California Arbovirus Surveillance Bulletin #6

Week 19 Friday, May 10, 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, four WNV positive dead birds had been reported from two counties.

Mosquito Pools

A total of three WNV positive mosquito pools were reported this week from Riverside County; this is the first detection of WNV activity in Riverside County this year. In 2019, four WNV positive mosquito pools have been reported from two counties. At this time last year, one WNV positive mosquito pool had been reported from one 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			3				
San Diego		1					
Totals	0	1	4	0			

Website Information: For updated information on WNV in California, please visit the California WNV website, <u>www.westnile.ca.gov</u>, or the California Vectorborne Disease Surveillance System website, <u>www.calsurv.org</u>. For national information on WNV and other arboviruses, please visit the CDC websites: <u>www.cdc.gov</u> and <u>https://wwwn.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html</u>

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2018 & 2019 YTD West Nile Virus Comparisons						
	2018	2019				
Total # Dead Bird Reports	1,042	1,232				
# Positive Counties	3	3				
# Human Cases	0	0				
# Positive Dead Birds / # Tested	4 / 194	1 / 293				
# Positive Mosquito Pools / # Tested	1 / 2,692	4 / 3,920				
# Seroconversions / # Tested	0 / 1,052	0 / 848				

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead	Week	60	0
Birds	YTD	293	1

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	215	0	0	0
	YTD	848	0	0	0

Mosquitoes

		Positive / Total Tested							
		WNV	SLEV	WEEV	СНІК	DENV	ZIKA		
Mosquito Pools	Week	3 / 603	0 / 495	0 / 495	0/0	0/0	0/0		
	YTD	4 / 3,920	0 / 3,642	0 / 3,642	0 / 12	0 / 12	0 / 12		

Chickens

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POSITIVES

Mosquito pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Riverside	COAV0423	1650	Cx. quinquefasciatus	Indio	46	GRVD	5/9/19	WNV
Riverside	COAV0424	1684	Cx. quinquefasciatus	Coachella	50	GRVD	5/9/19	WNV
Riverside	COAV0537	1719	Cx. tarsalis	Thermal	9	CO2	5/9/19	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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