

California Arbovirus Surveillance Bulletin #38

Week 45 Friday, November 7, 2014

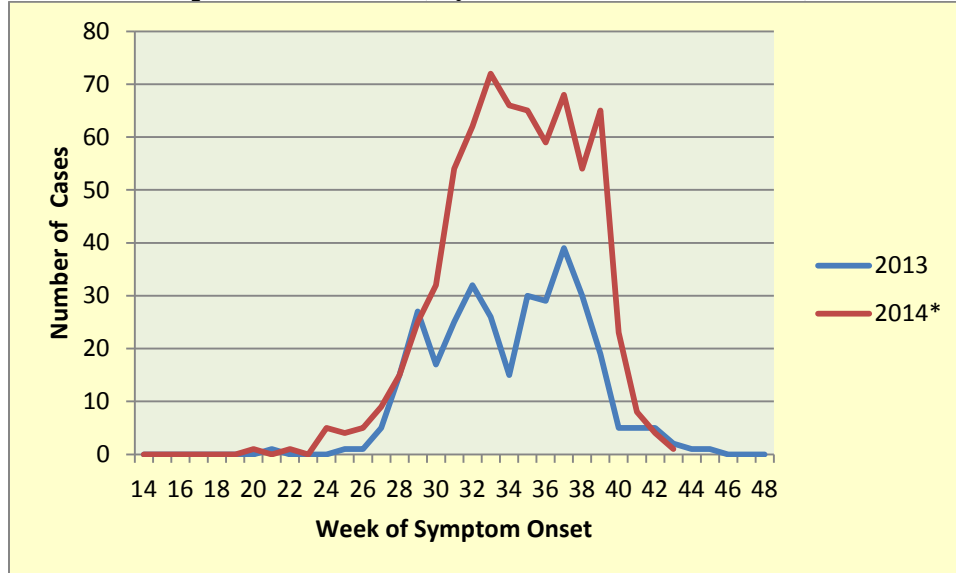


WEEKLY UPDATE

Humans

A total of 51 new cases of West Nile virus (WNV) disease were reported to the California Department of Public Health (CDPH) this week from the following 8 counties: Los Angeles (16), Orange (25), Riverside (2), San Bernardino (1), San Diego (3), Santa Clara (2), Sutter (1), and Ventura (1). This is the first WNV case reported from Ventura County this year. As of November 3, a total of 705 human cases of WNV disease have been reported from 31 counties. As of this date in 2013, 339 cases had been reported from 29 counties. Of the 705 case-patients, 477 (68%) had neuroinvasive illness. The median age of the 705 individuals is 59 years (range: 3 months – 94 years); 446 (63%) are male. Dates of symptom onset for individuals where data are available range from May 15 to October 18. A total of 23 WNV-related fatalities have been reported to CDPH from 10 counties: Glenn (1), Los Angeles (5), Orange (6), Placer (1), Sacramento (2), San Diego (1), Shasta (1), Stanislaus (2), Sutter (3), and Tehama (1). In addition, 80 asymptomatic WNV-positive blood donors have been reported this year from 19 counties: Butte (1), Contra Costa (1), Fresno (11), Kern (3), Kings (1), Los Angeles (22), Orange (15), Placer (2), Riverside (1), San Bernardino (6), San Diego (2), San Francisco (1), San Joaquin (2), Santa Clara (3), Shasta (1), Stanislaus (4), Sutter (1), Tulare (2), and Yuba (1).

Number of reported WNV cases, by week of onset—California, 2013-2014*



*Reported to CDPH as of 11/03/14. Data incomplete due to reporting delays.

