

California Arbovirus Surveillance Bulletin # 5

Week 11 Friday, March 18, 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

Statewide testing of dead birds and squirrels for West Nile virus (WNV) resumed this week and all zip codes have been re-opened unless otherwise requested. The WNV and Dead Bird Hotline is currently monitored Monday-Friday from 8am to 5pm, and beginning in mid-April the hotline will be monitored 7 days a week from 8am to 5pm. Please continue to direct calls from the public to the toll free number (1-877-WNV-BIRD) to report any dead birds or tree squirrels. Reports can also be made after hours via voicemail prompts and on the WNV website: www.westnile.ca.gov. Agencies can reach the hotline directly by dialing 510-412-4601 and 510-412-4602.

No positive dead birds or squirrels were reported this week. In 2011, one bird from Sacramento County has tested positive WNV. An additional two birds have tested positive for chronic WNV infection.

No positive squirrels have been reported in 2011.

**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

No positive mosquito pools were reported this week. In 2011, one WNV positive mosquito pool has been reported from Riverside County.

Sentinel Chickens

No seroconversions have been reported in 2011.

2010 & 2011 YTD West Nile Virus Comparisons		
	2010	2011
Total # Dead Bird Reports	761	788
# Positive Counties	1	2
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	2 / 61	1 / 59
# Positive Mosquito Pools / # Tested	0 / 306	1 / 607
# Seroconversions / # Tested	0 / 256	0 / 501
# Positive Squirrels / # Tested	0 / 3	0 / 0

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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	3	0
	YTD	59	1
Tree Squirrels	Week	0	0
	YTD	0	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	75	0	0	0
	YTD	501	0	0	0
Mosquito Pools: RT-PCR	Week	250	0	0	0
	YTD	607	1	0	0
Mosquito Pools: RAMP	Week	0	0	N/A	N/A
	YTD	0	0	N/A	N/A

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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).

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.

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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
