

California Arbovirus Surveillance Bulletin #1

Week 10 Friday, March 11, 2016



Weekly Update

Humans

No human infections have been reported in 2016.

Dead Birds

A total of 9 West Nile virus (WNV) positive dead birds have been detected thus far in 2016 from 4 counties: Los Angeles (1), Orange (1), San Diego (6), and Santa Clara (1). At this time last year, one WNV positive bird had been reported from Alameda County.

Mosquito Pools

No positive mosquito pools have been reported in 2016.

Sentinel Chickens

No seroconversions have been reported in 2016.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	1,270	708
# Positive Counties	1	4
# Human Cases	0	0
# Positive Dead Birds / # Tested	1 / 128	9 / 88
# Positive Mosquito Pools / # Tested	0 / 248	0 / 279
# Seroconversions / # Tested	0 / 96	0 / 98

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

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YTD WNV Activity by Element and County, 2016				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Los Angeles		1		
Orange		1		
San Diego		6		
Santa Clara		1		
Totals	0	9	0	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	9	0
	YTD	88	9

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	0	0	0	0
	YTD	98	0	0	0
Mosquito Pools	Week	46	0	0	0
	YTD	279	0	0	0

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POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Collected	Virus
Los Angeles	Los Angeles Co Veterinarian	Calabasas	91302	American Crow	2/10/2016	WNV
Orange	Orange Co VCD	Huntington Beach	92805	Red-tailed Hawk	1/16/2016	WNV
San Diego	San Diego Co VCP	Encinitas	92024	Cooper's Hawk	1/20/2016	WNV
San Diego	San Diego Co VCP	Escondido	92027	American Crow	1/26/2016	WNV
San Diego	San Diego Co VCP	San Diego	92110	American Crow	2/1/2016	WNV
San Diego	San Diego Co VCP	Chula Vista	91910	American Crow	2/17/2016	WNV
San Diego	San Diego Co VCP	Del Mar	92014	American Crow	2/29/2016	WNV
San Diego	San Diego Co VCP	Del Mar	92014	American Crow	2/29/2016	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95120	American Crow	1/25/2016	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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