

California Arbovirus Surveillance Bulletin #14

Week 23 Friday, June 7, 2013



WEEKLY UPDATE

Human Cases

No cases were reported this week. To date this year, one human case of West Nile virus (WNV) has been reported from Sacramento County.

Horses

No equine cases have been reported in 2013.

Dead Birds & Squirrels

Six WNV positive birds were reported this week from Los Angeles (1), Merced (2), Sacramento (2), and Ventura (1) counties. **This is the first detection of WNV activity in Merced and Ventura counties this year**, and these are the first WNV positive birds detected in Sacramento County. An additional two dead birds tested positive for chronic WNV infection from two counties. To date this year, 10 dead birds have tested positive for WNV from seven counties and an additional 25 dead birds have tested positive for chronic WNV infection from 16 counties. At this time last year, 47 dead birds had tested positive for WNV from eight counties.

Mosquito Pools

Six WNV positive mosquito pools were reported this week from Los Angeles (4) and Sacramento (2) counties. **These are the first WNV positive mosquitoes detected in Sacramento County in 2013.** To date this year, 21 mosquito pools from 6 counties have tested positive for WNV. At this time last year, 91 mosquito pools from 6 counties had tested positive for WNV.

Sentinel Chickens

A WNV seroconversion was detected this week in a flock located in Los Angeles County. **This is the first WNV positive chicken detected in 2013.**

2012 & 2013 YTD West Nile Virus Comparisons		
	2012	2013
Total # Dead Bird Reports	3,876	3,839
# Positive Counties	12	9
# Human Cases	0	1
# Horse Cases	0	0
# Positive Dead Birds / # Tested	47 / 796	10 / 691
# Positive Mosquito Pools / # Tested	91 / 5,907	21 / 8,504
# Seroconversions / # Tested	0 / 4,805	1 / 4,112
# Positive Squirrels / # Tested	0 / 38	0 / 37

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov

California Arbovirus Surveillance Bulletin #14

Week 23 Friday, June 7, 2013

YTD WNV Activity by Element and County, 2013

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Fresno			1	3		
Los Angeles			2	11	1	
Merced			2			
Orange			1	1		
Sacramento	1		2	2		
San Joaquin				2		
Tulare				2		
Ventura			1			
Yuba			1			
Totals	1	0	10	21	1	0

TESTING SUMMARIES

Humans and Horses

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	0	0	0	0	0	0
	YTD	1	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	59	6
	YTD	691	10
Tree Squirrels	Week	3	0
	YTD	37	0

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	558	1	0	0
	YTD	4,112	1	0	0
Mosquito Pools	Week	773	6	0	0
	YTD	8,504	21	0	0

POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Los Angeles	San Gabriel Valley MVCD	Arcadia	91006	American Crow	5/23/2013	WNV	Recent	RT-PCR
Merced	Merced Co MAD	Merced	95340	American Crow	5/28/2013	WNV	Recent	RT-PCR
Merced	Merced Co MAD	Merced	95340	American Crow	5/28/2013	WNV	Recent	RT-PCR
Sacramento	Sac-Yolo MVCD	Sacramento	95815	American Crow	5/31/2013	WNV	Recent	RT-PCR
Sacramento	Sac-Yolo MVCD	Wilton	95693	American Crow	5/31/2013	WNV	Recent	RT-PCR
Tulare	Tulare MAD	Tulare	93274	European Starling	5/23/2013	WNV	Chronic	RT-PCR
Ventura	Ventura Co EHD	Simi Valley	93065	American Crow	5/28/2013	WNV	Recent	RT-PCR
Ventura	Ventura Co EHD	Ventura	93003	American Crow	5/28/2013	WNV	Chronic	RT-PCR

California Arbovirus Surveillance Bulletin #14

Week 23 Friday, June 7, 2013

Mosquito Pools

County	Site Code	Pool #	City	Species	# in Pool	Trap Type	Collected	Virus	Method
Los Angeles	GRLA2123	290	Harbor City	Cx. quinquefasciatus	50	GRVD	6/4/2013	WNV	RTPCR
Los Angeles	GRLA2133	295	Wilmington	Cx. quinquefasciatus	50	GRVD	6/4/2013	WNV	RTPCR
Los Angeles	GRLA2133	296	Wilmington	Cx. quinquefasciatus	50	GRVD	6/4/2013	WNV	RTPCR
Los Angeles	GRLA2133	298	Wilmington	Cx. quinquefasciatus	50	GRVD	6/4/2013	WNV	RTPCR
Sacramento	SAYO214013	780	Carmichael	Cx. pipiens	44	CO2	6/4/2013	WNV	RTPCR
Sacramento	SAYO222015	783	Sacramento	Cx. pipiens	1	GRVD	6/4/2013	WNV	RTPCR

Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band #
Los Angeles	ANTV8656	Lancaster	5/29/2013	WNV	3611

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.

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.