

California Arbovirus Surveillance Bulletin #10

Week 23 Friday, June 8, 2018



Weekly Update

Humans

No human infections have been reported in 2018. At this time last year, 1 human case of West Nile virus (WNV) illness had been reported from Kings County.

Dead Birds

Five WNV positive dead birds were reported this week from five counties: Alameda (1), Humboldt (1), Los Angeles (1), Sacramento (1), and Santa Clara (1). **This is the first detection of WNV in Los Angeles and Humboldt Counties this year.** In 2018, a total of 14 WNV positive dead birds have been reported from 7 counties. At this time last year, 23 WNV positive dead birds had been reported from 9 counties.

Mosquito Pools

West Nile virus

One WNV positive mosquito pool was reported this week from Alameda County. In 2018, 4 mosquito pools have tested positive for WNV from 3 counties. At this time last year, 85 WNV positive mosquito pools had been reported from 8 counties.

St. Louis encephalitis virus

Two mosquito pools from Tulare County tested positive for St. Louis encephalitis virus (SLEV) this week; this is the first detection of SLEV activity in California in 2018.

Sentinel Chickens

No seroconversions have been reported in 2018.

2017 & 2018 YTD West Nile Virus Comparisons		
	2017	2018
Total # Dead Bird Reports	2,527	1,996
# Positive Counties	13	8
# Human Cases	1	0
# Positive Dead Birds / # Tested	23 / 556	14 / 438
# Positive Mosquito Pools / # Tested	85 / 11,411	4 / 8,054
# Seroconversions / # Tested	0 / 2,870	0 / 2,541

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westmile.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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YTD WNV Activity by Element and County, 2018				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda		2	2	
El Dorado		1		
Humboldt		1		
Los Angeles		1		
Sacramento		4	1	
San Bernardino			1	
San Mateo		2		
Santa Clara		3		
Totals	0	14	4	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	100	5
	YTD	438	14

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	369	0	0	0
	YTD	2,541	0	0	0

Mosquitoes

		Positive / Total Tested						
Mosquito Pools		WNV	SLEV	WEEV	CHIK	DENV	ZIKA	
		Week	1 / 1,904	2 / 905	0 / 812	0 / 66	0 / 66	0 / 66
		YTD	4 / 8,054	2 / 6,260	0 / 5,884	0 / 155	0 / 155	0 / 155

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New Positives

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Alameda	Alameda Co MAD	Union City	94587	American Crow	6/5/2018	WNV
Humboldt	Humboldt Co Env Health	Eureka	95503	American Crow	6/4/2018	WNV
Los Angeles	San Gabriel Valley MVCD	Walnut	91789	Sparrow	5/4/2018	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95825	Yellow-billed Magpie	6/4/2018	WNV
Santa Clara	Santa Clara Co VCD	Sunnyvale	94086	American Crow	5/30/2018	WNV

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Alameda	ALCO0031	19593	Cx. tarsalis	Union City	25	CO2	5/29/2018	WNV
Tulare	DLTA8519	948	Cx. quinquefasciatus	Visalia	47	GRVD	6/6/18	SLEV
Tulare	DLTA9401	894	Cx. quinquefasciatus	Visalia	15	GRVD	6/5/18	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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