

California Arbovirus Surveillance Bulletin #40

Week 47 Friday, November 21, 2014

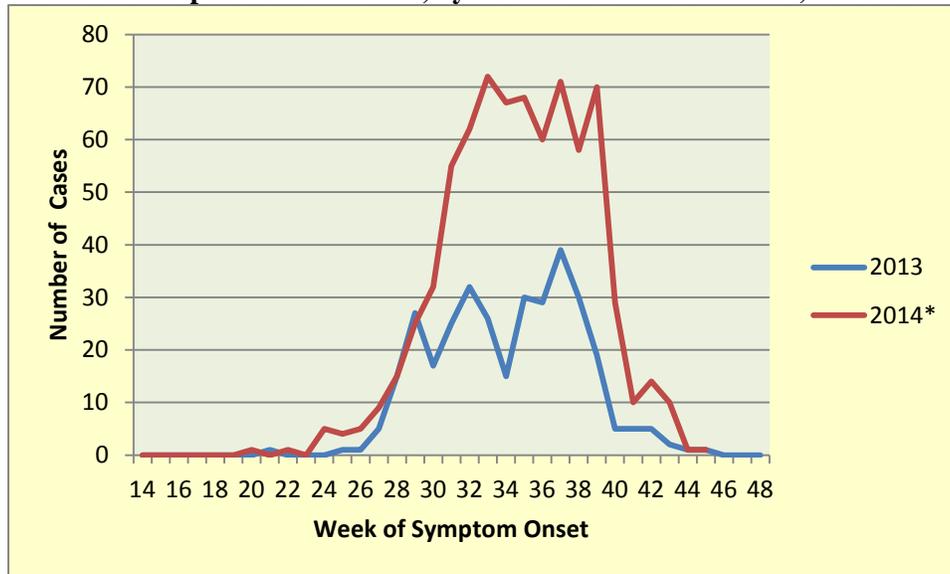


WEEKLY UPDATE

Humans

A total of 19 new cases of West Nile virus (WNV) disease were reported to the California Department of Public Health (CDPH) this week from the following 7 counties: Fresno (1), Kern (1), Los Angeles (11), Orange (3), San Bernardino (1), Stanislaus (1), and Sutter (1). As of November 17, a total of 752 human cases of WNV disease have been reported from 31 counties. As of this date in 2013, 356 cases had been reported from 30 counties. Of the 752 case-patients, 511 (68%) had neuroinvasive illness. The median age of the 752 individuals is 59 years (range: 3 months – 94 years); 476 (63%) are male. Dates of symptom onset for individuals where data are available range from May 15 to November 4. A total of 27 WNV-related fatalities have been reported to CDPH from 11 counties: Glenn (1), Kern (1), Los Angeles (7), Orange (7), Placer (1), Sacramento (2), San Diego (1), Shasta (1), Stanislaus (2), Sutter (3), and Tehama (1). In addition, 82 asymptomatic WNV-positive blood donors have been reported this year from 19 counties: Butte (1), Contra Costa (2), Fresno (11), Kern (3), Kings (1), Los Angeles (23), 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 11/17/14. Data incomplete due to reporting delays.

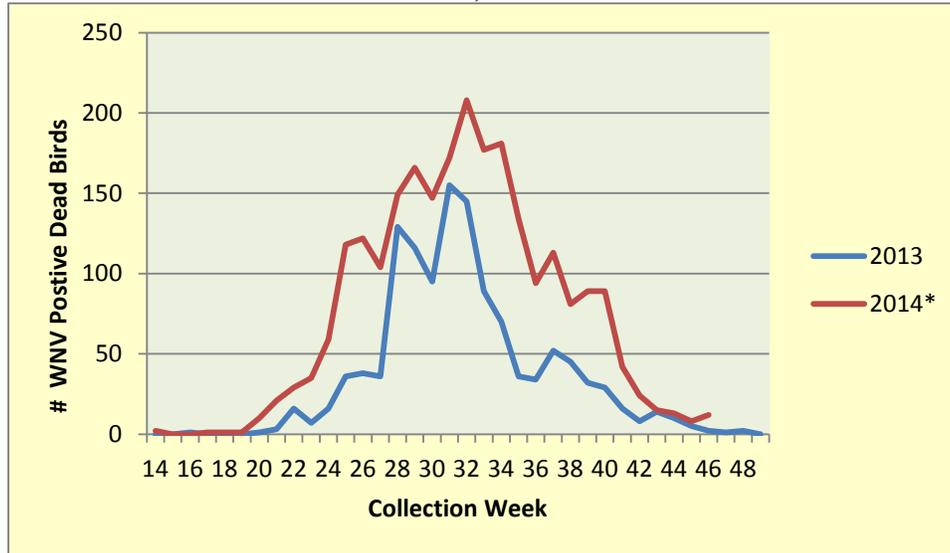
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Dead Birds

