

## California Arbovirus Surveillance Bulletin #11

Week 24 Friday, June 14, 2019



### Weekly Update

#### **Humans**

No human infections have been reported in 2019. At this time last year, 4 human cases of West Nile virus (WNV) disease had been reported from 3 counties.

#### **Dead Birds**

Two WNV positive dead birds were reported this week from Orange County. In 2019, a total of 3 WNV positive dead birds have been reported from 2 counties. At this time last year, 21 WNV positive dead birds had been reported from 8 counties.

#### **Mosquito Pools**

##### West Nile virus

A total of 73 WNV positive mosquito pools were reported this week from 4 counties: Fresno (2), Riverside (49), San Joaquin (2), and Tulare (20). **This is the first detection of WNV activity in Fresno and San Joaquin counties this year.** In 2019, 157 WNV positive mosquito pools have been reported from 5 counties. At this time last year, 10 WNV positive mosquito pools had been reported from 6 counties.

##### St. Louis encephalitis virus

No new positives were reported this week. In 2019, 2 mosquito pools from Tulare County have tested positive for St. Louis encephalitis virus (SLEV). At this time last year, 4 SLEV positive mosquito pools had been reported from 2 counties.

#### **Sentinel Chickens**

No seroconversions have been reported in 2019.

2018 & 2019 YTD West Nile Virus Comparisons		
	2018	2019
Total # Dead Bird Reports	2,332	2,093
# Positive Counties	12	6
# Human Cases	4	0
# Positive Dead Birds / # Tested	21 / 519	3 / 570
# Positive Mosquito Pools / # Tested	10 / 9,568	157 / 9,736
# Seroconversions / # Tested	0 / 2,934	0 / 2,330

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YTD WNV Activity by Element and County, 2019				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Fresno			2	
Orange		2	1	
Riverside			128	
San Diego		1		
San Joaquin			2	
Tulare			24	
<b>Totals</b>	<b>0</b>	<b>3</b>	<b>157</b>	<b>0</b>

## TESTING SUMMARIES

### Humans

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

### Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	55	2
	YTD	570	3

### Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	371	0	0	0
	YTD	2,330	0	0	0

### Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	73 / 1,606	0 / 1,380	0 / 1,294	0 / 0	0 / 0	0 / 0
	YTD	157 / 9,736	2 / 8,829	0 / 8,501	0 / 82	0 / 82	0 / 82

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**POSITIVES**

**Dead Birds**

County	Agency	City	Zip Code	Species	Date Reported	Virus
Orange	Orange Co VCD	Tustin	92780	American Crow	5/12/2019	WNV
Orange	Orange Co VCD	Tustin	92780	American Crow	6/7/2019	WNV

**Mosquito pools**

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1173	33	Cx. quinquefasciatus	Fresno	33	GRVD	5/31/19	WNV
Fresno	CNSL1336	34	Cx. quinquefasciatus	Fresno	34	GRVD	5/31/19	WNV
Riverside	COAV0	2845	Cx. quinquefasciatus		31	GRVD	6/7/19	WNV
Riverside	COAV0	2877	Cx. tarsalis		50	CO2	6/7/19	WNV
Riverside	COAV0	2894	Cx. tarsalis		50	CO2	6/7/19	WNV
Riverside	COAV0	2906	Cx. tarsalis		50	CO2	6/7/19	WNV
Riverside	COAV0	2917	Cx. quinquefasciatus		50	GRVD	6/8/19	WNV
Riverside	COAV0	2966	Cx. quinquefasciatus		50	CO2	6/11/19	WNV
Riverside	COAV0	2969	Cx. quinquefasciatus		22	CO2	6/11/19	WNV
Riverside	COAV0	3126	Cx. quinquefasciatus		17	GRVD	6/13/19	WNV
Riverside	COAV0	3134	Cx. quinquefasciatus		19	GRVD	6/13/19	WNV
Riverside	COAV0	3135	Cx. quinquefasciatus		50	GRVD	6/13/19	WNV
Riverside	COAV0	3136	Cx. quinquefasciatus		50	GRVD	6/13/19	WNV
Riverside	COAV0	3137	Cx. quinquefasciatus		39	GRVD	6/13/19	WNV
Riverside	COAV0	3149	Cx. quinquefasciatus		45	GRVD	6/13/19	WNV
Riverside	COAV121	2994	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV121	2995	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV121	2996	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV121	2997	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV122	3012	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV122	3013	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV123	3015	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV123	3018	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV208	3057	Cx. quinquefasciatus	Palm Springs	50	CO2	6/12/19	WNV
Riverside	COAV208	3058	Cx. quinquefasciatus	Palm Springs	50	CO2	6/12/19	WNV
Riverside	COAV208	3059	Cx. quinquefasciatus	Palm Springs	47	CO2	6/12/19	WNV
Riverside	COAV321	3104	Cx. quinquefasciatus	Rancho Mirage	50	GRVD	6/13/19	WNV
Riverside	COAV40	3033	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV412	3107	Cx. quinquefasciatus	Rancho Mirage	50	GRVD	6/13/19	WNV
Riverside	COAV419	2934	Cx. quinquefasciatus	La Quinta	50	GRVD	6/11/19	WNV
Riverside	COAV419	3133	Cx. quinquefasciatus	La Quinta	50	CO2	6/13/19	WNV
Riverside	COAV423	2937	Cx. quinquefasciatus	Indio	47	GRVD	6/11/19	WNV
Riverside	COAV424	2939	Cx. quinquefasciatus	Coachella	49	GRVD	6/11/19	WNV
Riverside	COAV428	2849	Cx. quinquefasciatus	Indio	22	CO2	6/7/19	WNV
Riverside	COAV43	2942	Cx. tarsalis	Mecca	28	CO2	6/11/19	WNV
Riverside	COAV430	2986	Cx. quinquefasciatus	Indio	50	GRVD	6/11/19	WNV
Riverside	COAV430	2987	Cx. quinquefasciatus	Indio	50	GRVD	6/11/19	WNV
Riverside	COAV430	3146	Cx. quinquefasciatus	Indio	50	GRVD	6/13/19	WNV
Riverside	COAV45	3001	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV46	3019	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV

