

## California Arbovirus Surveillance Bulletin #12

Week 25 Friday, June 21, 2019



### Weekly Update

#### **Humans**

No human infections have been reported in 2019. At this time last year, 9 human cases of West Nile virus (WNV) disease had been reported from 6 counties.

#### **Dead Birds**

Two WNV positive dead birds were reported this week from San Joaquin County. **These are the first WNV positive dead birds reported from San Joaquin County this year.** In 2019, a total of 5 WNV positive dead birds have been reported from 3 counties. At this time last year, 27 WNV positive dead birds had been reported from 10 counties.

#### **Mosquito Pools**

##### West Nile virus

A total of 63 WNV positive mosquito pools were reported this week from 6 counties: Fresno (7), Kern (1), Riverside (49), San Bernardino (1), San Joaquin (3), and Tulare (2). **This is the first detection of WNV activity in Kern and San Bernardino counties this year.** In 2019, a total of 220 WNV positive mosquito pools have been reported from 7 counties. At this time last year, 31 WNV positive mosquito pools had been reported from 7 counties.

##### St. Louis encephalitis virus

A total of 6 mosquito pools were reported positive this week for St. Louis encephalitis virus (SLEV) from 3 counties: Fresno (4), Riverside (1), and Tulare (1). **This is the first detection of SLEV activity in Fresno and Riverside counties this year.** In 2019, 8 SLEV positive mosquito pools have been reported from 3 counties: Fresno (4), Riverside (1), and Tulare (3). At this time last year, 11 SLEV positive mosquito pools had been reported from 3 counties.

#### **Sentinel Chickens**

No seroconversions have been reported in 2019.

2018 & 2019 YTD West Nile Virus Comparisons		
	2018	2019
Total # Dead Bird Reports	2,591	2,289
# Positive Counties	15	8
# Human Cases	9	0
# Positive Dead Birds / # Tested	27 / 614	5 / 633
# Positive Mosquito Pools / # Tested	31 / 11,302	220 / 11,423
# Seroconversions / # Tested	0 / 3,260	0 / 2,716

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YTD WNV Activity by Element and County, 2019				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Fresno			9	
Kern			1	
Orange		2	1	
Riverside			177	
San Bernardino			1	
San Diego		1		
San Joaquin		2	5	
Tulare			26	
<b>Totals</b>	<b>0</b>	<b>5</b>	<b>220</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	57	2
	YTD	633	5

#### Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	386	0	0	0
	YTD	2,716	0	0	0

#### Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	63 / 1,737	6 / 1,695	0 / 1,548	0 / 49	0 / 49	0 / 49
	YTD	220 / 11,473	8 / 10,524	0 / 10,049	0 / 131	0 / 131	0 / 131

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**POSITIVES**

**Dead Birds**

County	Agency	City	Zip Code	Species	Date Reported	Virus
San Joaquin	San Joaquin Co MVCD	Manteca	95336	American Crow	6/18/2019	WNV
San Joaquin	San Joaquin Co MVCD	Manteca	95336	American Crow	6/19/2019	WNV

