

California Arbovirus Surveillance Bulletin #9

Week 17 Friday, May 1, 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 Diego County. To date this year, nine birds have tested positive for WNV from four counties. At this time last year, thirteen WNV positive birds had been detected in five counties.

Mosquito Pools

Two WNV positive mosquito pools were reported this week from Riverside and Tulare counties. **This is the first detection of WNV in Tulare County in 2015.** To date this year, five WNV positive mosquito pools have been reported from four counties. At this time last year, four 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	1,193	2,116
# Positive Counties	6	8
# Human Cases	0	0
# Positive Dead Birds / # Tested	13 / 121	9 / 248
# Positive Mosquito Pools / # Tested	4 / 971	5 / 2,168
# Seroconversions / # Tested	1 / 1,053	0 / 879

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

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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			2	
San Diego		4		
San Mateo		1		
Santa Barbara			1	
Santa Clara		3		
Tulare			1	
Totals	0	9	5	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	24	1
	YTD	248	9

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	91	0	0	0
	YTD	879	0	0	0
Mosquito Pools	Week	1,078	2	0	0
	YTD	2,168	5	0	0

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NEW POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus
San Diego	San Diego Co VCP	San Diego	92122	American Crow	4/24/2015	WNV

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Riverside	COAV0311	1005	Cx. quinquefasciatus	Indio	14	Gravid	4/28/2015	WNV
Tulare	DLTA9506	56	Cx. quinquefasciatus	Visalia	25	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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