

California Arbovirus Surveillance Bulletin # 3

Week 8 Friday, February 25, 2011

Weekly Summary

WEEKLY COMMENTS



Humans

No human cases have been reported in 2011.

2010 Update

In 2010 (reported as of February 25, 2011), 111 human cases of West Nile virus (WNV) illness were identified in 18 counties: Alameda (1), Butte (1), Contra Costa (4), Fresno (23), Glenn (2), Kern (15), Kings (1), Los Angeles (4), Madera (7), Merced (1), Orange (1), Placer (3), Sacramento (12), San Bernardino (5), San Francisco (1), San Joaquin (6), Stanislaus (12), and Tulare (12). Of the 111 cases, 73 (66%) developed neuroinvasive disease. The median age of the cases was 56 years (range: 10-89 years) and 57% were male. Six fatalities were reported in Fresno (1), Madera (2), Merced (1), San Francisco (1), and Stanislaus (1) counties. A total of 21 WNV-positive blood donation samples were reported; four of the individuals developed symptoms and were reclassified as cases.

Horses

No equine cases have been reported in 2011.

Dead Birds & Squirrels

No recent positive dead birds or squirrels have been reported in 2011. One chronic WNV positive dead bird has been reported from Los Angeles County this year.

**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

One mosquito pool (*Culex tarsalis*) collected in Riverside County has tested positive for WNV; this is the first detection of WNV activity in California in 2011.

Sentinel Chickens

No seroconversions have been reported in 2011.

2010 & 2011 YTD West Nile Virus Comparisons		
	2010	2011
Total # Dead Bird Reports	423	525
# Positive Counties	0	1
# Human Cases	0	0
# Horse Cases	0	0
# Positive Dead Birds / # Tested	0 / 33	0 / 36
# Positive Mosquito Pools / # Tested	0 / 24	1 / 250
# Seroconversions / # Tested	0 / 236	0 / 426
# Positive Squirrels / # Tested	0 / 0	0 / 0

California Arbovirus Surveillance Bulletin # 3

Week 8 Friday, February 25, 2011

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	19	0
	YTD	36	0
Tree Squirrels	Week	0	0
	YTD	0	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	221	0	0	0
	YTD	426	0	0	0
Mosquito Pools: RT-PCR	Week	76	1	0	0
	YTD	250	1	0	0
Mosquito Pools: RAMP	Week	0	0	N/A	N/A
	YTD	0	0	N/A	N/A

NEW POSITIVES

County	Site Code	Pool #	Species	# in Pool	Nearest City	Collected	Virus	Test Method
Riverside	COAV0058	179	<i>Cx. tarsalis</i>	50	Mecca	2/15/2011	WNV	RT-PCR

California Arbovirus Surveillance Bulletin # 3

Week 8 Friday, February 25, 2011

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.

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

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
