

California Arbovirus Surveillance Bulletin # 14

Week 19 Friday, May 15, 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

No West Nile virus (WNV) positive dead birds were reported this week. To date this year, 11 birds have tested positive for WNV from four counties.

No WNV positive tree squirrels have been reported this year.

Mosquito Pools

CVEC reported one WNV positive mosquito pool from Fresno County this week. In addition, the Santa Clara County Vector Control District reported 13 WNV positive mosquito pools which were tested by RAMP. These are the first WNV positive pools detected in both counties this year, and the first indication of WNV activity in Santa Clara County in 2009. To date this year, 26 mosquito pools have tested positive for WNV from four counties.

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				11		
Fresno			2	1		
Los Angeles			1	1	3	
Orange			2			
San Diego			6			
Santa Clara				13		
Total	0	0	11	26	3	0

California Arbovirus Surveillance Bulletin # 14

Week 19 Friday, May 15, 2009

2009 & 2008 YTD West Nile Virus Comparisons		
	2008	2009
Total # Dead Bird Reports	4,833	4,049
# Positive Counties	8	6
# Human Cases/ # Tested	0 / 224	0 / 318
# Horse Cases/ # Tested	0 / 0	0 / 66
# Positive Dead Birds/ # Tested	13 / 686	11 / 536
# Positive Mosquito Pools/ # Tested	9 / 2,254	26 / 3,025
# Positive Chicken Sera/ # Tested	2 / 4,626	3 / 4,265
# Positive Squirrels/ # Tested	0 / 28	0 / 17

2009 TEST SUMMARIES

Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	26	0	0	0	0	0	0	0	0
	YTD	318	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	66	0	0	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	61	0
	YTD	536	11
Tree Squirrels	Week	4	0
	YTD	17	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	902	0	0	0
	YTD	4,265	3	0	0
Mosquito Pools: RT-PCR	Week	432	1	0	0
	YTD	2,862	2	0	0
Mosquito Pools: RAMP	Week	112	13	N/A	N/A
	YTD	163	24	N/A	N/A

California Arbovirus Surveillance Bulletin # 14

Week 19 Friday, May 15, 2009

POSITIVES

Mosquitoes

County	Site Code	Pool #	# in Pool	Species	Collected	Tested	City	Virus
Fresno	CNSL1344	25	33	Cx quinquefasciatus	5/8/2009	5/13/2009	Fresno	WNV
Santa Clara	STCL0115	1375	50	Cx tarsalis	4/29/2009	4/29/2009	Na	WNV
Santa Clara	STCL0115	1376	50	Cx tarsalis	4/29/2009	4/29/2009	Na	WNV
Santa Clara	STCL0115	1377	50	Cx tarsalis	4/29/2009	4/29/2009	Na	WNV
Santa Clara	STCL0115	1378	50	Cx tarsalis	4/29/2009	4/29/2009	Na	WNV
Santa Clara	STCL0115	1379	50	Cx tarsalis	4/29/2009	4/29/2009	Na	WNV
Santa Clara	STCL1279	1382	50	Cx tarsalis	4/29/2009	4/29/2009	San Jose	WNV
Santa Clara	STCL1280	1384	34	Cx tarsalis	4/29/2009	4/29/2009	San Jose	WNV
Santa Clara	STCL1281	1386	4	Cx tarsalis	4/29/2009	4/29/2009	San Jose	WNV
Santa Clara	STCL0115	1483	50	Cx tarsalis	5/12/2009	5/13/2009	Na	WNV
Santa Clara	STCL1280	1496	50	Cx tarsalis	5/12/2009	5/13/2009	San Jose	WNV
Santa Clara	STCL1280	1499	50	Cx tarsalis	5/12/2009	5/13/2009	San Jose	WNV
Santa Clara	STCL1281	1503	50	Cx tarsalis	5/12/2009	5/13/2009	San Jose	WNV
Santa Clara	STCL1281	1504	50	Cx tarsalis	5/12/2009	5/13/2009	San Jose	WNV

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.

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) 412-6298 or email: tina.feiszli@cdph.ca.gov