

# California Arbovirus Surveillance Bulletin # 21

Week 27 Friday, July 8, 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**

Eight West Nile virus (WNV) positive dead birds were reported this week from Los Angeles (4), Santa Clara (1), and Tulare (3) counties. In addition, four dead birds tested positive for chronic infection with WNV. In 2011, 37 dead birds from 9 counties have tested positive for WNV. In addition, 17 birds have tested positive for chronic\* WNV infection. No positive squirrels were reported this week.

At this time last year, 52 birds from 12 counties, and 1 tree squirrel from 1 county (Butte) had tested positive for WNV.

*\*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**

A total of 15 WNV positive mosquito pools were reported this week from the following 5 counties: Fresno (1), Kern (5), Los Angeles (4), Sacramento (1), and Tulare (4). This is the first WNV positive mosquito pool reported from Sacramento County this year. In 2011, 46 mosquito pools from 8 counties have tested positive for WNV.

At this time last year, 107 mosquito pools from 13 counties had tested positive for WNV.

#### **Sentinel Chickens**

No seroconversions have been reported in 2011. At this time last year, 6 chickens had tested positive for WNV from 2 counties (Imperial and Riverside).

### **YTD WNV Activity by Element and County, 2011**

County	Humans	Horses	Dead Birds <sup>^</sup>	Mosquito Pools	Sentinel Chickens	Squirrels
Contra Costa			1			
Fresno				8		
Kern				10		
Kings			1			
Los Angeles			10	9		
Orange			4			
Riverside			1	1		
Sacramento			1	1		
San Bernardino				1		
Santa Clara			10	1		
Tulare			8	15		
Ventura			1			
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>46</b>	<b>0</b>	<b>0</b>

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

# California Arbovirus Surveillance Bulletin # 21

Week 27 Friday, July 8, 2011

2010 & 2011 YTD West Nile Virus Comparisons		
	2010	2011
Total # Dead Bird Reports	5,072	4,070
# Positive Counties	19	12
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	52 / 966	37 / 925
# Positive Mosquito Pools / # Tested	107 / 10,816	46 / 9,819
# Seroconversions / # Tested	6 / 11,176	0 / 8,379
# Positive Squirrels / # Tested	1 / 41	0 / 44

## 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	72	8
	YTD	925	37
Tree Squirrels	Week	3	0
	YTD	44	0

### Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	802	0	0	0
	YTD	8,379	0	0	0
Mosquito Pools: RT-PCR	Week	1,061	15	0	0
	YTD	9,784	46	0	0
Mosquito Pools: RAMP	Week	25	0	N/A	N/A
	YTD	35	0	N/A	N/A

# California Arbovirus Surveillance Bulletin # 21

Week 27 Friday, July 8, 2011

## POSITIVES

### Dead Birds

County	Agency	City	Zip	Species	Collected	Virus	Type of Infection	Method
Fresno	Consolidated MAD	Reedley	93654	Anna's Hummingbird	6/21/2011	WNV	Chronic	RT-PCR
Kern	Kern MVCD	Bakersfield	93306	House Sparrow	6/17/2011	WNV	Chronic	RT-PCR
Kern	Kern MVCD	Bakersfield	93306	House Sparrow	6/17/2011	WNV	Chronic	RT-PCR
Los Angeles	Greater Los Angeles Co VCD - SFS	Cerritos	90703	House Finch	6/17/2011	WNV	Recent	RT-PCR
Los Angeles	Greater Los Angeles Co VCD - SFS	Cerritos	90703	American Crow	6/20/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	West Covina	91792	California Towhee	6/22/2011	WNV	Recent	RT-PCR
Los Angeles	Greater Los Angeles Co VCD - SFS	Cerritos	90703	American Crow	6/22/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Vet	Covina	91722	House Sparrow	6/20/2011	WNV	Chronic	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95120	American Crow	6/28/2011	WNV	Recent	VecTest
Tulare	Tulare MAD	Lindsay	93247	American Crow	6/29/2011	WNV	Recent	RT-PCR
Tulare	Delta VCD	Visalia	93277	American Crow	6/29/2011	WNV	Recent	RT-PCR
Tulare	Delta VCD	Tulare	93274	Barn Owl	6/29/2011	WNV	Recent	RT-PCR

### Mosquitoes

County	Site Code	Pool #	Species	# in Pool	Collected	City	Virus	Method
Fresno	CNSL0101	153	Cx. quinquefasciatus	50	7/6/2011	Clovis	WNV	RTPCR
Kern	KERN0121	996	Cx. quinquefasciatus	24	7/1/2011	Bakersfield	WNV	RTPCR
Kern	KERN2051	945	Cx. quinquefasciatus	50	6/29/2011	Bakersfield	WNV	RTPCR
Kern	KERN0035	928	Cx. tarsalis	30	6/29/2011	Bakersfield	WNV	RTPCR
Kern	KERN0036	920	Cx. tarsalis	50	6/28/2011	Bakersfield	WNV	RTPCR
Kern	KERN0008	926	Cx. quinquefasciatus	24	6/28/2011	Bakersfield	WNV	RTPCR
Los Angeles	GRLA2228	836	Cx. stigmatosoma	30	6/30/2011	Rowland Heights	WNV	RTPCR
Los Angeles	GRLA2554	5818	Cx. quinquefasciatus	50	6/30/2011	Winnetka	WNV	RTPCR
Los Angeles	GRLA2554	5819	Cx. quinquefasciatus	42	6/30/2011	Winnetka	WNV	RTPCR
Los Angeles	GRLA2936	5830	Cx. quinquefasciatus	50	7/1/2011	Burbank	WNV	RTPCR
Sacramento	SAYO245002	1788	Cx. pipiens	16	7/6/2011	Wilton	WNV	RTPCR
Tulare	DLTA8422	123	Cx. quinquefasciatus	21	6/30/2011	Goshen	WNV	RTPCR
Tulare	DLTA8520	135	Cx. quinquefasciatus	48	7/1/2011	Visalia	WNV	RTPCR
Tulare	DLTA9505	132	Cx. quinquefasciatus	26	7/1/2011	Visalia	WNV	RTPCR
Tulare	DLTA9505	133	Cx. quinquefasciatus	33	7/1/2011	Visalia	WNV	RTPCR

# California Arbovirus Surveillance Bulletin # 21

Week 27 Friday, July 8, 2011

## 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).

---

### **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.

---

### **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.

---

*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)*

*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)*

---