

California Arbovirus Surveillance Bulletin #39

Week 46 Friday, November 16, 2012



Human Cases

A total of 18 new cases of West Nile virus (WNV) were reported this week from the following 6 counties: Fresno (1), Los Angeles (13), Orange (1), Riverside (1), Stanislaus (1), and Yolo (1). As of November 15, 2012, a total of 417 human cases of WNV illness have been reported in 31 counties. Of the 417 case-patients, 270 (65%) had neuroinvasive illness. The median age of the 417 individuals is 55 years (range: 1-93 years); 246 (59%) are male. Dates of symptom onset for all patients ranged from May 23 to October 27, 2012. A total of 16 WNV-related fatalities have been reported to date in Fresno (2), Glenn (1), Kern (2), Los Angeles (5), Merced (1), Placer (1), Sacramento (2), San Bernardino (1), and Sutter (1) counties. A total of 60 WNV-positive blood donors have been reported this year; 18 individuals developed symptoms and were reclassified as cases.

At this time last year, 150 WNV cases had been reported from 22 counties.

National Comments: As of November 14, 2012, 5,128 cases had been reported nationwide from 48 states and the District of Columbia (DC). This is the highest number of cases reported through the second week of November since 2003. Almost 80 percent of the cases have been reported from 12 states (Texas, California, Louisiana, Mississippi, Illinois, South Dakota, Michigan, Oklahoma, Nebraska, Colorado, Arizona, and Ohio). Of the 5,128 cases, 2,601 (51%) were classified as neuroinvasive disease, and 229 (4%) patients died.

Horses

No new equine cases were reported this week. In 2012, 22 horses from 13 counties have tested positive for WNV; 8 (36%) died or were euthanized as a result of their illness. At this time last year, 15 equine cases of WNV from 7 counties had been reported.

Dead Birds & Squirrels

A total of 14 WNV positive dead birds were reported this week from 6 counties: Los Angeles (6), Orange (1), Riverside (1), Sacramento (2), San Bernardino (3), and Ventura (1). One tree squirrel tested positive for WNV in Sacramento County. This is the first WNV positive dead squirrel reported from Sacramento County this year. In 2012, 1,632 dead birds and 22 squirrels have tested positive for recent WNV infection from 39 and 6 counties, respectively. At this time last year, 680 dead birds from 26 counties and 24 tree squirrels from 6 counties had tested positive for WNV.

Mosquito Pools

A total of 20 WNV positive mosquito pools were reported this week from 5 counties: Los Angeles (16), Orange (1), Riverside (1), San Bernardino (1), and San Joaquin (1). In 2012, 2,839 mosquito pools from 28 counties have tested positive for WNV. At this time last year, 2,083 mosquito pools had tested positive for WNV from 26 counties.

Sentinel Chickens

A total of 16 WNV seroconversions were reported this week from 7 flocks 2 counties: Butte (2), and Merced (14). In 2012, 532 WNV antibody-positive chickens have been detected among 111 flocks in 22 counties. At this time last year, 381 WNV positive chickens had been detected among 69 flocks in 15 counties.

California Arbovirus Surveillance Bulletin #39

Week 46 Friday, November 16, 2012

YTD WNV Activity by Element and County, 2012						
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Alameda	2		15			1
Butte	10	1	53	27	45	2
Calaveras		1				
Colusa	3		5		6	
Contra Costa	3		66	19	7	
El Dorado			5			
Fresno	23	3	25	147		
Glenn	7	1	16	4	8	
Imperial	1			4	10	
Kern	25	2	14	571	74	
Kings	3		2	102		
Lake	1		10	23	4	
Los Angeles	132		265	332	127	15
Madera	1	1	2	14		
Marin			1			
Mendocino			6			
Merced	13	1	42	4	14	
Monterey	1					
Napa			1	1		
Nevada			3			
Orange	36		90	69		
Placer	12		60	108	8	
Riverside	16		5	131	63	
Sacramento	29	2	466	487	36	1
San Bernardino	25		39	57	45	
San Diego	1		1			
San Francisco	1		1			
San Joaquin	10	2	55	169		
San Luis Obispo			1			
San Mateo			5			
Santa Clara			19	3		2
Santa Cruz			1			
Shasta	1	5	36	17	6	1
Solano	2		28	3	2	
Sonoma			8	3	1	
Stanislaus	25	1	51	210	8	
Sutter	8		29	19	38	
Tehama	4		5			
Tulare	7		54	144	11	
Ventura	4		38	2	2	
Yolo	6	1	98	154	4	
Yuba	5	1	11	15	13	
Totals	417	22	1,632	2,839	532	22

