

California Arbovirus Surveillance Bulletin #15

Week 22 Friday, May 30, 2014



WEEKLY UPDATE

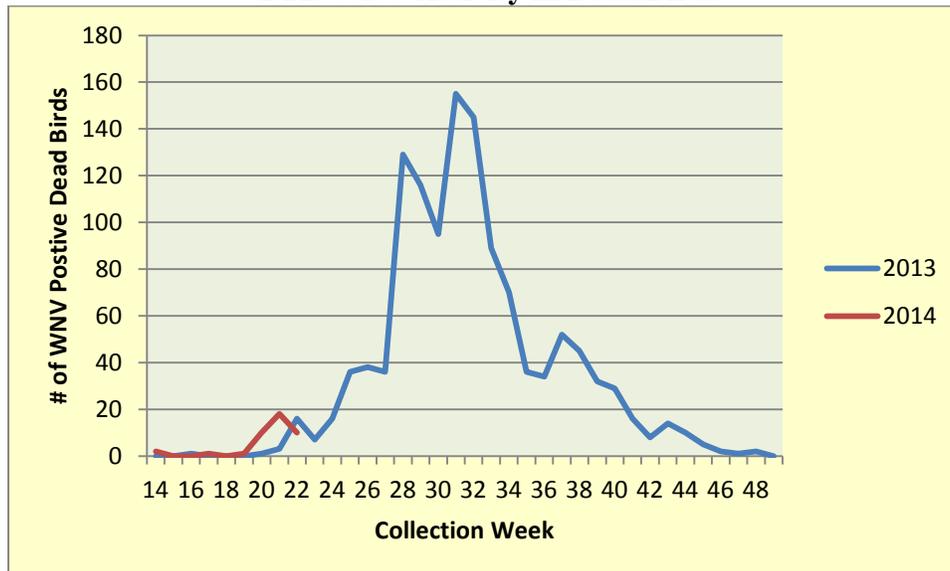
Humans

No human cases or asymptomatic infections have been reported in 2014. At this time last year, a human case of West Nile virus (WNV) illness had been reported from Sacramento County.

Dead Birds

A total of 19 WNV positive dead birds were reported this week from the following four counties: Orange (3), Santa Clara (13), Solano (1) and Stanislaus (2). **This is the first indication of WNV activity in Orange and Stanislaus counties this year.** To date this year, 52 birds have tested positive for WNV from 11 counties. At this time last year, four WNV positive dead birds had been detected in four counties.

YTD WNV Activity in Dead Birds



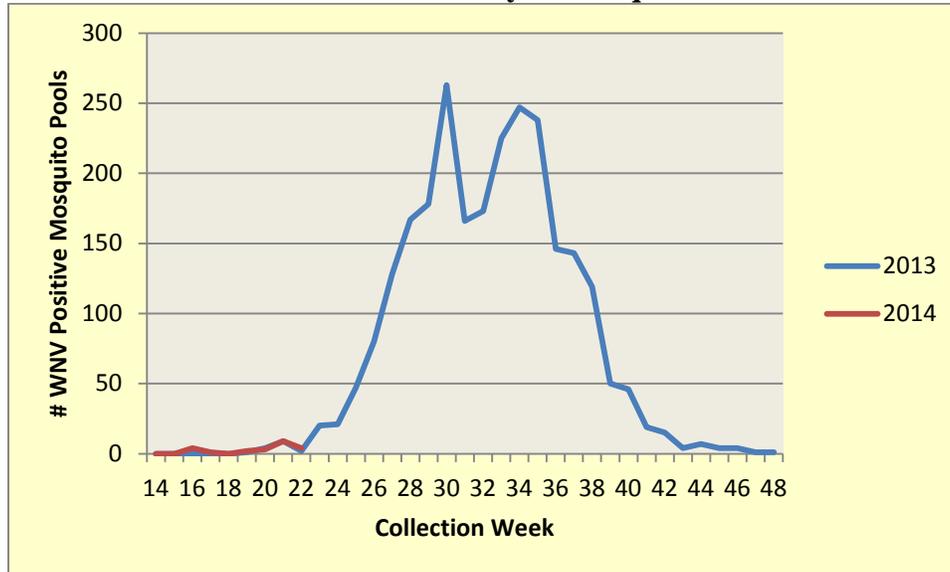
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Mosquito Pools

This week, five WNV positive mosquito pools were reported from the following three counties: San Bernardino (1), San Joaquin (2), and Santa Clara (2). **These are the first WNV positive mosquito pools from San Joaquin County this year.** In 2014, 23 mosquito pools from six counties have tested positive for WNV. At this time last year, 15 WNV positive mosquito pools had been reported from five counties.

