

California Arbovirus Surveillance Bulletin #13

Week 20 Friday, May 16, 2014



WEEKLY UPDATE

Humans

No human cases or asymptomatic infections have been reported in 2014.

Dead Birds

A total of five West Nile virus (WNV) positive dead birds were reported this week from the following three counties: Fresno (1), Tulare (3), and Santa Clara (1). **These are first indications of WNV activity in Fresno and Tulare counties this year.** To date this year, 18 birds have tested positive for WNV from seven counties. At this time last year, two WNV dead positive birds had been detected in Los Angeles and Yuba counties.

Mosquito Pools

Two positive mosquito pools were reported this week from two counties: Los Angeles (1), and Sonoma (1). This is the first WNV positive mosquito sample from Los Angeles County this year, and the **first indication of WNV activity in Sonoma County this year.** To date this year, 7 mosquito pools from 3 counties have tested positive for WNV. At this time last year, two WNV positive mosquito pools had been detected in Fresno and Tulare counties.

Sentinel Chickens

No seroconversions were reported this week. To date this year, one WNV positive chicken has been reported from Los Angeles County. At this time last year, no seroconversions had been detected.

YTD Activity by Element and County, 2014				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Contra Costa		1		
Fresno		1		
Lake		3		
Los Angeles		2	1	1
San Bernardino			5	
San Joaquin		1		
Santa Clara		7		
Sonoma			1	
Tulare		3		
Totals	0	18	7	1

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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

2013 & 2014 YTD West Nile Virus Comparisons		
	2013	2014
Total # Dead Bird Reports	2,736	1,855
# Positive Counties	4	7
# Human Cases	0	0
# Positive Dead Birds / # Tested	2 / 459	18 / 219
# Positive Mosquito Pools / # Tested	2 / 2,293	7 / 2,481
# Seroconversions / # Tested	0 / 2,283	1 / 2,050

TESTING SUMMARIES

Humans

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	0	0	0	0	0	0
	YTD	0	0	0	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	45	5
	YTD	219	18

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	245	0	0	0
	YTD	2,050	1	0	0
Mosquito Pools	Week	710	2	0	0
	YTD	2,481	7	0	0

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Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Fresno	Consolidated MAD	Fresno	93710	American Crow	5/8/2014	WNV	Recent	RAMP
Tulare	Delta VCD	Visalia	93277	American Crow	5/13/2014	WNV	Recent	RT-PCR
Tulare	Delta VCD	Visalia	93292	Western Scrub-Jay	5/12/2014	WNV	Recent	RT-PCR
Tulare	Delta VCD	Visalia	93277	American Crow	5/12/2014	WNV	Recent	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	5/12/2014	WNV	Recent	RT-PCR

Mosquitoes

County	Site Code	Pool #	City	Species	# in Pool	Trap Type	Collected	Virus	Method
Los Angeles	GRLA2574	5115	Sherman Oaks	Cx. quinquefasciatus	50	GRVD	5/8/2014	WNV	RTPCR
Sonoma	MARN106	119	Sonoma	Cx. tarsalis	50	CO2	5/7/2014	WNV	RTPCR

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.

Horses:

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

Dead Birds

Oral swab samples from corvids are collected onto RNase 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.

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 (WEEV), and St. Louis encephalitis (SLEV) viruses by EIA and IFA. Positive samples are confirmed by western-blot or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for WEEV, SLEV, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation 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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