

California Arbovirus Surveillance Bulletin #6

Week 21 Friday, May 22, 2020



Weekly Update

Humans

No human infections have been reported in 2020.

Dead Birds

No positive dead birds were reported this week. To date this year, five West Nile virus (WNV) positive dead birds have been reported from two counties. At this time last year, one WNV positive dead bird had been reported from one county (San Diego).

Mosquito Pools

West Nile virus

No WNV positive mosquito pools have been reported in 2020. At this time last year, 23 WNV positive mosquito pools had been reported from 3 counties.

St. Louis encephalitis virus

Seven mosquito pools from Riverside County tested positive for St. Louis encephalitis virus (SLEV) this week; this is the first detection of SLEV activity in California in 2020.

Sentinel Chickens

No seroconversions have been reported in 2020.

YTD WNV Activity by Element and County, 2020				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Napa		1		
Santa Clara		4		
Totals	0	5	0	0

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.maps.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC websites: www.cdc.gov and www.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html

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2019 & 2020 YTD West Nile Virus Comparisons		
	2019	2020
Total # Dead Bird Reports	1,558	1,329
# Positive Counties	4	2
# Human Cases	0	0
# Positive Dead Birds / # Tested	1 / 398	5 / 274
# Positive Mosquito Pools / # Tested	23 / 5,548	0 / 4,671
# Seroconversions / # Tested	0 / 1,287	0 / 597

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	51	0
	YTD	274	5

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	132	0	0	0
	YTD	597	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	0 / 803	7 / 803	0 / 770	0 / 0	0 / 0	0 / 0
	YTD	0 / 4,671	7 / 4,646	0 / 4,531	0 / 1	0 / 1	0 / 1

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NEW POSITIVES

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap	Collected	Virus
Riverside	COAV536	1838	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/19/20	SLEV
Riverside	COAV536	1839	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/19/20	SLEV
Riverside	COAV536	1841	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/19/20	SLEV
Riverside	COAV536	1981	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/21/20	SLEV
Riverside	COAV536	1983	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/21/20	SLEV
Riverside	COAV0000	1990	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/21/20	SLEV
Riverside	COAV0000	1991	Cx. tarsalis	Vista Santa Rosa	50	CO2	5/21/20	SLEV

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.

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