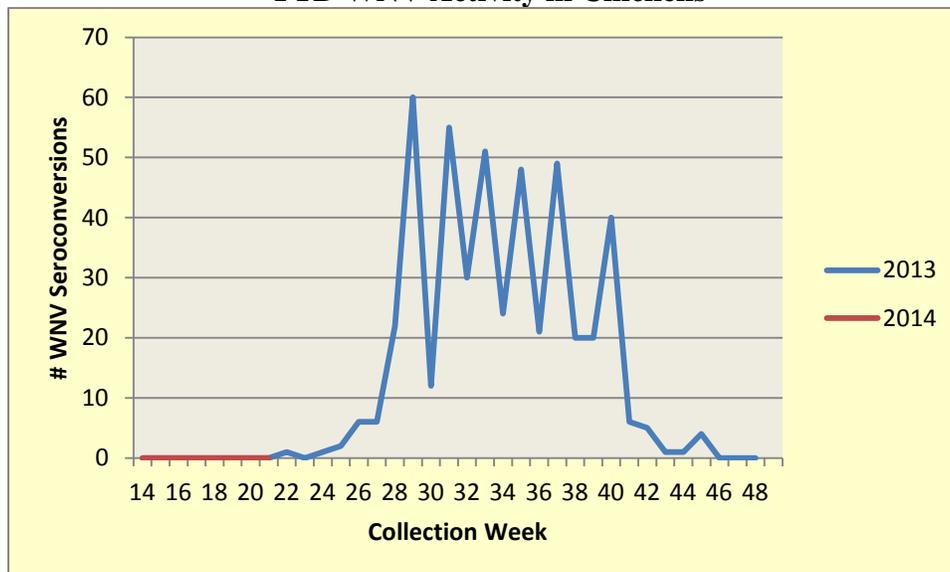
YTD WNV Activity in Mosquitoes



Sentinel Chickens

No seroconversions were reported this week. To date this year, one WNV positive chicken has been reported from Los Angeles County. At this time last year, no seroconversions had been detected.

YTD WNV Activity in Chickens



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YTD Activity by Element and County, 2014				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Contra Costa		2		
Fresno		1		
Lake		3		
Los Angeles		2	1	1
Orange		3		
Sacramento		1		
San Bernardino			7	
San Joaquin		1	2	
Santa Clara		30	4	
Solano		2		
Sonoma			1	
Stanislaus		2		
Tulare		5	8	
Totals	0	52	23	1

TESTING SUMMARIES

Humans

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

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	101	19
	YTD	414	52

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	472	0	0	0
	YTD	3,329	1	0	0
Mosquito Pools	Week	821	5	0	0
	YTD	4,104	23	0	0

2013 & 2014 YTD West Nile Virus Comparisons

	2013	2014
Total # Dead Bird Reports	3,432	2,583
# Positive Counties	7	13
# Human Cases	1	0
# Positive Dead Birds / # Tested	4 / 632	52 / 414
# Positive Mosquito Pools / # Tested	15 / 7,731	23 / 4,104
# Seroconversions / # Tested	0 / 3,554	1 / 3,329

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NEW POSITIVES

Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Method
Orange	Orange Co VCD	Buena Park	90620	Rock Dove	5/21/2014	WNV	RT-PCR
Orange	Orange Co VCD	Santa Ana	92704	American Crow	5/22/2014	WNV	RT-PCR
Orange	Orange Co VCD	Anaheim	92805	American Crow	5/22/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Sunnyvale	94087	American Crow	5/21/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Campbell	95008	American Crow	5/23/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	Campbell	95008	American Crow	5/27/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	5/23/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95118	American Crow	5/27/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95118	American Crow	5/27/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95118	American Crow	5/27/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95124	American Crow	5/28/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95124	American Crow	5/27/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	5/26/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	5/28/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	5/23/2014	WNV	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95129	American Crow	5/27/2014	WNV	RT-PCR
Solano	Solano Co MAD	Vallejo	94592	American Crow	5/28/2014	WNV	RAMP
Stanislaus	Eastside MAD	Modesto	95350	American Crow	5/23/2014	WNV	RT-PCR
Stanislaus	Eastside MAD	Modesto	95354	Western Scrub-Jay	5/22/2014	WNV	RT-PCR

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap	Collected	Virus	Method
San Bernardino	WVAL6004	480	Cx. quinquefasciatus	Ontario	50	GRVD	5/28/2014	WNV	RTPCR
San Joaquin	SJCM8018	314	Cx. tarsalis	Stockton	36	CO2	5/28/2014	WNV	RTPCR
San Joaquin	SJCM8159	307	Cx. tarsalis	Stockton	25	CO2	5/28/2014	WNV	RTPCR
Santa Clara	STCL2079	5151	Cx. pipiens	Sunnyvale	8	CO2	5/23/2014	WNV	RTPCR
Santa Clara	STCL979	5165	Cx. pipiens	Santa Clara	29	CO2	5/28/2014	WNV	RTPCR

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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.westmile.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.westmilemaps.usgs.gov