

California Arbovirus Surveillance Bulletin #10

Week 23 Friday, June 7, 2019



Weekly Update

Humans

No human infections have been reported in 2019.

Dead Birds

No positive dead birds were reported this week. In 2019, one West Nile virus (WNV) positive dead bird has been reported from San Diego County. At this time last year, 14 WNV positive dead birds had been reported from 7 counties.

Mosquito Pools

West Nile virus

A total of 43 WNV positive mosquito pools were reported this week from Riverside (42) and Tulare (1) counties. In 2019, 84 WNV positive mosquito pools have been reported from 3 counties. At this time last year, 4 WNV positive mosquito pools had been reported from 3 counties.

St. Louis encephalitis virus

No new positives were reported this week. In 2019, 2 mosquito pools from Tulare County have tested positive for St. Louis encephalitis virus (SLEV). At this time last year, 2 SLEV positive mosquito pools had been reported from 1 county.

Sentinel Chickens

No seroconversions have been reported in 2019.

YTD WNV Activity by Element and County, 2019				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Orange			1	
Riverside			79	
San Diego		1		
Tulare			4	
Totals	0	1	84	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.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC websites: www.cdc.gov and https://www.cdc.gov/arbovet/maps/ADB_Diseases_Map/index.html

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2018 & 2019 YTD West Nile Virus Comparisons		
	2018	2019
Total # Dead Bird Reports	1,996	1,905
# Positive Counties	8	4
# Human Cases	0	0
# Positive Dead Birds / # Tested	14 / 438	1 / 516
# Positive Mosquito Pools / # Tested	4 / 8,054	84 / 8,130
# Seroconversions / # Tested	0 / 2,514	0 / 1,959

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	91	0
	YTD	516	1

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	291	0	0	0
	YTD	1,959	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	43 / 1,465	0 / 1,311	0 / 1,151	0 / 0	0 / 0	0 / 0
	YTD	84 / 8,130	2 / 7,449	0 / 7,207	0 / 82	0 / 82	0 / 82

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POSITIVES

Mosquito pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Riverside	COAV0000	2541	Cx. quinquefasciatus		31	GRVD	5/31/19	WNV
Riverside	COAV0000	2552	Cx. quinquefasciatus		35	CO2	6/4/19	WNV
Riverside	COAV0000	2554	Cx. quinquefasciatus		46	GRVD	6/4/19	WNV
Riverside	COAV0000	2580	Cx. quinquefasciatus		50	CO2	5/31/19	WNV
Riverside	COAV0000	2633	Cx. quinquefasciatus		50	GRVD	6/4/19	WNV
Riverside	COAV0000	2634	Cx. quinquefasciatus		39	GRVD	6/4/19	WNV
Riverside	COAV121	2825	Cx. tarsalis	Mecca	50	CO2	6/6/19	WNV
Riverside	COAV122	2748	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV123	2742	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV123	2745	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV200	2621	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV208	2461	Cx. quinquefasciatus	Palm Springs	50	CO2	5/30/19	WNV
Riverside	COAV208	2464	Cx. quinquefasciatus	Palm Springs	50	CO2	5/30/19	WNV
Riverside	COAV208	2465	Cx. quinquefasciatus	Palm Springs	50	CO2	5/30/19	WNV
Riverside	COAV208	2592	Cx. quinquefasciatus	Palm Springs	50	CO2	6/4/19	WNV
Riverside	COAV208	2725	Cx. quinquefasciatus	Palm Springs	50	CO2	6/5/19	WNV
Riverside	COAV208	2726	Cx. quinquefasciatus	Palm Springs	50	CO2	6/5/19	WNV
Riverside	COAV208	2727	Cx. quinquefasciatus	Palm Springs	50	CO2	6/5/19	WNV
Riverside	COAV27	2597	Cx. tarsalis	North Shore	50	CO2	6/4/19	WNV
Riverside	COAV301	2801	Cx. quinquefasciatus	Indio	50	GRVD	6/6/19	WNV
Riverside	COAV301	2802	Cx. quinquefasciatus	Indio	50	GRVD	6/6/19	WNV
Riverside	COAV302	2819	Cx. quinquefasciatus	Rancho Mirage	50	CO2	6/6/19	WNV
Riverside	COAV321	2830	Cx. quinquefasciatus	Rancho Mirage	44	GRVD	6/6/19	WNV
Riverside	COAV321	2838	Cx. quinquefasciatus	Rancho Mirage	47	CO2	6/6/19	WNV
Riverside	COAV33	2782	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV33	2783	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV33	2785	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV33	2786	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV346	2652	Cx. quinquefasciatus	Thermal	50	GRVD	6/4/19	WNV
Riverside	COAV35	2608	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV35	2610	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV37	2771	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV423	2590	Cx. quinquefasciatus	Indio	43	CO2	6/4/19	WNV
Riverside	COAV428	2548	Cx. quinquefasciatus	Indio	50	GRVD	6/4/19	WNV
Riverside	COAV428	2549	Cx. quinquefasciatus	Indio	50	GRVD	6/4/19	WNV
Riverside	COAV45	2760	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV45	2761	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV610	2687	Cx. tarsalis		50	CO2	6/4/19	WNV
Riverside	COAV611	2762	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV611	2763	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV611	2764	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Riverside	COAV68	2667	Cx. tarsalis	Mecca	50	CO2	6/4/19	WNV
Tulare	DLTA8531	533	Cx. quinquefasciatus	Visalia	30	GRVD	6/4/19	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.

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