

California Arbovirus Surveillance Bulletin #9

Week 16 Friday, April 18, 2014



WEEKLY UPDATE

Humans

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

Dead Birds

No West Nile virus (WNV) positive dead birds were reported this week. To date this year, twelve birds have tested positive for WNV from Lake (3), Los Angeles (2), San Joaquin (1), and Santa Clara (6) counties. At this time last year, one WNV dead positive bird had been detected in Los Angeles County.

Mosquito Pools

Two WNV positive mosquito pools collected in San Bernardino County were reported this week. **These are the first WNV positive mosquitoes detected in California this year, and the first indication of WNV activity in San Bernardino County in 2014.**

At this time last year, no WNV positive mosquito pools had been reported.

Sentinel Chickens

No new seroconversions have been detected. 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
Lake		3		
Los Angeles		2		1
San Bernardino			2	
San Joaquin		1		
Santa Clara		6		
Totals	0	12	2	1

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2013 & 2014 YTD West Nile Virus Comparisons		
	2013	2014
Total # Dead Bird Reports	1,791	1,058
# Positive Counties	1	5
# Human Cases	0	0
# Positive Dead Birds / # Tested	1 / 281	12 / 87
# Positive Mosquito Pools / # Tested	0 / 619	2 / 564
# Seroconversions / # Tested	0 / 749	1 / 762

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	2	0
	YTD	87	12

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	235	0	0	0
	YTD	762	1	0	0
Mosquito Pools	Week	387	2	0	0
	YTD	564	2	0	0

New Positives

Mosquito Pools

County	Site Code	Pool #	City	Species	# in Pool	Trap Type	Collected	Virus	Method
San Bernardino	WVAL6004	290	Ontario	Cx. quinquefasciatus	50	GRVD	4/15/2014	WNV	RT-PCR
San Bernardino	WVAL6004	291	Ontario	Cx. quinquefasciatus	35	GRVD	4/15/2014	WNV	RT-PCR

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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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