

California Arbovirus Surveillance Bulletin #5

Week 19 Friday, May 10, 2024



WEEKLY UPDATE

Humans

No human infections have been reported in 2024.

Dead Birds

No new West Nile virus (WNV) positive dead birds were reported this week. In 2024, 14 WNV positive dead birds have been reported in 5 counties. At this time last year, 3 WNV positive dead birds had been reported from 1 county.

Mosquito Pools

A total of 2 new WNV positive mosquito pools were identified from 2 counties: Los Angeles (1) and Riverside (1). **These are the first detections of WNV activity in Los Angeles and Riverside counties this year.** In 2024, 3 WNV positive mosquito pools have been reported from 3 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 2024.

2023 & 2024 YTD West Nile Virus Comparisons		
	2023	2024
Total No. Dead Bird Reports	1,340	1,190
No. Positive Counties	3	7
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	3 / 145	14 / 159
No. Positive Mosquito Pools / No. Tested	2 / 3,108	3 / 3,979
No. Seroconversions / No. Tested	0 / 11	0 / 49

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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		
Los Angeles				1	
Riverside				1	
San Diego			2		
San Mateo			3		
Santa Clara			3		
Totals			14	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	0 / 27					
	YTD	14 / 159					
Chicken Sera	Week	0 / 41	0 / 41	0 / 41			
	YTD	0 / 49	0 / 49	0 / 49			
Mosquito Pools	Week	2 / 733	0 / 733	0 / 733	0 / 0	0 / 0	0 / 0
	YTD	3 / 3,979	0 / 3,882	0 / 3,882	0 / 94	0 / 94	0 / 94

POSITIVES

Mosquito Pools

County	Site	Pool No	Species	City	Pool Size	Trap	Collected	Virus
Los Angeles	GRLA 2554	5169	Cx quinquefasciatus	Winnetka	50	GRVD	2024-05-02	WNV
Riverside	COAV 424	1782	Cx quinquefasciatus	Coachella	15	GRVD	2024-05-07	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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