

California Arbovirus Surveillance Bulletin #9

Week 24 Friday, June 12, 2020



Weekly Update

Humans

No human infections have been reported in 2020.

Dead Birds

No West Nile virus (WNV) positive dead birds were reported this week. In 2020, a total of eight WNV positive dead birds have been reported from four counties. At this time last year, three WNV positive dead bird had been reported from two counties.

Mosquito Pools

West Nile virus

A total of 19 WNV positive mosquito pools were reported this week from 5 counties: Riverside (2), Sacramento (1), Santa Clara (3), Stanislaus (12), and Tulare (1). **This is the first WNV positive mosquito pool reported from Sacramento County this year.** In 2020, a total of 48 WNV positive pools have been reported from 8 counties. At this time last year, 157 WNV positive mosquito pools had been reported from 5 counties.

St. Louis encephalitis virus

One St. Louis encephalitis virus (SLEV) positive mosquito pool was reported this week from Fresno County. **This is the first detection of SLEV activity in Fresno County this year.** In 2020, a total of 32 SLEV positive mosquito pools have been reported from Fresno (1) and Riverside (31) counties. At this time last year, two SLEV positive mosquito pools had been reported from one county.

Sentinel Chickens

No seroconversions have been reported in 2020.

2019 & 2020 YTD West Nile Virus Comparisons		
	2019	2020
Total # Dead Bird Reports	2,093	1,893
# Positive Counties	6	10
# Human Cases	0	0
# Positive Dead Birds / # Tested	3 / 570	8 / 414
# Positive Mosquito Pools / # Tested	157 / 9,736	48 / 8,862
# Seroconversions / # Tested	0 / 2,330	0 / 1,382

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YTD WNV Activity by Element and County, 2020				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Fresno			1	
Los Angeles			1	
Napa		1		
Riverside			17	
Sacramento		1	1	
San Diego			1	
San Joaquin		1		
Santa Clara		5	6	
Stanislaus			19	
Tulare			2	
Totals	0	8	48	0

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	48	0
	YTD	414	8

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	413	0	0	0
	YTD	1,382	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	19 / 1,593	1 / 1,593	0 / 1,537	0 / 0	0 / 0	0 / 0
	YTD	48 / 8,862	32 / 8,778	0 / 8,521	0 / 70	0 / 70	0 / 70

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NEW POSITIVES

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1046	133	Cx. quinquefasciatus	Fresno	50	GRVD	6/4/20	SLEV
Riverside	COAV0	2703	Cx. quinquefasciatus	Indian Wells	40	GRVD	6/11/20	WNV
Riverside	COAV320	2711	Cx. quinquefasciatus	Palm Desert	11	GRVD	6/11/20	WNV
Sacramento	SAYO233001	988	Cx. pipiens	Elk Grove	3	CO2	6/9/20	WNV
Santa Clara	STCL31816	674	Cx. pipiens	Santa Clara	4	GRVD	6/5/20	WNV
Santa Clara	STCL32223	533	Cx. pipiens	San Jose	1	CO2	5/29/20	WNV
Santa Clara	STCL32260	532	Cx. tarsalis	Milpitas	21	CO2	5/29/20	WNV
Stanislaus	EAST1077	20083	Cx. pipiens	Modesto	30	GRVD	5/27/20	WNV
Stanislaus	EAST1077	20109	Cx. pipiens	Modesto	28	GRVD	6/4/20	WNV
Stanislaus	EAST1088	20087	Cx. pipiens	Modesto	50	GRVD	5/27/20	WNV
Stanislaus	EAST2021	20111	Cx. pipiens	Modesto	17	GRVD	6/4/20	WNV
Stanislaus	TRLK1225	136	Cx. pipiens	Turlock	36	CO2	6/10/20	WNV
Stanislaus	TRLK1301	105	Cx. pipiens	Denair	50	CO2	6/10/20	WNV
Stanislaus	TRLK1301	106	Cx. pipiens	Denair	50	CO2	6/10/20	WNV
Stanislaus	TRLK1302	101	Cx. pipiens	Turlock	50	CO2	6/10/20	WNV
Stanislaus	TRLK17131	133	Cx. pipiens	Turlock	13	CO2	6/10/20	WNV
Stanislaus	TRLK20145	92	Cx. pipiens	Turlock	44	CO2	6/10/20	WNV
Stanislaus	TRLK526	142	Cx. pipiens		47	CO2	6/10/20	WNV
Stanislaus	TRLK536	104	Cx. pipiens	Turlock	42	CO2	6/10/20	WNV
Tulare	DLTA8530	251	Cx. quinquefasciatus	Visalia	10	BGSENT	5/29/20	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.

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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/arbovet/maps/ADB_Diseases_Map/index.html

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