

California Arbovirus Surveillance Bulletin #7

Week 21 Friday, May 26, 2023



WEEKLY UPDATE

Humans

No human infections have been reported in 2023.

Dead Birds

A total of 5 new West Nile virus (WNV) positive dead birds were reported this week from 2 counties: Riverside (1), and Santa Clara (4). **This is the first detection of WNV activity in Riverside County this year.** In 2023, 10 WNV positive dead birds have been reported in 3 counties. At this time last year, 1 WNV positive dead bird had been reported from one county.

Mosquito Pools

A single new WNV positive mosquito pool was reported this week from Tulare County (1). **This is the first detection of WNV activity in Tulare County this year.** In 2023, 3 WNV positive mosquito pools have been reported from 3 counties. At this time last year, 5 WNV positive mosquito pools had been reported from 4 counties.

Sentinel Chickens

No seroconversions have been reported in 2023.

2022 & 2023 YTD West Nile Virus Comparisons		
	2022	2023
Total No. Dead Bird Reports	1,582	1,649
No. Positive Counties	5	6
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	1 / 307	10 / 271
No. Positive Mosquito Pools / No. Tested	5 / 5,432	3 / 6,142
No. Seroconversions / No. Tested	0 / 567	0 / 440

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YTD WNV Activity by Element and County, 2023					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda				1	
Los Angeles				1	
Riverside			1		
Sacramento			2		
Santa Clara			7		
Tulare				1	
Totals			10	3	

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	5 / 53					
	YTD	10 / 271					
Chicken Sera	Week	0 / 146	0 / 146	0 / 146			
	YTD	0 / 440	0 / 440	0 / 440			
Mosquito Pools	Week	1 / 1,878	0 / 1,878	0 / 1,878	0 / 0	0 / 0	0 / 0
	YTD	3 / 6,142	0 / 6,141	0 / 6,141	0 / 51	0 / 51	0 / 51

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Riverside	Northwest Mosquito VCD	Corona	92881	American Crow	5/8/2023	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	5/23/2023	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95120	American Crow	5/24/2023	WNV
Santa Clara	Santa Clara Co VCD	Santa Clara	95051	American Crow	5/19/2023	WNV
Santa Clara	Santa Clara Co VCD	Santa Clara	95050	American Crow	5/22/2023	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap	Collected	Virus
Tulare	DLTA 8534	590	Cx. quinquefasciatus	Visalia	31	BGSENT	5/17/23	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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