

California Arbovirus Surveillance Bulletin # 9

Week 14 Friday, April 10, 2009

Weekly Summary

WEEKLY COMMENTS



Humans

No human cases have been reported in 2009.

Horses

No equine cases have been reported in 2009.

Dead Birds & Tree Squirrels

Two West Nile virus (WNV) positive dead birds from Orange (1) and San Diego (1) counties were reported this week. In 2009, five birds have tested positive for WNV from three counties.

No WNV positive tree squirrels have been reported this year.

Mosquito Pools

Two WNV positive mosquito pools from Contra Costa County were reported this week. In 2009, three mosquito pools from Contra Costa County have tested positive for WNV.

Sentinel Chickens

No seroconversions were reported this week. In 2009, three chickens from Los Angeles County have tested positive for WNV.

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.

YTD WNV Activity by Element and County, 2009

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Contra Costa				3		
Fresno			1			
Los Angeles					3	
Orange			2			
San Diego			2			
Totals	0	0	5	3	3	0

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2008 & 2009 YTD West Nile Virus Comparisons		
	2008	2009
Total # Dead Bird Reports	2,779	2,171
# Positive Counties	5	5
# Human Cases/ # Tested	0 / 111	0 / 235
# Horse Cases/ # Tested	0 / 0	0 / 32
# Positive Dead Birds/ # Tested	9 / 344	5 / 236
# Positive Mosquito Pools/ # Tested	4 / 485	3 / 974
# Positive Chicken Sera/ # Tested	2 / 806	3 / 181
# Positive Squirrels/ # Tested	0 / 12	0 / 5

2009 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	235	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	32	0	0	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	65	2
	YTD	236	5
Tree Squirrels	Week	1	0
	YTD	5	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	60	0	0	0
	YTD	181	3	0	0
Mosquito Pools: RT-PCR	Week	263	0	0	0
	YTD	963	0	0	0
Mosquito Pools: RAMP	Week	3	2	N/A	N/A
	YTD	11	3	N/A	N/A

POSITIVES

Dead Birds

County	City	Zip	Species	Reported	Tested
Orange	Laguna Woods	92637	American Crow	3/31/09	4/3/09
San Diego	Rancho Santa Fe	92067	American Crow	3/23/09	4/6/09

Mosquitoes

County	Site Code	City	Pool #	Species	# in Pool	Collected	Tested
Contra Costa	CNTR2206	Concord	9	Cx erythrothorax	50	4/3/09	4/6/09
Contra Costa	CNTR2206	Concord	10	Cx erythrothorax	50	4/3/09	4/6/09

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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 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.

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