

California Arbovirus Surveillance Bulletin #6

Week 19 Friday, May 13, 2022



Weekly Update

Humans

No human infections have been reported in 2022.

Dead Birds

One West Nile virus (WNV) positive dead bird was reported this week from Contra Costa County. **This is the first WNV positive dead bird detected in California, and the first indication of WNV activity in Contra Costa County this year.** At this time last year, one WNV positive dead bird had been reported from one county.

Mosquito Pools

No new positives were reported this week. 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	1,626	1,167
# Positive Counties	1	4
# Human Cases	0	0
# Positive Dead Birds / # Tested	1 / 351	1 / 188
# Positive Mosquito Pools / # Tested	0 / 4,027	3 / 3,688
# Seroconversions / # Tested	0 / 507	0 / 282

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YTD WNV Activity by Element and County, 2022					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Contra Costa			1		
Fresno				1	
Orange				1	
Riverside				1	
Totals	0	0	1	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	60	1
	YTD	188	1

Sentinel Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	217	0	0	0
	YTD	282	0	0	0

Mosquito Pools

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	0 / 773	0 / 773	0 / 773	0 / 0	0 / 0	0 / 0
	YTD	3 / 3,688	0 / 3,631	0 / 3,631	0 / 0	0 / 0	0 / 0

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NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Contra Costa	Contra Costa MVCD	Brentwood	94513	American Crow	5/4/2022	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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