

# California Arbovirus Surveillance Bulletin # 8

Week 15 Monday, April 19, 2010

## Weekly Summary

### WEEKLY COMMENTS



#### **Humans**

No human cases have been reported in 2010.

#### **Horses**

No equine cases have been reported in 2010.

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

One West Nile virus (WNV) positive dead bird was reported last week from Butte County.

In 2010, a total of 6 WNV positive dead birds have been reported from three counties. At this time last year, 9 birds from four counties (Fresno, Los Angeles, Orange, and San Diego) had tested positive for WNV.

#### **Mosquito Pools**

No positive mosquito pools have been reported in 2010.

At this time last year, 7 WNV positive mosquito pools had been reported from Contra Costa County.

#### **Sentinel Chickens**

No seroconversions have been reported in 2010.

At this time last year, 3 WNV positive chickens from Los Angeles County had been reported.

### **YTD WNV Activity by Element and County, 2010**

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Butte			2			
Los Angeles			3			
Sacramento			1			
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>

**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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2009 & 2010 YTD West Nile Virus Comparisons		
	2009	2010
Total # Dead Bird Reports	2,457	1,310
# Positive Counties	5	3
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	9 / 306	6 / 178
# Positive Mosquito Pools / # Tested	7 / 1,052	0 / 1,269
# Seroconversions / # Tested	3 / 1,095	0 / 1,006
# Positive Squirrels / # Tested	0 / 6	0 / 6

## TEST SUMMARIES

### Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	17	0	0	0	0	0	0	0	0
	YTD	197	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	34	0	0	0	0	0	0	0	0

### Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	25	1
	YTD	178	6
Tree Squirrels	Week	0	0
	YTD	6	0

### Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLE Positive	WEE Positive
Chicken Sera	Week	750	0	0	0
	YTD	1,006	0	0	0
Mosquito Pools: RT-PCR	Week	270	0	0	0
	YTD	1246	0	0	0
Mosquito Pools: RAMP	Week	23	0	N/A	N/A
	YTD	23	0	N/A	N/A

## POSITIVES

Agency	County	City	Zip	Species	Reported	Type of Infection	Test Method
Oroville MAD	Butte	Oroville	95966	Lark Sparrow	4/5/10	Chronic	RT-PCR

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## NATIONAL COMMENTS

### **Final 2009 Summary**

In 2009, a total of 722 human cases were reported nationwide in the following 37 states and the District of Columbia: Arizona (20), Arkansas (6), California (112), Colorado (103), District of Columbia (2), Florida (3), Georgia (4), Idaho (38), Illinois (5), Indiana (4), Iowa (5), Kansas (13), Kentucky (3), Louisiana (21), Maryland (2), Michigan (1), Minnesota (4), Mississippi (53), Missouri (5), Montana (6), Nebraska (52), Nevada (12), New Jersey (3), New Mexico (8), New York (7), North Dakota (1), Ohio (2), Oklahoma (10), Oregon (11), South Carolina (3), South Dakota (21), Tennessee (9), Texas (115), Utah (2), Virginia (5), Washington (38), Wisconsin (1), and Wyoming (12). Of the 722 individuals, 373 (52%) had neuroinvasive illness. A total of 33 fatalities were reported in Arkansas (1), California (4), Colorado (3), Georgia (2), Idaho (2), Indiana (1), Maryland (1), Mississippi (5), New Mexico (1), Oklahoma (1), Tennessee (1), Texas (9), Washington (1), and Wyoming (1).

## 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).

\*Human denominator data only includes specimens tested at VRDL and does not include additional negative specimens that are tested by local agencies only.

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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. The WNV Dead Bird Surveillance Coordinator, Erin Parker, can be reached directly at (510) 412-6254.

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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 (WEE), and St. Louis encephalitis (SLE) 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 WEE, SLE, 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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