

## California Arbovirus Surveillance Bulletin #9

Week 22 Friday, June 2, 2017



### Weekly Update

#### **Humans**

No new cases were reported this week. To date this year, one human case of West Nile Virus (WNV) illness has been reported from Kings County.

#### **Dead Birds**

Three dead birds were reported this week from Kern (1) and Sacramento (2) counties. This is the first positive dead bird reported from Kern County this year. To date this year, eleven birds from six counties have tested positive for West Nile virus (WNV). At this time last year, 74 WNV positive birds had been reported from 6 counties.

#### **Mosquito Pools**

A total of 17 WNV positive mosquito pools were reported this week from the following five counties: Kern (2), Los Angeles (1), Merced (1), Riverside (2), and Tulare (11). **This is the first detection of WNV activity in Kern and Merced counties in 2017.** To date this year, 29 WNV positive mosquito pools have been reported from seven counties. At this time last year, 75 WNV positive mosquito pools had been reported from 11 counties, and 10 SLEV positive mosquitoes pools had been reported from one county.

#### **Sentinel Chickens**

No seroconversions have been reported in 2017.

2016 & 2017 YTD West Nile Virus Comparisons		
	2016	2017
Total # Dead Bird Reports	2,438	2,205
# Positive Counties	13	11
# Human Cases	0	1
# Positive Dead Birds / # Tested	74 / 482	11 / 432
# Positive Mosquito Pools / # Tested	75 / 9,551	29 / 9,776
# Seroconversions / # Tested	0 / 1,672	0 / 2,427

Website Information: For updated information on WNV in California, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.ca.gov), or the California Vectorborne Disease Surveillance System website, [www.calsurv.org](http://www.calsurv.org). For national information on WNV and other arboviruses, please visit the CDC website, [www.cdc.gov](http://www.cdc.gov), and the USGS website, [www.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov)

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YTD WNV Activity by Element and County, 2017				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Kern		1	2	
Kings	1			
Los Angeles		1	3	
Merced			1	
Orange		1		
Riverside			3	
Sacramento		6		
San Bernardino			3	
San Diego		1	1	
San Mateo		1		
Tulare			16	
<b>Totals</b>	<b>1</b>	<b>11</b>	<b>29</b>	<b>0</b>

### TESTING SUMMARIES

#### Humans

		WNV	SLE	WEE
Human Cases	Week	0	0	0
	YTD	1	0	0

#### Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	72	3
	YTD	432	11

#### Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	466	0	0	0
	YTD	2,427	0	0	0

#### Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	17 / 1,194	0 / 1,002	0 / 889	0 / 0	0 / 0	0 / 0
	YTD	29 / 9,776	0 / 9,010	0 / 8,218	0 / 254	0 / 254	0 / 254

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### New Positives

#### Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Kern	Kern MVCD	Bakersfield	93304	American Crow	5/23/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Galt	95632	Western Scrub-Jay	5/26/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Scrub-Jay	5/29/2017	WNV

#### Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Kern	KERN2023	168	Cx. quinquefasciatus	Bakersfield	50	CO2	5/23/2017	WNV
Kern	KERN35	201	Cx. tarsalis	Bakersfield	50	CO2	5/25/2017	WNV
Los Angeles	SGVA32	143	Cx. quinquefasciatus	Arcadia	50	CO2	5/24/2017	WNV
Merced	MERC409	24	Cx. tarsalis	Los Banos	38	CO2	5/30/2017	WNV
Riverside	NWST102	80	Cx. tarsalis	Corona	50	CO2	5/26/2017	WNV
Riverside	NWST26	76	Cx. stigmatosoma	Corona	50	CO2	5/24/2017	WNV
Tulare	DLTA8533	508	Cx. quinquefasciatus	Visalia	11	GRVD	5/26/2017	WNV
Tulare	DLTA8533	529	Cx. quinquefasciatus	Visalia	21	GRVD	5/31/2017	WNV
Tulare	DLTA9503	457	Cx. quinquefasciatus	Visalia	13	GRVD	5/24/2017	WNV
Tulare	DLTA9504	418	Cx. quinquefasciatus	Visalia	50	GRVD	5/18/2017	WNV
Tulare	DLTA9504	480	Cx. quinquefasciatus	Visalia	39	GRVD	5/25/2017	WNV
Tulare	DLTA9505	458	Cx. quinquefasciatus	Visalia	19	GRVD	5/24/2017	WNV
Tulare	DLTA9505	481	Cx. quinquefasciatus	Visalia	27	GRVD	5/25/2017	WNV
Tulare	DLTA9505	482	Cx. quinquefasciatus	Visalia	28	GRVD	5/25/2017	WNV
Tulare	DLTA9505	507	Cx. quinquefasciatus	Visalia	17	GRVD	5/26/2017	WNV
Tulare	DLTA9505	526	Cx. quinquefasciatus	Visalia	40	GRVD	5/31/2017	WNV
Tulare	DLTA9505	527	Cx. quinquefasciatus	Visalia	33	GRVD	5/31/2017	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.

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### **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.

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