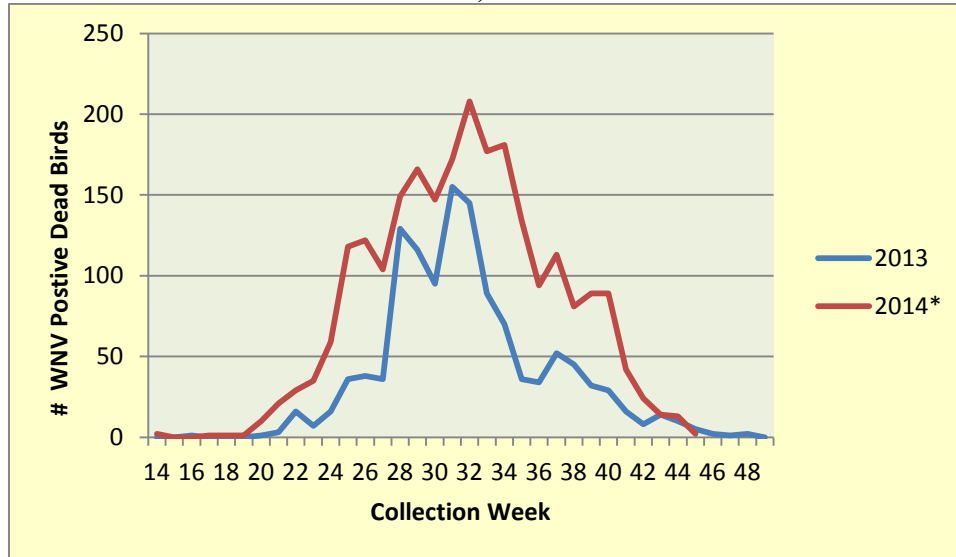
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Dead Birds

A total of 21 WNV positive dead birds were reported this week from the following 4 counties: El Dorado (1), Orange (6), San Diego (2), and Santa Clara (12). In 2014, 2,411 dead birds have tested positive for WNV from 36 counties. At this time last year, 1,216 WNV positive dead birds had been detected in 38 counties.

Number of reported WNV positive dead birds, by week of collection--
California, 2013-2014*

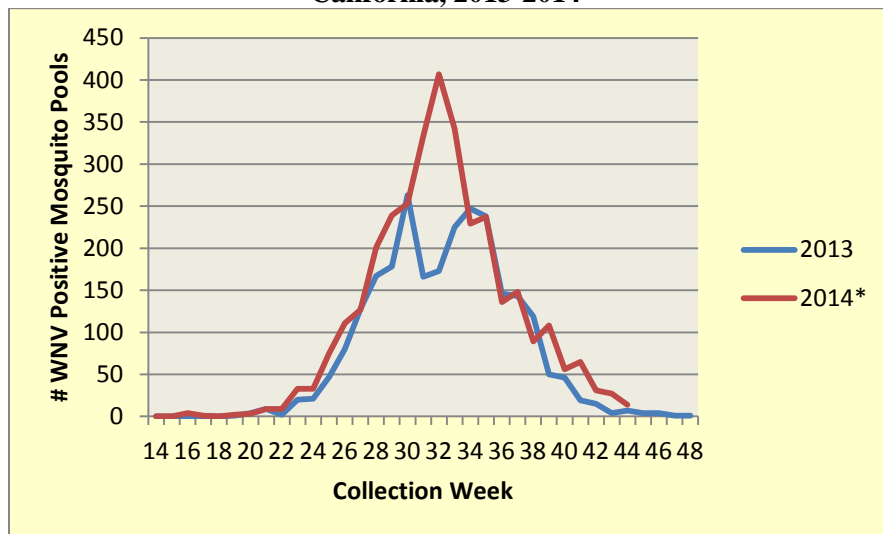


*Reported to CDPH as of 11/07/14. Data incomplete due to reporting delays.

Mosquito Pools

A total of 13 WNV positive mosquito pools were reported this week from the following 2 counties: Los Angeles (8) and Orange (5). In 2014, 3,322 mosquito pools from 30 counties have tested positive for WNV. At this time last year, 2,518 WNV positive mosquito pools had been reported from 27 counties.

Number of reported WNV positive mosquito pools, by week of collection--
California, 2013-2014*



*Reported to CDPH as of 11/07/14. Data incomplete due to reporting delays.

