

California Arbovirus Surveillance Bulletin #9

Week 22 Friday, June 1, 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

Two WNV positive dead bird were reported this week from Sacramento County. In 2018, a total of 9 WNV positive dead birds have been reported from 5 counties. At this time last year, 11 WNV positive dead birds had been reported from 6 counties.

Mosquito Pools

One WNV positive mosquito pool was reported this week from Sacramento County. **This is the first WNV positive mosquito pool detected in Sacramento County this year.** In 2018, 3 mosquito pools have tested positive for WNV from 3 counties. At this time last year, 29 WNV positive mosquito pools had been reported from 7 counties.

Sentinel Chickens

No seroconversions have been reported in 2018.

2017 & 2018 YTD West Nile Virus Comparisons		
	2017	2018
Total # Dead Bird Reports	2,205	1,762
# Positive Counties	11	6
# Human Cases	1	0
# Positive Dead Birds / # Tested	11 / 432	9 / 338
# Positive Mosquito Pools / # Tested	29 / 9,776	3 / 6,150
# Seroconversions / # Tested	0 / 2,427	0 / 2,172

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://wwwn.cdc.gov/arbonet/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		1	1	
El Dorado		1		
Sacramento		3	1	
San Bernardino			1	
San Mateo		2		
Santa Clara		2		
Totals	0	9	3	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	35	2
	YTD	338	9

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	416	0	0	0
	YTD	2,172	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	1 / 1,104	0 / 1,104	0 / 1,006	0 / 0	0 / 0	0 / 0
	YTD	3 / 6,150	0 / 5,355	0 / 5,072	0 / 89	0 / 89	0 / 89

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New Positives

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	California Scrub-Jay	5/28/2018	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	5/29/2018	WNV

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Sacramento	SAYO234013	754	Cx. tarsalis	Elk Grove	50	CO2	5/30/2018	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.
