

# California Arbovirus Surveillance Bulletin # 16

Week 21 Friday, May 29, 2009

## Weekly Summary

### WEEKLY COMMENTS



As of May 29, 2009, eight counties have reported West Nile virus (WNV) activity. At this time last year, 10 counties had reported WNV activity.

#### **Humans**

No human cases have been reported in 2009.

#### **Horses**

No equine cases have been reported in 2009.

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

One WNV positive dead bird from San Joaquin County was reported this week; **this is the first indication of WNV activity in San Joaquin County this year.** In 2009, 13 birds have tested positive for WNV from five counties. At this time last year, 41 WNV positive dead birds had been reported from nine counties.

No WNV positive tree squirrels have been reported this year.

#### **Mosquito Pools**

No positive mosquito pools were reported this week. In 2009, 38 mosquito pools have tested positive for WNV from five counties. At this time last year, 11 WNV positive mosquito pools had been reported from three counties.

#### **Sentinel Chickens**

No seroconversions were reported this week. In 2009, three chickens from Los Angeles County have tested positive for WNV antibodies. At this time last year, two WNV seroconversions had been reported from one county.

**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).

### YTD WNV Activity by Element and County, 2009

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Contra Costa				11		
Fresno			2	11		
Los Angeles			1	1	3	
Orange			2			
Riverside				2		
San Diego			7			
San Joaquin			1			
Santa Clara				13		
<b>Total</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>38</b>	<b>3</b>	<b>0</b>

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2009 & 2008 YTD West Nile Virus Comparisons		
	2008	2009
Total # Dead Bird Reports	6,409	5,033
# Positive Counties	10	8
# Human Cases/ # Tested	0 / 261	0 / 345
# Horse Cases/ # Tested	0 / 0	0 / 72
# Positive Dead Birds/ # Tested	41 / 896	13 / 747
# Positive Mosquito Pools/ # Tested	11 / 3,565	38 / 4,436
# Positive Chicken Sera/ # Tested	2 / 6,544	3 / 5,866
# Positive Squirrels/ # Tested	0 / 35	0 / 21

## 2009 TEST SUMMARIES

### Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	19	0	0	0	0	0	0	0	0
	YTD	345	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	72	0	0	0	0	0	0	0	0

### Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	97	1
	YTD	747	13
Tree Squirrels	Week	3	0
	YTD	21	0

### Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	943	0	0	0
	YTD	5,866	3	0	0
Mosquito Pools: RT-PCR	Week	487	0	0	0
	YTD	4,229	14	0	0
Mosquito Pools: RAMP	Week	3	0	N/A	N/A
	YTD	207	24	N/A	N/A

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## POSITIVES

### Dead Birds

County	City	Zip	Species	Reported	Tested	Virus
San Joaquin	Banta	95304	American Crow	5/18/09	5/19/09	WNV

## 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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*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) 412-6298 or email: [tina.feiszli@cdph.ca.gov](mailto:tina.feiszli@cdph.ca.gov)*

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