A total of 13 WNV positive dead birds were reported this week from the following 3 counties: Orange (1), San Diego (4), and Santa Clara (8). In 2014, 2,430 dead birds have tested positive for WNV from 36 counties. At this time last year, 1,235 WNV positive dead birds had been detected in 38 counties.

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

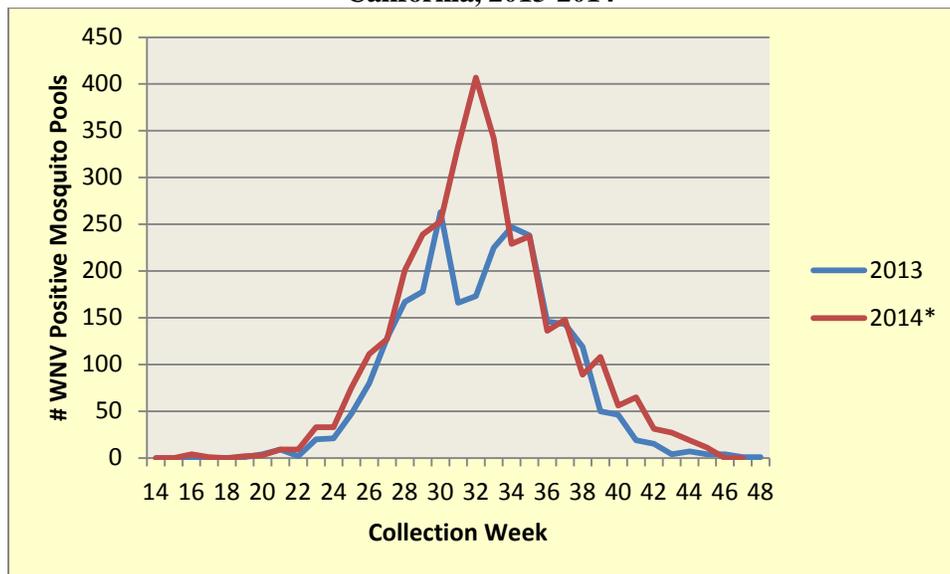


*Reported to CDPH as of 11/21/14. Data incomplete due to reporting delays.

Mosquito Pools

No positive mosquitoes were reported this week. In 2014, 3,338 mosquito pools from 30 counties have tested positive for WNV. At this time last year, 2,527 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 11/21/14. Data incomplete due to reporting delays.

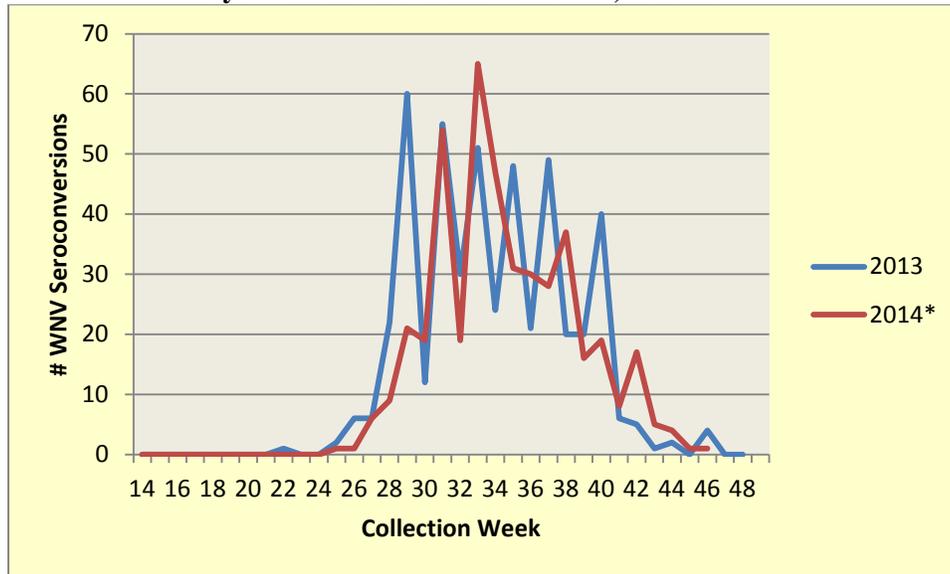
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Sentinel Chickens

