

California Arbovirus Surveillance Bulletin #12

Week 21 Friday, May 27, 2016



Weekly Update

Humans

No human cases have been reported in 2016.

Dead Birds

This week, a total of 28 dead birds tested positive for West Nile virus (WNV) from the following five counties: Los Angeles (4), Orange (3), Sacramento (2), San Diego (14), and Santa Clara (5) counties. In 2016, 53 dead birds have tested positive for WNV from six counties, whereas at this time last year, 49 WNV positive birds had been reported from 12 counties.

Mosquito Pools

West Nile virus

A total of 8 WNV positive mosquito pools were reported this week from the following six counties: Kern (1), Los Angeles (1), Riverside (2), San Bernardino (1), San Joaquin (2), and Tulare (1). **This is the first detection of WNV activity in San Joaquin County in 2016.** To date this year, 27 WNV positive mosquito pools have been reported from seven counties, whereas at this time last year, 40 WNV positive mosquito pools had been reported from six counties.

St. Louis encephalitis virus

A total of six mosquito pools tested positive for St. Louis encephalitis virus (SLEV) from Kern County. To date this year, nine SLEV positive mosquito pools have been reported from Kern County.

Sentinel Chickens

This week, a total of 342 sentinel chicken blood samples were tested from nine counties; no positives were detected. To date this year, no seroconversions have been reported.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	3,194	2,156
# Positive Counties	12	11
# Human Cases	0	0
# Positive Dead Birds / # Tested	49 / 565	53 / 422
# Positive Mosquito Pools / # Tested	40 / 4,932	27 / 7,815
# Seroconversions / # Tested	0 / 2,515	0 / 1,235

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YTD WNV Activity by Element and County, 2016				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Kern			1	
Los Angeles		6	4	
Orange		5	2	
Riverside			5	
Sacramento		3		
San Bernardino			6	
San Diego		30	2	
San Joaquin			2	
Santa Clara		8		
Solano		1		
Tulare			5	
Totals	0	53	27	0

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Number of Cases Reported	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Total Tested	WNV Positive
Dead Birds	Week	111	28
	YTD	422	53

Sentinel Chickens

		Total Tested	WNV +	SLEV +	WEEV +
Chicken Sera	Week	342	0	0	0
	YTD	1,235	0	0	0

Mosquitoes

		Positive / Total Tested						
Mosquito Pools		WNV	SLEV	WEEV	CHIK	DENV	ZIKA	
		Week	8 / 1,155	6 / 579	0 / 579	0 / 1	0 / 1	0 / 1
		YTD	27 / 7,815	9 / 4,836	0 / 4,836	0 / 3	0 / 3	0 / 3

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NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Sylmar	91342	American Crow	5/20/2016	WNV
Los Angeles	Los Angeles Co Veterinarian	Burbank	91506	American Crow	5/18/2016	WNV
Los Angeles	Los Angeles Co Veterinarian	Castaic	91384	American Crow	5/19/2016	WNV
Los Angeles	Los Angeles Co Veterinarian	La Crescenta	91241	American Crow	5/19/2016	WNV
Orange	Orange Co VCD	Garden Grove	92843	American Crow	5/17/2016	WNV
Orange	Orange Co VCD	Laguna Woods	92637	American Crow	5/23/2016	WNV
Orange	Orange Co VCD	Orange	92868	American Crow	5/25/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	Yellow-billed Magpie	5/19/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	Encinitas	92024	American Crow	5/26/2016	WNV
San Diego	San Diego Co VCP	Escondido	92029	American Crow	5/25/2016	WNV
San Diego	San Diego Co VCP	San Diego	92014	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92121	American Crow	5/25/2016	WNV
San Diego	San Diego Co VCP	San Diego	92121	American Crow	5/25/2016	WNV
San Diego	San Diego Co VCP	San Diego	92123	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92126	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92126	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92126	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92126	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92126	American Crow	5/25/2016	WNV
San Diego	San Diego Co VCP	San Diego	92129	American Crow	5/25/2016	WNV
San Diego	San Diego Co VCP	San Diego	92130	American Crow	5/23/2016	WNV
San Diego	San Diego Co VCP	San Diego	92130	American Crow	5/25/2016	WNV
San Diego	San Diego Co VCP	San Diego	92134	American Crow	5/25/2016	WNV
Santa Clara	Santa Clara Co VCD	Los Gatos	95032	American Crow	5/2/2016	WNV
Santa Clara	Santa Clara Co VCD	Mountain View	94040	American Crow	4/12/2016	WNV
Santa Clara	Santa Clara Co VCD	Mountain View	94040	American Crow	5/2/2016	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95123	American Crow	5/12/2016	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	4/27/2016	WNV

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Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Kern	KERN15	128	Cx. quinquefasciatus	Bakersfield	50	CO2	5/19/16	SLEV
Kern	KERN2002	138	Cx. quinquefasciatus	Bakersfield	50	GRVD	5/20/16	SLEV
Kern	KERN2010	106	Cx. quinquefasciatus	Bakersfield	37	GRVD	5/18/16	SLEV
Kern	KERN2014	105	Cx. quinquefasciatus	Bakersfield	50	GRVD	5/18/16	SLEV
Kern	KERN2016	108	Cx. quinquefasciatus	Bakersfield	50	GRVD	5/18/16	WNV
Kern	KERN2020	107	Cx. quinquefasciatus	Bakersfield	50	GRVD	5/18/16	SLEV
Kern	KERN2051	118	Cx. quinquefasciatus	Bakersfield	50	GRVD	5/19/16	SLEV
Los Angeles	GRLA3036	5225	Cx. quinquefasciatus	Canoga Park	50	GRVD	5/19/16	WNV
Riverside	COAV208	1818	Cx. quinquefasciatus	Palm Springs	9	CO2	5/22/16	WNV
Riverside	COAV208	1819	Cx. quinquefasciatus	Palm Springs	14	CO2	5/22/16	WNV
San Bernardino	WVAL6004	810	Cx. quinquefasciatus	Ontario	16	GRVD	5/25/16	WNV
San Joaquin	SJCM7023	404	Cx. pipiens	Stockton	50	CO2	5/24/16	WNV
San Joaquin	SJCM7023	406	Cx. pipiens	Stockton	17	CO2	5/24/16	WNV
Tulare	DLTA8521	489	Cx. quinquefasciatus	Visalia	50	GRVD	5/19/16	WNV

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 RNA preservation 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. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

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, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory 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