

California Arbovirus Surveillance Bulletin #10

Week 24 Friday, June 16, 2023



WEEKLY UPDATE

Humans

No human infections have been reported in 2023.

Dead Birds

A total of 15 new West Nile virus (WNV) positive dead birds were reported this week from 4 counties: Los Angeles (6), Riverside (2), Sacramento (6), and Tulare (1). **This is the first WNV positive dead bird reported from Tulare County this year.** In 2023, 31 WNV positive dead birds have been reported in 6 counties. At this time last year, 10 WNV positive dead birds had been reported from 5 counties.

Mosquito Pools

West Nile virus

A total of 16 new WNV positive mosquito pools were identified from 6 counties: Kern (1), Los Angeles (3), San Joaquin (4), Stanislaus (2), Tulare (5), and Yolo (1). **This is the first detection of WNV activity in Yolo County this year.** In 2023, 31 WNV positive mosquito pools have been reported from 8 counties. At this time last year, 56 WNV positive mosquito pools had been reported from 8 counties.

St. Louis encephalitis virus

A single St. Louis encephalitis virus (SLEV) positive mosquito pool was reported this week from Riverside County (1). In 2023, 3 SLEV positive mosquito pools from 2 counties have been reported: Kern (1) and Riverside (2). At this time last year, 0 SLEV positive pools had been reported.

Sentinel Chickens

No seroconversions have been reported in 2023.

2022 & 2023 YTD West Nile Virus Comparisons		
	2022	2023
Total No. Dead Bird Reports	2,131	2,165
No. Positive Counties	11	10
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	10 / 488	31 / 410
No. Positive Mosquito Pools / No. Tested	56 / 8,934	31 / 11,571
No. Seroconversions / No. Tested	0 / 1,189	0 / 986

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YTD WNV Activity by Element and County, 2023					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			2	1	
Kern				2	
Los Angeles			8	8	
Riverside			3		
Sacramento			10	2	
San Joaquin				8	
Santa Clara			7		
Stanislaus				3	
Tulare			1	6	
Yolo				1	
Totals			31	31	

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	15 / 60					
	YTD	31 / 410					
Chicken Sera	Week	0 / 271	0 / 271	0 / 271			
	YTD	0 / 986	0 / 986	0 / 986			
Mosquito Pools	Week	16 / 2,191	1 / 2,191	0 / 2,191	0 / 0	0 / 0	0 / 0
	YTD	31 / 11,571	3 / 11,536	0 / 11,536	0 / 98	0 / 98	0 / 98

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Los Angeles	Greater Los Angeles Co VCD	Woodland Hills	91367	House Wren	6/6/2023	WNV
Los Angeles	San Gabriel Valley MVCD	Covina	91722	American Crow	6/12/2023	WNV
Los Angeles	San Gabriel Valley MVCD	Covina	91722	Unknown - songbird	6/13/2023	WNV
Los Angeles	San Gabriel Valley MVCD	Covina	91722	Unknown - songbird	6/13/2023	WNV
Los Angeles	San Gabriel Valley MVCD	Covina	91723	American Crow	6/13/2023	WNV

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Los Angeles	San Gabriel Valley MVCD	Covina	91723	American Crow	6/14/2023	WNV
Riverside	Northwest Mosquito VCD	Norco	92860	American Crow	6/8/2023	WNV
Riverside	Northwest Mosquito VCD	Norco	92860	American Crow	6/8/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95829	Yellow-billed Magpie	6/7/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95833	Yellow-billed Magpie	6/9/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95823	California Scrub-Jay	6/9/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95818	American Crow	6/11/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95833	American Crow	6/11/2023	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95833	American Crow	6/11/2023	WNV
Tulare	Delta MVCD	Visalia	93291	American Crow	6/13/2023	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap	Collected	Virus
Kern	KERN 12	496	Cx quinquefasciatus	Bakersfield	26	GRVD	6/7/2023	WNV
Los Angeles	SGVA 0	197	Cx quinquefasciatus	West Covina	50	GRVD	6/15/2023	WNV
Los Angeles	SGVA 1280	192	Cx quinquefasciatus	Covina	50	GRVD	6/15/2023	WNV
Los Angeles	SGVA 972	191	Cx quinquefasciatus	Covina	50	GRVD	6/15/2023	WNV
Riverside	COAV 55	2760	Cx tarsalis	Mecca	50	CO2	6/13/2023	SLEV
San Joaquin	SJCM 2151	481	Cx tarsalis	Tracy	50	CO2	6/13/2023	WNV
San Joaquin	SJCM 8094	371	Cx tarsalis	Manteca	50	CO2	6/13/2023	WNV
San Joaquin	SJCM 8094	374	Cx tarsalis	Manteca	50	CO2	6/13/2023	WNV
San Joaquin	SJCM 8202	431	Cx tarsalis	Tracy	50	CO2	6/13/2023	WNV
Stanislaus	TRLK 1305	607	Cx tarsalis	Patterson	50	CO2	6/13/2023	WNV
Stanislaus	TRLK 312	573	Cx tarsalis	Newman	50	CO2	6/13/2023	WNV
Tulare	DLTA 8521	1935	Cx quinquefasciatus	Visalia	50	GRVD	6/6/2023	WNV
Tulare	DLTA 8527	1971	Cx quinquefasciatus	Visalia	35	GRVD	6/7/2023	WNV
Tulare	DLTA 8528	1932	Cx quinquefasciatus	Visalia	17	GRVD	6/6/2023	WNV
Tulare	DLTA 8534	1667	Cx quinquefasciatus	Visalia	37	BGSENT	6/2/2023	WNV
Tulare	DLTA 8534	1668	Cx tarsalis	Visalia	50	BGSENT	6/2/2023	WNV
Yolo	SAYO 136010	948	Cx tarsalis	Woodland	44	CO2	6/13/2023	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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