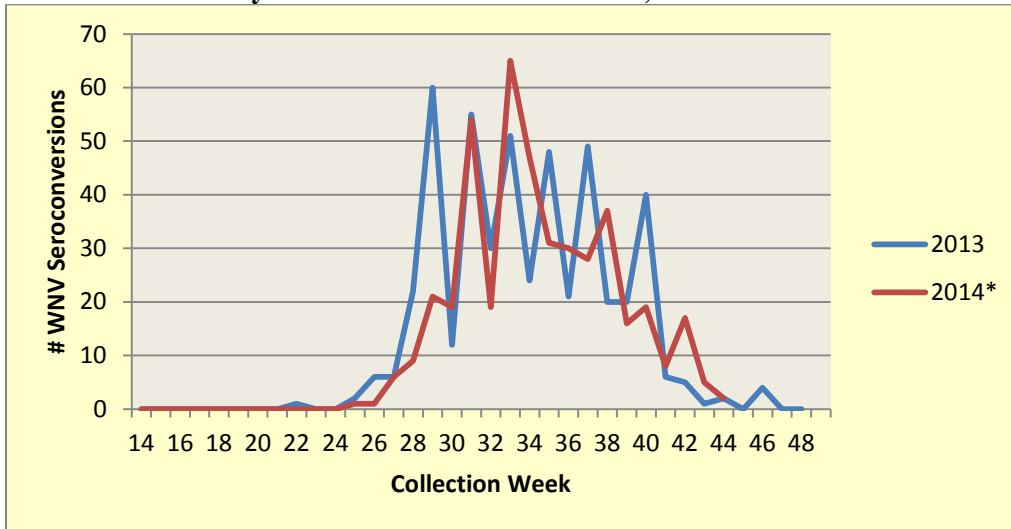
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Sentinel Chickens

A total of 3 new WNV seroconversions were reported this week from 3 flocks located in the following 2 counties: Los Angeles (2) and Riverside (1). In 2014, 436 WNV positive chickens have been reported from 96 flocks located in 23 counties. At this time last year, 480 WNV seroconversions had been reported from 111 flocks in 26 counties.

**Number of reported WNV sentinel chicken seroconversions,
by week of collection--California, 2013-2014***



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YTD Activity by Element and County, 2014				
County	Humans*	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda	1	96	16	1
Butte	22	22	40	37
Colusa	5	4	1	9
Contra Costa	4	44	25	15
El Dorado		7		
Fresno	33	9	138	
Glenn	12	4	8	9
Humboldt		2		
Imperial	2			
Kern	10	3	111	
Kings	3	3	150	
Lake	1	18	71	5
Los Angeles	200	99	344	142
Madera	3	5	37	
Marin		6	3	
Mendocino	1			
Merced	1	8	11	10
Napa		12		
Nevada				2
Orange	257	422	493	
Placer	7	40	77	
Riverside	11	1	91	41
Sacramento	10	294	487	10
San Bernardino	14	17	97	32
San Diego	9	28	1	2
San Joaquin	8	53	239	
San Mateo		19	15	
Santa Barbara		2		
Santa Clara	11	916	30	5
Santa Cruz		1		
Shasta	2	6	33	12
Solano	1	33	11	23
Sonoma		37	9	3
Stanislaus	35	47	176	12
Sutter	5	19	52	31
Tehama	5			13
Tulare	17	40	311	4
Ventura	1	7		
Yolo	10	71	221	9
Yuba	4	16	24	9
Totals	705	2,411	3,322	436

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2013 & 2014 YTD West Nile Virus Comparisons		
	2013	2014
Total # Dead Bird Reports	14,278	14,168
# Positive Counties	42	40
# Human Cases	339	705
# Positive Dead Birds / # Tested	1,216 / 3,184	2,411 / 3,967
# Positive Mosquito Pools / # Tested	2,518 / 30,181	3,322 / 31,038
# Seroconversions / # Tested	480 / 16,305	436 / 14,490

TESTING SUMMARIES

Humans

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	51	0	0	0	0	0
	YTD	705	0	0	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	62	21
	YTD	3,967	2,411

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	286	3	0	0
	YTD	14,490	436	0	0
Mosquito Pools	Week	469	13	0	0
	YTD	31,038	3,322	0	0