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Riverside	COAV46	3022	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV48	3039	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV48	3040	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV51	3046	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV533	3052	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV55	2948	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV55	2951	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV57	3030	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV608	2991	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV611	3007	Cx. tarsalis	Mecca	50	CO2	6/11/19	WNV
Riverside	COAV753	2885	Cx. tarsalis	Mecca	7	BGSENT	6/7/19	WNV
San Joaquin	SJCM8083	308	Cx. pipiens	Escalon	12	CO2	6/11/19	WNV
San Joaquin	SJCM8100	290	Cx. tarsalis	Tracy	49	CO2	6/11/19	WNV
Tulare	DLTA8426	821	Cx. quinquefasciatus	Visalia	10	GRVD	6/11/19	WNV
Tulare	DLTA8426	880	Cx. quinquefasciatus	Visalia	24	GRVD	6/12/19	WNV
Tulare	DLTA8426	970	Cx. quinquefasciatus	Visalia	30	GRVD	6/13/19	WNV
Tulare	DLTA8435	859	Cx. quinquefasciatus	Visalia	50	GRVD	6/12/19	WNV
Tulare	DLTA8435	860	Cx. quinquefasciatus	Visalia	41	GRVD	6/12/19	WNV
Tulare	DLTA8435	941	Cx. quinquefasciatus	Visalia	50	GRVD	6/13/19	WNV
Tulare	DLTA8436	864	Cx. quinquefasciatus	Visalia	50	GRVD	6/12/19	WNV
Tulare	DLTA8436	865	Cx. quinquefasciatus	Visalia	14	GRVD	6/12/19	WNV
Tulare	DLTA9401	665	Cx. quinquefasciatus	Visalia	40	BGSENT	6/6/19	WNV
Tulare	DLTA9401	786	Cx. quinquefasciatus	Visalia	34	GRVD	6/11/19	WNV
Tulare	DLTA9401	866	Cx. quinquefasciatus	Visalia	45	GRVD	6/12/19	WNV
Tulare	DLTA9401	878	Cx. quinquefasciatus	Visalia	40	GRVD	6/12/19	WNV
Tulare	DLTA9401	879	Cx. quinquefasciatus	Visalia	11	GRVD	6/12/19	WNV
Tulare	DLTA9401	948	Cx. tarsalis	Visalia	37	BGSENT	6/13/19	WNV
Tulare	DLTA9402	818	Cx. quinquefasciatus	Visalia	18	GRVD	6/11/19	WNV
Tulare	DLTA9402	928	Cx. quinquefasciatus	Visalia	50	GRVD	6/13/19	WNV
Tulare	DLTA9402	929	Cx. quinquefasciatus	Visalia	13	GRVD	6/13/19	WNV
Tulare	DLTA9403	888	Cx. quinquefasciatus	Visalia	41	GRVD	6/12/19	WNV
Tulare	DLTA9412	805	Cx. quinquefasciatus	Visalia	29	GRVD	6/11/19	WNV
Tulare	DLTA9412	949	Cx. quinquefasciatus	Visalia	42	GRVD	6/13/19	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 with a plaque reduction neutralization test (PRNT).

**Dead Birds**

Oral swab samples collected from bird carcasses are tested at the UC Davis Arbovirus Research and Training laboratory (DART) or at a local agency for West Nile virus by RT-qPCR.

**Sentinel Chickens:**

Dried blood spot samples from sentinel chickens are tested at the California Department of Public Health Vector-Borne Disease Laboratory for IgG antibodies to West Nile, St. Louis encephalitis, and western equine encephalomyelitis viruses by an EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

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### **Mosquito Pools:**

Mosquito pools are tested at DART or at a local agency for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex RT-qPCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-qPCR.

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