

## California Arbovirus Surveillance Bulletin #12

Week 21 Friday, May 24, 2013



### WEEKLY UPDATE

#### Human Cases

No human cases have been reported in 2013.

#### Horses

No equine cases have been reported in 2013.

#### Dead Birds & Squirrels

No West Nile virus (WNV) positive birds were reported this week. To date this year, two dead birds have tested positive for WNV from Los Angeles and Yuba counties and an additional 16 dead birds have tested positive for chronic WNV infection from 11 counties. At this time last year, 16 dead birds had tested positive for WNV from five counties.

#### Mosquito Pools

Seven WNV positive mosquito pools were reported this week from Fresno (1), Los Angeles (3), San Joaquin (2), and Tulare (1) counties. **This is the first detection of WNV activity in San Joaquin County this year, and the first WNV positive mosquitoes detected in Los Angeles County in 2013.** To date this year, 9 mosquito pools from 4 counties have tested positive for WNV. At this time last year, 8 mosquito pools from 5 counties had tested positive for WNV.

#### Sentinel Chickens

No seroconversions have been reported in 2013.

YTD WNV Activity by Element and County, 2013

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Fresno				2		
Los Angeles			1	3		
San Joaquin				2		
Tulare				2		
Yuba			1			
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>9</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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2012 & 2013 YTD West Nile Virus Comparisons		
	2012	2013
Total # Dead Bird Reports	2,935	3,026
# Positive Counties	9	5
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	16 / 579	2 / 528
# Positive Mosquito Pools / # Tested	8 / 4,049	9 / 3,126
# Seroconversions / # Tested	0 / 3,537	0 / 2,960
# Positive Squirrels / # Tested	0 / 31	0 / 32

### TESTING SUMMARIES

#### Humans and Horses

		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 & Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	69	0
	YTD	528	2
Tree Squirrels	Week	8	0
	YTD	32	0

#### Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	677	0	0	0
	YTD	2,960	0	0	0
Mosquito Pools	Week	833	7	0	0
	YTD	3,126	9	0	0

### POSITIVES

#### Mosquito Pools

County	Site Code	Pool #	City	Species	# in Pool	Trap Type	Collected	Virus	Method
Fresno	CNSL1725	58	Clovis	Cx. quinquefasciatus	42	GRVD	5/21/2013	WNV	RTPCR
Los Angeles	GRLA2123	102	Harbor City	Cx. quinquefasciatus	54	CO2	5/13/2013	WNV	RTPCR
Los Angeles	GRLA2131	100	Wilmington	Cx. tarsalis	31	CO2	5/13/2013	WNV	RTPCR
Los Angeles	GRLA2133	81	Wilmington	Cx. quinquefasciatus	55	GRVD	5/13/2013	WNV	RTPCR
San Joaquin	SJCM7001	263	Ripon	Cx. pipiens	1	GRVD	5/21/2013	WNV	RTPCR
San Joaquin	SJCM8056	278	Manteca	Cx. pipiens	22	CO2	5/21/2013	WNV	RTPCR
Tulare	DLTA6518	56	Cutler	Cx. quinquefasciatus	50	GRVD	5/21/2013	WNV	RTPCR

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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.

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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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