinquefasciatus	Mecca	30	CO2	5/29/2024	WNV
Riverside	COAV 611	3020	Cx tarsalis	Mecca	17	CO2	6/6/2024	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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