

## California Arbovirus Surveillance Bulletin #5

Week 18 Friday, May 5, 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**

No positive dead birds were reported this week. To date this year, three birds from three counties have tested positive for West Nile virus (WNV). At this time last year, 16 WNV positive birds had been reported from four counties.

#### **Mosquito Pools**

Two WNV positive mosquito pools were reported this week from two counties: Los Angeles (1) and Riverside (1). **This is the first detection of WNV activity in Los Angeles and Riverside counties in 2017.** To date this year, two WNV positive mosquito pools have been reported from two counties. At this time last year, two WNV positive mosquito 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	1,456	1,167
# Positive Counties	4	6
# Human Cases	0	1
# Positive Dead Birds / # Tested	16 / 189	3 / 128
# Positive Mosquito Pools / # Tested	2 / 3,457	2 / 5,188
# Seroconversions / # Tested	0 / 229	0 / 683

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YTD WNV Activity by Element and County, 2017				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Kings	1			
Los Angeles			1	
Orange		1		
Riverside			1	
San Diego		1		
San Mateo		1		
<b>Totals</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>0</b>

### TESTING SUMMARIES

#### Humans

		WNV	SLE	WEE
<b>Human Cases</b>	Week	0	0	0
	YTD	1	0	0

#### Dead Birds

		Number Tested	WNV Positive
<b>Dead Birds</b>	Week	12	0
	YTD	128	3

#### Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
<b>Chicken Sera</b>	Week	343	0	0	0
	YTD	683	0	0	0

#### Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
<b>Mosquito Pools</b>	Week	2 / 1,205	0 / 1,139	0 / 993	0 / 33	0 / 33	0 / 33
	YTD	2 / 5,188	0 / 5,022	0 / 4,706	0 / 141	0 / 141	0 / 141

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### New Positives

#### Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Los Angeles	SGVA27	111	Cx. quinquefasciatus	San Dimas	50	GRVD	5/2/2017	WNV
Riverside	COAV402	1539	Cx. quinquefasciatus	Thousand Palms	31	GRVD	4/28/2017	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.

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#### **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.

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#### **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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