

California Arbovirus Surveillance Bulletin #5

Week 18 Friday, May 6, 2022



Weekly Update

Humans

No human infections have been reported in 2022.

Dead Birds

No positive dead birds have been reported in 2022.

Mosquito Pools

One West Nile virus (WNV) positive mosquito pool was reported this week from Fresno County. This is the first detection of WNV activity in Fresno County this year. In 2022, three WNV positive mosquito pools have been reported from three counties. At this time last year, no positive mosquito pools had been reported.

Sentinel Chickens

No seroconversions have been reported in 2022.

2021 & 2022 YTD West Nile Virus Comparisons		
	2021	2022
Total # Dead Bird Reports	1,482	1,016
# Positive Counties	0	3
# Human Cases	0	0
# Positive Dead Birds / # Tested	0 / 300	0 / 128
# Positive Mosquito Pools / # Tested	0 / 2,997	3 / 2,915
# Seroconversions / # Tested	0 / 385	0 / 65

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YTD WNV Activity by Element and County, 2022					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Fresno				1	
Orange				1	
Riverside				1	
Totals	0	0	0	3	0

TESTING SUMMARIES

Humans

		WNV	SLEV	WEEV
Human Cases	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	12	0
	YTD	128	0

Sentinel Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	0	0	0	0
	YTD	65	0	0	0

Mosquito Pools

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	1 / 673	0 / 673	0 / 673	0 / 0	0 / 0	0 / 0
	YTD	3 / 2,915	0 / 2,858	0 / 2,858	0 / 0	0 / 0	0 / 0

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NEW POSITIVES

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	FRNO0259	42	Cx. quinquefasciatus	Fresno	6	GRVD	4/28/22	WNV

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 Vectorborne Disease Surveillance System website, <https://maps.vectorsurv.org>.

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