California Arbovirus Surveillance Bulletin #8

Week 16 Friday, April 24, 2015



Weekly Update

Humans

No human infections have been reported in 2015.

Dead Birds

One West Nile virus (WNV) positive dead bird was reported this week from San Mateo County. **This is the first detection of WNV in San Mateo County this year.** To date this year, eight birds have tested positive for WNV from four counties. At this time last year, twelve WNV positive birds had been detected in four counties.

Mosquito Pools

One WNV positive mosquito pool was reported from Riverside County this week. **This is the first detection of WNV in Riverside County in 2015.** To date this year, three WNV positive mosquito pools have been reported from three counties. At this time last year, two WNV positive mosquito pools had been detected from one county (San Bernardino).

Sentinel Chickens

No seroconversions have been reported in 2015.

2014 & 2015 YTD West Nile Virus Comparisons							
	2014	2015					
Total # Dead Bird Reports	1,058	1,914					
# Positive Counties	5	7					
# Human Cases	0	0					
# Positive Dead Birds / # Tested	12 / 87	8 / 224					
# Positive Mosquito Pools / # Tested	2 / 564	3 / 1,090					
# Seroconversions / # Tested	1 / 762	0 / 788					

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 website, <u>www.cdc.gov</u>, and the USGS website, <u>www.westnilemaps.usgs.gov</u>

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YTD Activity by Element and County, 2015								
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens				
Alameda		1						
Los Angeles			1					
Riverside			1					
San Diego		3						
San Mateo		1						
Santa Barbara			1					
Santa Clara		3						
Totals	0	8	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	Week	11	1
Birds	YTD	224	8

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive	
	Chicken Sera	Week	359	0	0	0
	onioken oera	YTD	788	0	0	0
	Mosquito Pools	Week	146	1	0	0
		YTD	1,090	3	0	0

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NEW POSITIVES

Dead Birds

County Agency		City	Zip	Species	Reported	Virus
San Mateo	San Mateo Co MAD	Menlo Park	94025	American Crow	4/17/2015	WNV

Mosquitoes

County	Site Code	Pool #	ol # Species City	# in Pool	Trap Type	Collected	Virus	
Riverside	COAV0311	982	Cx. quinquefasciatus	Indio	5	Gravid	4/23/2015	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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