California Arbovirus Surveillance Bulletin #39

Week 46 Friday, November 16, 2012

2011 & 2012 YTD West Nile Virus Comparisons		
	2011	2012
Total # Dead Bird Reports	9,705	20,225
# Positive Counties	35	42
# Human Cases	150	417
# Horse Cases	15	22
# Positive Dead Birds / # Tested	680 / 2,391	1,632 / 4,263
# Positive Mosquito Pools / # Tested	2,083 / 32,484	2,839 / 32,585
# Seroconversions / # Tested	381 / 22,204	532 / 22,184
# Positive Squirrels / # Tested	24 / 106	22 / 178

TESTING SUMMARIES

Humans and Horses

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	18	0	0	0	0	0
	YTD	417	0	0	0	0	0
Horse Cases	Week	0	0	0	0	0	0
	YTD	22	0	0	0	0	0

Dead Birds & Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	59	14
	YTD	4,263	1,632
Squirrels	Week	2	1
	YTD	178	22

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	151	16	0	0
	YTD	22,184	532	0	0
Mosquito Pools	Week	349	20	0	0
	YTD	32,585	2,839	0	0

California Arbovirus Surveillance Bulletin #39

Week 46 Friday, November 16, 2012

POSITIVES: WEEK 46

Humans

WNV Cases							
ID	Report Date	County/Local Health Jurisdiction	Age	Sex	Clin Pres	Onset Date	WNV Fatality?
12-0400	11/08/12	LOS ANGELES	63	M	WNND	10/04/12	NO
12-0401	11/08/12	LOS ANGELES	35	F	WNF	10/12/12	NO
12-0402	11/08/12	LOS ANGELES	28	M	WNND	10/01/12	NO
12-0403	11/08/12	LOS ANGELES	55	F	WNND	09/30/12	NO
12-0404	11/08/12	LOS ANGELES	61	M	WNND	10/18/12	NO
12-0405	11/08/12	LOS ANGELES	65	F	WNF	09/26/12	NO
12-0406	11/08/12	LOS ANGELES	50	M	WNND	10/15/12	NO
12-0407	11/08/12	LOS ANGELES	64	M	WNND	09/22/12	NO
12-0408	11/08/12	LOS ANGELES	82	F	WNND	10/11/12	NO
12-0409	11/08/12	LOS ANGELES	16	M	WNND	10/27/12	NO
12-0410	11/08/12	LOS ANGELES	63	F	WNND	10/06/12	NO
12-0411	11/08/12	LOS ANGELES	62	F	WNF	09/24/12	NO
12-0412	11/08/12	LOS ANGELES	56	M	WNND	10/14/12	NO
12-0413	11/08/12	RIVERSIDE	74	M	WNND	10/08/12	NO
12-0414	11/08/12	YOLO	>18	M	WNND	08/28/12	NO
12-0415	11/09/12	STANISLAUS	61	M	WNND	09/11/12	NO
12-0416	11/09/12	ORANGE	48	F	WNND	Week 43	NO
12-0417	11/14/12	FRESNO	46	F	WNND	10/10/12	NO
Presumptive Viremic Blood Donors (Asymptomatic Infections)							
BD12-0048	11/08/12	LOS ANGELES	54	F			

