#### California Arbovirus Surveillance Bulletin #10

Week 19 Friday, May 10, 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**

No West Nile virus (WNV) positive birds were reported this week. To date this year, two dead birds have tested positive for WNV from Los Angeles and Yuba counties and an additional 16 dead birds have tested positive for chronic WNV infection from 11 counties. At this time last year, 5 dead birds had tested positive for WNV from four counties.

## **Mosquito Pools**

A WNV positive mosquito pool was reported from Tulare County this week; this is the first positive mosquito pool this year, and the first detection of WNV activity in Tulare County in 2013. At this time last year, one mosquito pool from Riverside County had tested positive for WNV.

#### **Sentinel Chickens**

No seroconversions have been reported in 2013.

2012 & 2013 YTD West Nile Virus Comparisons							
	2012	2013					
Total # Dead Bird Reports	2,192	2,371					
# Positive Counties	5	3					
# Human Cases	0	0					
# Horse Cases	0	0					
# Positive Dead Birds / # Tested	5 / 427	2 / 421					
# Positive Mosquito Pools / # Tested	1 / 2,610	1 / 1,313					
# Seroconversions / # Tested	0 / 2,245	0 / 1,874					
# Positive Squirrels / # Tested	0 / 24	0 / 19					

Website Information: For updated information on WNV in California, please visit the California WNV website, <a href="https://www.westnile.ca.gov">www.westnile.ca.gov</a>, or the California Vectorborne Disease Surveillance System website, <a href="https://www.calsurv.org">www.calsurv.org</a>. For national information on WNV and other arboviruses, please visit the CDC website, <a href="https://www.cdc.gov">www.cdc.gov</a>, and the USGS website, <a href="https://www.westnilemaps.usgs.gov">www.cdc.gov</a>, and the USGS website, <a href="https://www.westnilemaps.usgs.gov">www.westnilemaps.usgs.gov</a>

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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	53	0
	YTD	421	2
Squirrels	Week	3	0
	YTD	19	0

## **Chickens & Mosquitoes**

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	659	0	0	0
	YTD	1,874	0	0	0
Mosquito Pools	Week	267	1	0	0
	YTD	1,313	1	0	0

# **POSITIVES**

**Mosquito Pools** 

		Pool			# in	Trap			Test
County	Site Code	#	City	Species	Pool	Type	Collected	Virus	Method
Tulare	DLTA008413	22	Visalia	Cx. quinquefasciatus	11	Gravid	5/8/2013	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 and Tree Squirrels:**

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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.

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