Three WNV seroconversions were reported this week from 3 flocks in Los Angeles (2) and Riverside (1) counties. In 2014, 440 WNV positive chickens have been reported from 96 flocks located in 23 counties. At this time last year, 483 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	23	22	40	37
Colusa	5	4	1	9
Contra Costa	4	44	25	15
El Dorado		7		
Fresno	35	9	138	
Glenn	12	4	8	9
Humboldt		2		
Imperial	2			
Kern	12	3	111	
Kings	3	3	150	
Lake	1	18	71	5
Los Angeles	232	99	354	144
Madera	3	5	37	
Marin		6	3	
Mendocino	1			
Merced	1	8	11	11
Napa		12		
Nevada				2
Orange	262	427	499	
Placer	7	40	77	
Riverside	11	1	91	42
Sacramento	10	294	487	10
San Bernardino	16	17	97	32
San Diego	9	34	1	2
San Joaquin	8	53	239	
San Mateo		19	15	
Santa Barbara		2		
Santa Clara	11	924	30	5
Santa Cruz		1		
Shasta	2	6	33	12
Solano	1	33	11	23
Sonoma		37	9	3
Stanislaus	36	47	176	12
Sutter	7	19	52	31
Tehama	4			13
Tulare	18	40	311	4
Ventura	1	7		
Yolo	10	71	221	9
Yuba	4	16	24	9
Totals	752	2,430	3,338	440

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2013 & 2014 YTD West Nile Virus Comparisons		
	2013	2014
Total # Dead Bird Reports	14,434	14,383
# Positive Counties	43	40
# Human Cases	357	752
# Positive Dead Birds / # Tested	1,235 / 3,216	2,430 / 4,025
# Positive Mosquito Pools / # Tested	2,527 / 30,602	3,338 / 31,419
# Seroconversions / # Tested	483 / 16,862	440 / 14,833

TESTING SUMMARIES

Humans

Human Cases	Week	WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
	Week	19	0	0	0	0	0
	YTD	752	0	0	0	0	0

Dead Birds

Dead Birds	Week	Number Tested	WNV Positive
		YTD	4,025

Chickens & Mosquitoes

Chicken Sera	Week	Number Tested	WNV Positive	SLEV Positive	WEEV Positive
		YTD	14,833	440	0
Mosquito Pools	Week	159	0	0	0
	YTD	31,419	3,338	0	0

NEW POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Method
Orange	Orange Co VCD	Huntington Beach	92646	American Crow	11/12/2014	WNV	RT-PCR
San Diego	San Diego Co VCP	Ramona	92065	American Crow	11/12/2014	WNV	RT-PCR
San Diego	San Diego Co VCP	Ramona	92065	American Crow	11/12/2014	WNV	RT-PCR
San Diego	San Diego Co VCP	Ramona	92065	American Crow	11/14/2014	WNV	RT-PCR
San Diego	San Diego Co VCP	San Diego	92127	American Crow	11/14/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Cupertino	95014	American Crow	11/6/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Morgan Hill	95037	American Crow	11/5/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	10/24/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95127	Steller's Jay	11/14/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95138	American Crow	11/10/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Santa Clara	95050	American Crow	11/4/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Saratoga	95070	American Crow	11/12/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94086	American Crow	11/7/2014	WNV	RT-PCR

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Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band 01
Los Angeles	LACW1002	Torrance	10/30/14	WNV	1612
Los Angeles	LACW1049	Inglewood	11/4/14	WNV	1699
Riverside	COAV0200	Mecca	11/11/14	WNV	1153

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.

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