

California Arbovirus Surveillance Bulletin # 5

Week 12 Friday, March 21, 2008

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

No human cases have been reported in 2008.

Horses

No equine cases have been reported in 2008.

Dead Birds & Tree Squirrels

Eight West Nile virus (WNV) positive dead birds were reported this week from Sacramento (1) and San Diego (7) counties. These are the first WNV-positive birds detected in California this year.

No WNV-positive tree squirrels have been reported in 2008.

Mosquito Pools

No positive mosquito pools have been reported in 2008.

Sentinel Chickens

No new seroconversions were reported this week. To date this year, two WNV seroconversions have been detected in chickens from Los Angeles County.

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, 2008

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Los Angeles					2	
Sacramento			1			
San Diego			7			
Totals	0	0	8	0	2	0

2008 & 2007 YTD West Nile Virus Comparisons

	2008	2007*
Total # Dead Bird Reports	2,064	5,442
# Positive Counties	3	7
# Human Cases/ # Tested	0 / 89	0 / 185
# Horse Cases/ # Tested	0 / 0	1 / 036
# Positive Dead Birds/ # Tested	8 / 227	6 / 549
# Positive Mosquito Pools/ # Tested	0 / 182	2 / 389
# Positive Chicken Sera/ # Tested	2 / 182	2 / 966
# Positive Squirrels/ # Tested	0 / 5	0 / 9

*Data from week 12 not available; week 11 data shown

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2008 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	89	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	0	0	0	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	111	8
	YTD	227	8
Tree Squirrels	Week	3	0
	YTD	5	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	74	0	0	0
	YTD	182	2	0	0
Mosquito Pools: RT-PCR	Week	27	0	0	0
	YTD	182	0	0	0
Mosquito Pools: RAMP	Week	0	0	N/A	N/A
	YTD	0	0	N/A	N/A

POSITIVES

Dead Birds

County	City	Zip Code	Species	Reported	Tested	Test Method
Sacramento	Herald	95638	American Crow	3/5/08	3/17/08	RT-PCR
San Diego	Fallbrook	92028	Great Horned Owl	2/25/08	3/7/08	RT-PCR
San Diego	Ramona	92065	Unknown-hawk	2/6/08	3/7/08	RT-PCR
San Diego	Escondido	92025	American Crow	2/25/08	2/25/08	RT-PCR
San Diego	San Diego	92117	Red-tailed Hawk	2/22/08	3/4/08	RT-PCR
San Diego	Santee	92071	American Crow	2/20/08	2/20/08	RT-PCR
San Diego	Escondido	92027	Red-shouldered Hawk	1/7/08	1/10/08	RT-PCR
San Diego	Poway	92064	Sharp-shinned Hawk	1/10/08	1/10/08	RT-PCR

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.

Dead Birds and Tree Squirrels:

All bird and tree squirrel species from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Additionally, once WNV has been detected within a county, doves, pigeons, and chickens will no longer be accepted for testing from that county. Corvids that test positive via RAMP or VecTest are no longer confirmed. Dead birds and 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 WNV 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 VBDS and tested for the presence of antibodies to West Nile virus (WNV), 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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