

# California Arbovirus Surveillance Bulletin # 14

Week 21 Friday, May 28, 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 American crow from Santa Clara County was reported positive (recent infection) for West Nile virus (WNV) this week. To date this year, 6 recently-infected\* WNV positive dead birds have been reported from 2 counties: Los Angeles and Santa Clara. In addition, 5 other birds from Butte (2), Los Angeles (1), Sacramento (1) and San Joaquin (1) have tested positive for chronic infection with WNV. No positive tree squirrels have been reported this year.

At this time last year, 13 birds from 5 counties (Fresno, Los Angeles, Orange, San Diego, and San Joaquin) had tested positive for WNV. Year-to-date totals from last year and previous years include both recent and chronic infections.

*\*In 2010, The University of California, Center for Vectorborne Diseases (CVEC) and the California Department of Public Health, Vector-Borne Disease Section has begun differentiating between chronic and acute infections in West Nile virus 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**

One WNV positive mosquito pool from was reported this week from Riverside County. This is the first indication of WNV activity in Riverside County in 2010. To date this year, 2 mosquito pools from 2 counties have tested positive for WNV. At this time last year, 38 WNV positive mosquito pools had been reported from 5 counties (Contra Costa, Fresno, Los Angeles, Riverside, and Santa Clara).

#### **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 <sup>^</sup>	Mosquito Pools	Sentinel Chickens	Squirrels
Los Angeles			2			
Riverside				1		
San Bernardino				1		
Santa Clara			4			
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>

<sup>^</sup> Chronic infections are not included in county totals.

**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).

# California Arbovirus Surveillance Bulletin # 14

Week 21 Friday, May 28, 2010

2009 & 2010 YTD West Nile Virus Comparisons		
	2009	2010
Total # Dead Bird Reports	5,033	2,707
# Positive Counties	8	4
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	13 / 747	6 / 457
# Positive Mosquito Pools / # Tested	38 / 4,436	2 / 3,731
# Seroconversions / # Tested	3 / 5,866	0 / 5,741
# Positive Squirrels / # Tested	0 / 21	0 / 18

## TEST SUMMARIES

### Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	21	0	0	0	0	0	0	0	0
	YTD	291	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	63	0	0	0	0	0	0	0	0

### Dead Birds & Tree Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	74	1
	YTD	457	6
Tree Squirrels	Week	2	0
	YTD	18	0

### Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLE Positive	WEE Positive
Chicken Sera	Week	955	0	0	0
	YTD	5,741	0	0	0
Mosquito Pools: RT-PCR	Week	447	1	0	0
	YTD	3,653	2	0	0
Mosquito Pools: RAMP	Week	0	0	N/A	N/A
	YTD	78	0	N/A	N/A

## POSITIVES

### Dead Birds

Agency	County	City	Zip	Species	Reported	Virus	Type of Infection	Test Method
Santa Clara VCD	Santa Clara	San Jose	95119	American Crow	5/20/10	WNV	Recent	VecTest

### Mosquito Pools

County	Site Code	Pool #	# in Pool	Species	Collected	City	Virus	Test Method
Riverside	COAV0054	1516	50	Cx tarsalis	5/20/10	Mecca	WNV	RT-PCR

# California Arbovirus Surveillance Bulletin # 14

Week 21 Friday, May 28, 2010

## 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.

---

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

---

### **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.

---

### **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.

---

*Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6253 or email: [tina.feiszli@cdph.ca.gov](mailto:tina.feiszli@cdph.ca.gov)*

---