

California Arbovirus Surveillance Bulletin #2

Week 8 Friday, February 24, 2012



WEEKLY UPDATE

Human Cases

No human cases have been reported in 2012.

Horses

No equine cases have been reported in 2012.

Dead Birds & Squirrels

To date this year, 3 dead birds have tested positive (recent) for West Nile virus (WNV) from Los Angeles, Sacramento, and Santa Clara counties. The first positive dead bird of the year was collected on January 18 in Sacramento County, and was the first evidence of WNV activity in 2012. See "Positive Dead Birds" table below for more details. An additional 6 dead birds have tested positive for **chronic** infection with WNV this year from Sacramento (5) and Yolo (1) counties.

NOTE: The statewide dead bird testing program will resume WNV testing on Monday, March 12, 2012.

**In 2010, The University of California, Center for Vectorborne Diseases (CVEC) and the California Department of Public Health, Vector-Borne Disease Section began differentiating between chronic and acute infections in WNV positive dead birds. Birds considered to have chronic infection with WNV are unlikely to have been infected recently with WNV and have limited surveillance utility.*

Mosquito Pools

No positive mosquito pools have been reported in 2012.

Sentinel Chickens

No seroconversions have been reported in 2012.

YTD WNV Activity by Element and County, 2012

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Los Angeles			1			
Sacramento			1			
Santa Clara			1			
Totals	0	0	3	0	0	0

2011 & 2012 YTD West Nile Virus Comparisons

	2011	2012
Total # Dead Bird Reports	525	675
# Positive Counties	1	3
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	0 / 36	3 / 57
# Positive Mosquito Pools / # Tested	1 / 250	0 / 205
# Seroconversions / # Tested	0 / 426	0 / 236
# Positive Squirrels / # Tested	0 / 0	0 / 4

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	21	1
	YTD	57	3
Tree Squirrels	Week	0	0
	YTD	4	0

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	139	0	0	0
	YTD	236	0	0	0
Mosquito Pools: RT-PCR	Week	100	0	0	0
	YTD	205	0	0	0

New Positives

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Los Angeles	Los Angeles Co Vet	Westlake Village	91361	American Crow	2/21/2012	WNV	Recent	VecTest
Sacramento	Sacramento-Yolo MVCD	Sacramento	95842	House Finch	1/18/2012	WNV	Recent	RT-PCR
Santa Clara	Santa Clara VCD	Santa Clara	95050	American Crow	1/31/2012	WNV	Recent	VecTest

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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.
