

California Arbovirus Surveillance Bulletin #5

Week 18 Friday, May 3, 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, 4 WNV positive dead birds had been reported from 2 counties.

Mosquito Pools

No positive mosquitoes were reported this week. In 2019, one WNV positive mosquito pool has been reported from Orange County. At this time last year, one WNV positive mosquito pool had been reported from San Bernardino 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	
San Diego		1		
Totals	0	1	1	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	902	1,110
# Positive Counties	3	2
# Human Cases	0	0
# Positive Dead Birds / # Tested	4 / 153	1 / 233
# Positive Mosquito Pools / # Tested	1 / 2,050	1 / 3,317
# Seroconversions / # Tested	0 / 850	0 / 633

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	39	0
	YTD	233	1

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	228	0	0	0
	YTD	633	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	0 / 656	0 / 578	0 / 578	0 / 0	0 / 0	0 / 0
	YTD	1 / 3,317	0 / 3,147	0 / 3,147	0 / 12	0 / 12	0 / 12

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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.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6253 or email: tina.feiszli@cdph.ca.gov.