NEW POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Method
El Dorado	El Dorado Co Env Management	Somerset	95684	Common Raven	10/28/2014	WNV	RT-PCR
Orange	Orange Co VCD	Buena Park	90620	American Crow	10/27/2014	WNV	RT-PCR
Orange	Orange Co VCD	Dana Point	92629	American Crow	10/29/2014	WNV	RT-PCR
Orange	Orange Co VCD	Fountain Valley	92708	American Crow	10/29/2014	WNV	RT-PCR
Orange	Orange Co VCD	Irvine	92612	American Crow	10/26/2014	WNV	RT-PCR
Orange	Orange Co VCD	Santa Ana	92704	American Crow	10/28/2014	WNV	RT-PCR
Orange	Orange Co VCD	Santa Ana	92707	American Crow	10/27/2014	WNV	RT-PCR
San Diego	San Diego Co VCP	La Mesa	91942	American Crow	10/28/2014	WNV	RT-PCR
San Diego	San Diego Co VCP	San Diego	92101	American Crow	10/31/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Morgan Hill	95037	Western Scrub-Jay	11/4/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Mountain View	94035	American Crow	10/22/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Mountain View	94041	American Crow	10/24/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Palo Alto	94306	American Crow	10/28/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95120	American Crow	10/21/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95120	American Crow	10/22/2014	WNV	RT-PCR

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Santa Clara	Santa Clara Co VCD	San Jose	95124	American Crow	10/27/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	7/7/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	6/23/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	10/24/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95131	American Crow	11/3/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	6/18/2014	WNV	RT-PCR

Mosquitoes

County	Site Code	Pool #	City	Species	# in Pool	Trap	Collected	Virus	Method
Los Angeles	GRLA2017	5922	Toluca Lake	Cx. quinquefasciatus	21	GRVD	10/29/2014	WNV	RTPCR
Los Angeles	GRLA2100	847	Norwalk	Cx. quinquefasciatus	50	GRVD	10/28/2014	WNV	RTPCR
Los Angeles	GRLA2145	850	Long Beach	Cx. quinquefasciatus	23	GRVD	10/29/2014	WNV	RTPCR
Los Angeles	GRLA2346	834	Montebello	Cx. quinquefasciatus	47	GRVD	10/28/2014	WNV	RTPCR
Los Angeles	GRLA2995	5951	Woodland Hills	Cx. quinquefasciatus	50	GRVD	10/31/2014	WNV	RTPCR
Los Angeles	GRLA3038	5924	Valley Village	Cx. quinquefasciatus	33	GRVD	10/29/2014	WNV	RTPCR
Los Angeles	GRLA3069	5925	Valley Village	Cx. quinquefasciatus	47	GRVD	10/29/2014	WNV	RTPCR
Los Angeles	GRLA3070	855	Commerce	Cx. quinquefasciatus	50	GRVD	10/30/2014	WNV	RTPCR
Orange	ORCO217	2629	Santa Ana	Cx. quinquefasciatus	50	GRVD	10/28/2014	WNV	RTPCR
Orange	ORCO217	2630	Santa Ana	Cx. quinquefasciatus	50	GRVD	10/28/2014	WNV	RTPCR
Orange	ORCO217	2658	Santa Ana	Cx. quinquefasciatus	34	GRVD	10/30/2014	WNV	RTPCR
Orange	ORCO36	2614	Cypress	Cx. quinquefasciatus	47	GRVD	10/28/2014	WNV	RTPCR
Orange	ORCO81	2671	Seal Beach	Cx. quinquefasciatus	47	GRVD	10/30/2014	WNV	RTPCR

Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band 01
Los Angeles	LACW1005	El Segundo	10/23/2014	WNV	1629
Los Angeles	LACW1010	Los Angeles (Miracle Mile)	10/17/2014	WNV	1652
Riverside	COAV0060	North Shore	10/27/2014	WNV	1234

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.

Dead Birds

Oral swab samples from corvids are collected onto RNase cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by 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.

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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.