

California Arbovirus Surveillance Bulletin #7

Week 16 Friday, April 22, 2016



Weekly Update

Humans

No human cases have been reported in 2016.

Dead Birds

This week, a total of 12 birds were tested from four counties. One bird tested positive for West Nile virus (WNV) from Solano County; **this is the first indication of WNV from Solano County this year.** In 2016, 13 dead birds have tested positive for WNV from four counties, whereas at this time last year, eight WNV positive birds had been reported from four counties.

Mosquito Pools

A total of 620 mosquito pools were tested this week from 13 counties. **One mosquito pool tested positive for WNV from Los Angeles County.** In 2016, two WNV positive mosquito pools have been reported from one county, whereas at this time last year, three WNV positive mosquito pools had been reported from three counties.

Sentinel Chickens

A total of 48 sentinel chicken samples were tested this week from one county; no positives were reported. In 2016, no seroconversions have been reported.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	1,914	1,200
# Positive Counties	7	4
# Human Cases	0	0
# Positive Dead Birds / # Tested	8 / 224	13 / 152
# Positive Mosquito Pools / # Tested	3 / 1,090	2 / 2,233
# Seroconversions / # Tested	0 / 788	0 / 181

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YTD WNV Activity by Element and County, 2016				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Los Angeles		1	1	
San Diego		8		
Santa Clara		3		
Solano		1		
Totals	0	13	1	0

***A previously reported positive bird from Orange County has been removed

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	12	1
	YTD	152	13

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	48	0	0	0
	YTD	181	0	0	0
Mosquito Pools	Week	620	1	0	0
	YTD	2,233	2	0	0

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Solano	Solano Co MAD	Fairfield	94533	American Crow	4/19/2016	WNV

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Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Los Angeles	GRLA2065	118	Cx. quinquefasciatus	Gardena	25	GRVD	4/15/2016	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 or confirmation.

Dead Birds

Oral swab samples from corvids are collected onto RNA preservation cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by the singleplex RT-PCR Taqman assay and confirmed with a second primer set. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for the presence of antibodies to West Nile, western equine encephalomyelitis, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR.

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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 website, www.cdc.gov, and the USGS website, www.westmilemaps.usgs.gov
