

California Arbovirus Surveillance Bulletin # 17

Week 21 Friday, June 5, 2009

Weekly Summary

WEEKLY COMMENTS



As of June 5, 2009, **eight** counties have reported West Nile virus (WNV) activity. At this time last year, 12 counties had reported WNV activity.

Humans

No human cases have been reported in 2009.

Horses

No equine cases have been reported in 2009.

Dead Birds & Tree Squirrels

Ten new WNV positive dead birds were reported this week from five counties: Fresno (3), Los Angeles (2), Orange (2), San Diego (1), and Santa Clara (2). These are the first WNV positive dead birds reported from Santa Clara County this year. In 2009, 23 birds have tested positive for WNV from six counties. At this time last year, 65 WNV positive dead birds had been reported from 11 counties.

No WNV positive tree squirrels have been reported this year.

Mosquito Pools

Eleven WNV positive mosquito pools were reported this week from three counties: Fresno (9), Orange (1), and Riverside (1). This is the first WNV positive mosquito pool detected in Orange County this year. In 2009, 49 mosquito pools have tested positive for WNV from six counties. At this time last year, 12 WNV positive mosquito pools had been reported from four counties.

Sentinel Chickens

No seroconversions were reported this week. In 2009, three chickens from Los Angeles County have tested positive for WNV antibodies. At this time last year, two WNV seroconversions had been reported from one 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, 2009

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Contra Costa				11		
Fresno			5	20		
Los Angeles			3	1	3	
Orange			4	1		
Riverside				3		
San Diego			8			
San Joaquin			1			
Santa Clara			2	13		
Total	0	0	23	49	3	0

California Arbovirus Surveillance Bulletin # 17

Week 21 Friday, June 5, 2009

2009 & 2008 YTD West Nile Virus Comparisons		
	2008	2009
Total # Dead Bird Reports	7,454	5,533
# Positive Counties	12	8
# Human Cases/ # Tested	0 / 277	0 / 366
# Horse Cases/ # Tested	0 / 0	0 / 74
# Positive Dead Birds/ # Tested	65 / 1,050	23 / 849
# Positive Mosquito Pools/ # Tested	12 / 3,933	49 / 5,197
# Positive Chicken Sera/ # Tested	2 / 7,456	3 / 6,693
# Positive Squirrels/ # Tested	0 / 40	0 / 26

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	366	0	0	0	0	0	0	0	0
Horses Tested	Week	2	0	0	0	0	0	0	0	0
	YTD	74	0	0	0	0	0	0	0	0

Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	102	10
	YTD	849	23
Tree Squirrels	Week	5	0
	YTD	26	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	827	0	0	0
	YTD	6,693	3	0	0
Mosquito Pools: RT-PCR	Week	734	11	0	0
	YTD	4,963	25	0	0
Mosquito Pools: RAMP	Week	27	0	N/A	N/A
	YTD	234	24	N/A	N/A

California Arbovirus Surveillance Bulletin # 17

Week 21 Friday, June 5, 2009

POSITIVES

Dead Birds

County	City	Zip Code	Species	Reported	Tested	Virus	Test Method
Fresno	Fresno	93703	American Crow	5/21/09	6/1/09	WNV	RT-PCR
Fresno	Fresno	93727	American Crow	5/22/09	6/1/09	WNV	RT-PCR
Fresno	Fresno	93726	Brewer's Blackbird	5/26/09	6/1/09	WNV	RT-PCR
Los Angeles	Lancaster	93536	Common Raven	5/20/09	6/1/09	WNV	RT-PCR
Los Angeles	Los Angeles	90027	American Crow	5/26/09	6/1/09	WNV	RT-PCR
Orange	Lake Forest	92630	American Crow	5/29/09	6/1/09	WNV	RT-PCR
Orange	Orange	92869	Cooper's Hawk	5/26/09	6/1/09	WNV	RT-PCR
San Diego	La Jolla	92037	American Crow	5/11/09	6/1/09	WNV	RT-PCR
Santa Clara	San Jose	95130	American Crow	5/27/09	5/27/09	WNV	VecTest
Santa Clara	Sunnyvale	94089	American Crow	5/27/09	5/27/09	WNV	VecTest

Mosquitoes

County	Site Code	Pool #	Species	# in Pool	Collected	Tested	City	Virus	Test Method
Fresno	CNSL1046	74	Cx quinquefasciatus	31	5/29/2009	6/4/2009	Fresno	WNV	RTPCR
Fresno	CNSL1623	63	Cx quinquefasciatus	50	5/28/2009	6/3/2009	Fresno	WNV	RTPCR
Fresno	CNSL1624	68	Cx quinquefasciatus	50	5/28/2009	6/3/2009	Fresno	WNV	RTPCR
Fresno	CNSL1627	70	Cx quinquefasciatus	34	5/28/2009	6/3/2009	Fresno	WNV	RTPCR
Fresno	CNSL1630	69	Cx quinquefasciatus	50	5/28/2009	6/3/2009	Fresno	WNV	RTPCR
Fresno	CNSL1632	66	Cx quinquefasciatus	50	5/28/2009	6/3/2009	Fresno	WNV	RTPCR
Fresno	CNSL1633	64	Cx quinquefasciatus	50	5/28/2009	6/3/2009	Fresno	WNV	RTPCR
Fresno	CNSL1634	55	Cx tarsalis	39	5/28/2009	6/3/2009	Clovis	WNV	RTPCR
Fresno	CNSL1634	56	Cx quinquefasciatus	49	5/28/2009	6/3/2009	Clovis	WNV	RTPCR
Orange	ORCO0052	497	Cx quinquefasciatus	50	5/19/2009	5/22/2009	Anaheim	WNV	RTPCR
Riverside	RIVR0002	115	Cx tarsalis	50	5/27/2009	6/2/2009	Nuevo	WNV	RTPCR

California Arbovirus Surveillance Bulletin # 17

Week 21 Friday, June 5, 2009

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