Dead Birds & Squirrels

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Los Angeles	LA Co Vet	Los Angeles	90035	American Crow	11/9/2012	WNV	Recent	VecTest
Los Angeles	LA Co Vet	Los Angeles	90035	American Crow	11/3/2012	WNV	Recent	VecTest
Los Angeles	LA Co Vet	Marina del Rey	90292	American Crow	11/5/2012	WNV	Recent	VecTest
Los Angeles	LA Co Vet	Santa Monica	90404	American Crow	11/4/2012	WNV	Recent	VecTest
Los Angeles	LA Co Vet	Santa Monica	90405	American Crow	11/4/2012	WNV	Recent	VecTest
Los Angeles	LA Co Vet	Santa Monica	90405	American Crow	10/29/2012	WNV	Recent	VecTest
Orange	Orange Co VCD	Santa Ana	92706	American Crow	11/5/2012	WNV	Recent	RT-PCR
Riverside	Riverside VCP	Murrieta	92562	Barn Owl	11/5/2012	WNV	Recent	RT-PCR
Sacramento	Sac-Yolo MVCD	Sacramento	95826	Western Scrub-Jay	11/7/2012	WNV	Recent	RT-PCR
Sacramento	Sac-Yolo MVCD	Sacramento	95831	Owl	11/6/2012	WNV	Recent	RT-PCR
San Bernardino	San Bernardino VCP	Upland	91786	American Crow	10/23/2012	WNV	Recent	RT-PCR
San Bernardino	San Bernardino VCP	Grand Terrace	92313	American Coot	10/26/2012	WNV	Recent	RT-PCR
San Bernardino	San Bernardino VCP	Yucaipa	92399	American Crow	10/24/2012	WNV	Recent	RT-PCR
Ventura	Ventura EHD	Simi Valley	93063	House Finch	10/31/2012	WNV	Recent	RT-PCR
Sacramento	Sac-Yolo MVCD	Gold River	95670	Unknown - Squirrel	11/7/2012	WNV	Recent	RT-PCR

California Arbovirus Surveillance Bulletin #39

Week 46 Friday, November 16, 2012

Mosquito Pools

County	Site Code	Pool #	City	Species	# in Pool	Trap Type	Collected	Virus	Test Method
Los Angeles	GRLA2164	1300	Pico Rivera	Cx. quinquefasciatus	16	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2165	1295	Downey	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2166	1303	Montebello	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2274	1312	Lakewood	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2274	1315	Lakewood	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2274	1316	Lakewood	Cx. quinquefasciatus	52	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2278	1311	Long Beach	Cx. quinquefasciatus	53	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2555	6288	Encino	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2574	6285	Sherman Oaks	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA2580	6284	Sherman Oaks	Cx. quinquefasciatus	34	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA3046	1323	Bellflower	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA3046	1324	Bellflower	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA3046	1326	Bellflower	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA3048	1331	Pico Rivera	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA3048	1332	Pico Rivera	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Los Angeles	GRLA3048	1335	Pico Rivera	Cx. quinquefasciatus	50	GRVD	11/7/2012	WNV	RTPCR
Orange	ORCO0002	1569	Fullerton	Cx. quinquefasciatus	44	GRVD	11/6/2012	WNV	RTPCR
Riverside	COAV0331	3288	Palm Desert	Cx. quinquefasciatus	12	GRVD	11/8/2012	WNV	RTPCR
San Bernardino	WVAL2020	685	Fwy CA 71	Cx. quinquefasciatus	22	GRVD	11/8/2012	WNV	RTPCR
San Joaquin	SJCM8018	731	Stockton	Cx. tarsalis	50	CO2	8/20/2012	WNV	RTPCR

Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band 01	Band 02	Band 03	Band 04
Butte	BUCO0005	Honcut	11/6/2012	WNV	1550			
Butte	BUCO0007	Chico	11/6/2012	WNV	1574			
Merced	MERC0003	Gustine	10/31/2012	WNV	1913	1915	1917	1918
Merced	MERC0502	Hilmar	10/31/2012	WNV	1941	1942		
Merced	MERC0002	Dos Palos	11/2/2012	WNV	1908	1909		
Merced	MERC0004	Los Banos	11/2/2012	WNV	1919	1920	1921	
Merced	MERC0501	El Nido	11/2/2012	WNV	1931	1932	1934	

California Arbovirus Surveillance Bulletin #39

Week 46 Friday, November 16, 2012

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.

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.