

# California Arbovirus Surveillance Bulletin # 4

Week 10 Friday, March 11, 2011

## Weekly Summary

### WEEKLY COMMENTS



#### **Humans**

No human cases have been reported in 2011.

#### **Horses**

No equine cases have been reported in 2011.

#### **Dead Birds & Squirrels**

A West Nile virus (WNV) positive dead bird has been reported from Sacramento County. This is the first recently-infected WNV positive dead bird detected in 2011, and **the first indication of WNV activity in Sacramento County this year**. In addition, a dead bird from Los Angeles County tested positive for chronic infection with WNV.

No positive squirrels have been reported in 2011.

*\*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 were reported this week. In 2011, one WNV positive mosquito pool has been reported from Riverside County.

#### **Sentinel Chickens**

No seroconversions have been reported in 2011.

2010 & 2011 YTD West Nile Virus Comparisons		
	2010	2011
Total # Dead Bird Reports	581	672
# Positive Counties	0	2
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	0 / 48	1 / 56
# Positive Mosquito Pools / # Tested	0 / 306	1 / 357
# Seroconversions / # Tested	0 / 256	0 / 426
# Positive Squirrels / # Tested	0 / 0	0 / 0

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## TEST SUMMARIES

### Human & Horse Cases

		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 & Tree Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	20	1
	YTD	56	1
Tree Squirrels	Week	0	0
	YTD	0	0

### Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	0	0	0	0
	YTD	426	0	0	0
Mosquito Pools: RT-PCR	Week	107	0	0	0
	YTD	357	1	0	0
Mosquito Pools: RAMP	Week	0	0	N/A	N/A
	YTD	0	0	N/A	N/A

## NEW POSITIVES

County	Submitting Agency	City	Zip Code	Species	Collected	Test Type	Virus	Test Result
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95758	American Crow	2/17/2011	RT-PCR	WNV	Recent
Los Angeles	Greater Los Angeles Co VCD	Valley Village	91607	Hummingbird	2/14/2011	RT-PCR	WNV	Chronic

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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 by plaque reduction neutralization test (PRNT).

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### **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.

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### **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.

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### **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.

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### **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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*Website Information: For updated information on WNV in California, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.ca.gov), or the California Vectorborne Disease Surveillance System website, [www.calsurv.org](http://www.calsurv.org). For national information on WNV and other arboviruses, please visit the CDC website, [www.cdc.gov](http://www.cdc.gov), and the USGS website, [www.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov)*

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