

California Arbovirus Surveillance Bulletin #3

Week 17 Friday, April 28, 2023



WEEKLY UPDATE

Humans

No human infections have been reported in 2023.

Dead Birds

No new West Nile virus (WNV) positives were reported this week. In 2023, 1 WNV positive bird has been reported in 1 county. At this time last year, no dead birds had been reported positive.

Mosquito Pools

No new WNV positives were reported this week. In 2023, 2 WNV positive mosquito pools have been reported from 2 counties. At this time last year, 2 WNV positive mosquito 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	866	1,117
No. Positive Counties	2	3
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	0 / 116	1 / 66
No. Positive Mosquito Pools / No. Tested	2 / 2,242	2 / 1,974
No. Seroconversions / No. Tested	0 / 65	0 / 0

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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	
Santa Clara			1		
Totals			1	2	

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	0 / 18					
	YTD	1 / 66					
Chicken Sera	Week	0 / 0	0 / 0	0 / 0			
	YTD	0 / 0	0 / 0	0 / 0			
Mosquito Pools	Week	0 / 569	0 / 569	0 / 569	0 / 0	0 / 0	0 / 0
	YTD	2 / 1,974	0 / 1,973	0 / 1,973	0 / 4	0 / 4	0 / 4

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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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