

California Arbovirus Surveillance Bulletin #1

Week 9 Friday, March 1, 2013



WEEKLY UPDATE

Human Cases

No human cases have been reported in 2013.

Horses

No equine cases have been reported in 2013.

Dead Birds & Squirrels

One West Nile virus (WNV) positive dead bird has been reported from Los Angeles County; this is the first indication of WNV activity in California this year. An additional eight dead birds have tested positive for chronic WNV infection from Kern (1), Riverside (1), Sacramento (3), San Bernardino (1), and Santa Clara (2) counties.

At this time last year, three dead birds had tested positive for WNV from Los Angeles, Sacramento, and Santa Clara counties.

Mosquito Pools

No positive mosquito pools have been reported in 2013.

Sentinel Chickens

No seroconversions have been reported in 2013.

2012 & 2013 YTD West Nile Virus Comparisons		
	2012	2013
Total # Dead Bird Reports	808	975
# Positive Counties	3	1
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	3 / 116	1 / 97
# Positive Mosquito Pools / # Tested	0 / 229	0 / 120
# Seroconversions / # Tested	0 / 294	0 / 211
# Positive Squirrels / # Tested	0 / 5	0 / 1

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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TESTING SUMMARIES

Humans and Horses

		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
Horse Cases	Week	0	0	0	0	0	0
	YTD	0	0	0	0	0	0

Dead Birds & Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	97	1
	YTD	97	1
Tree Squirrels	Week	1	0
	YTD	1	0

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	0	0	0	0
	YTD	211	0	0	0
Mosquito Pools: RT-PCR	Week	0	0	0	0
	YTD	120	0	0	0

New Positives

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Kern	Kern MVCD	Bakersfield	93306	Great-tailed Grackle	2/4/2013	WNV	Chronic	RT-PCR
Los Angeles	LA County Vet	Lomita	90717	American Crow	2/4/2013	WNV	Positive	RT-PCR
Riverside	Riverside VCP	Hemet	92544	Sharp-shinned Hawk	1/30/2013	WNV	Chronic	RT-PCR
Sacramento	Sac-Yolo MVCD	Citrus Heights	95610	House Finch	1/6/2013	WNV	Chronic	RT-PCR
Sacramento	Sac-Yolo MVCD	Sacramento	95828	Northern Mockingbird	1/11/2013	WNV	Chronic	RT-PCR
Sacramento	Sac-Yolo MVCD	Sacramento	95833	European Starling	1/5/2013	WNV	Chronic	RT-PCR
San Bernardino	San Bernardino VCP	Fontana	92336	White-crowned Sparrow	2/1/2013	WNV	Chronic	RT-PCR
Santa Clara	Santa Clara VCD	Los Altos	94024	American Crow	2/4/2013	WNV	Chronic	RT-PCR
Santa Clara	Santa Clara VCD	Santa Clara	95051	American Crow	1/28/2013	WNV	Chronic	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 and Tree Squirrels:

Dead birds and tree squirrels are necropsied at CAHFS laboratory at University of California, Davis. Oral swabs from American Crows and kidney tissue from all other dead birds and squirrels are forwarded to the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus testing using 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.