**Mosquito pools**

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1062	65	Cx. quinquefasciatus	Fresno	45	GRVD	6/12/19	WNV
Fresno	CNSL1068	66	Cx. quinquefasciatus	Fresno	50	GRVD	6/12/19	WNV
Fresno	CNSL1200	80	Cx. quinquefasciatus	Fresno	50	GRVD	6/13/19	SLEV
Fresno	CNSL1581	81	Cx. quinquefasciatus	Fresno	50	GRVD	6/13/19	WNV
Fresno	FRNO111	196	Cx. quinquefasciatus		28	BGSENT	6/20/19	SLEV
Fresno	FRNO111	196	Cx. quinquefasciatus		28	BGSENT	6/20/19	WNV
Fresno	FRNO165	158	Cx. quinquefasciatus		29	GRVD	6/18/19	WNV
Fresno	FRNO229	173	Cx. quinquefasciatus	Fresno	46	GRVD	6/19/19	WNV
Fresno	FRNO35	185	Cx. quinquefasciatus	Fresno	50	GRVD	6/20/19	WNV
Fresno	FRNO61	193	Cx. quinquefasciatus	Fresno	50	BGSENT	6/20/19	SLEV
Fresno	FRNO61	194	Cx. tarsalis	Fresno	10	BGSENT	6/20/19	SLEV
Kern	KERN2005	229	Cx. quinquefasciatus	Bakersfield	50	GRVD	6/14/19	WNV
Riverside	COAV0	3152	Cx. quinquefasciatus		25	CO2	6/15/19	WNV
Riverside	COAV0	3158	Cx. quinquefasciatus		16	GRVD	6/18/19	WNV
Riverside	COAV0	3185	Cx. quinquefasciatus		50	CO2	6/18/19	WNV
Riverside	COAV0	3194	Cx. quinquefasciatus		21	GRVD	6/18/19	WNV
Riverside	COAV0	3257	Cx. quinquefasciatus		50	GRVD	6/18/19	WNV
Riverside	COAV0	3258	Cx. quinquefasciatus		29	CO2	6/18/19	WNV
Riverside	COAV0	3260	Cx. quinquefasciatus		39	GRVD	6/18/19	WNV
Riverside	COAV0	3360	Cx. quinquefasciatus		50	GRVD	6/19/19	WNV
Riverside	COAV10	3291	Cx. tarsalis	Thermal	50	CO2	6/18/19	WNV
Riverside	COAV10	3293	Cx. tarsalis	Thermal	50	CO2	6/18/19	WNV
Riverside	COAV10	3302	Cx. quinquefasciatus	Thermal	50	CO2	6/18/19	WNV
Riverside	COAV121	3176	Cx. tarsalis	Mecca	50	CO2	6/14/19	WNV
Riverside	COAV121	3178	Cx. tarsalis	Mecca	50	CO2	6/14/19	WNV
Riverside	COAV130	3280	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV130	3281	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV130	3282	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV130	3283	Cx. tarsalis	Mecca	26	CO2	6/18/19	WNV
Riverside	COAV131	3277	Cx. tarsalis	Oasis	50	CO2	6/18/19	SLEV
Riverside	COAV131	3278	Cx. tarsalis	Oasis	50	CO2	6/18/19	WNV
Riverside	COAV132	3224	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV132	3225	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV132	3226	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV200	3170	Cx. quinquefasciatus	Mecca	46	BGSENT	6/14/19	WNV
Riverside	COAV208	3251	Cx. quinquefasciatus	Palm Springs	50	CO2	6/18/19	WNV
Riverside	COAV208	3252	Cx. quinquefasciatus	Palm Springs	50	CO2	6/18/19	WNV
Riverside	COAV208	3322	Cx. quinquefasciatus	Palm Springs	50	GRVD	6/19/19	WNV
Riverside	COAV302	3350	Cx. quinquefasciatus	Rancho Mirage	43	GRVD	6/20/19	WNV
Riverside	COAV33	3233	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV

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Riverside	COAV34	3208	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV35	3221	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV35	3222	Cx. tarsalis	Mecca	34	CO2	6/18/19	WNV
Riverside	COAV37	3211	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV37	3212	Cx. quinquefasciatus	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV401	3159	Cx. quinquefasciatus	Palm Desert	45	GRVD	6/18/19	WNV
Riverside	COAV412	3375	Cx. quinquefasciatus	Rancho Mirage	36	GRVD	6/20/19	WNV
Riverside	COAV419	3253	Cx. quinquefasciatus	La Quinta	50	GRVD	6/18/19	WNV
Riverside	COAV419	3254	Cx. quinquefasciatus	La Quinta	22	GRVD	6/18/19	WNV
Riverside	COAV420	3201	Cx. quinquefasciatus	La Quinta	50	GRVD	6/18/19	WNV
Riverside	COAV421	3261	Cx. quinquefasciatus	Indio	48	GRVD	6/18/19	WNV
Riverside	COAV423	3241	Cx. quinquefasciatus	Indio	50	GRVD	6/18/19	WNV
Riverside	COAV427	3329	Cx. quinquefasciatus	Palm Desert	45	BGSENT	6/20/19	WNV
Riverside	COAV428	3199	Cx. quinquefasciatus	Indio	50	GRVD	6/18/19	WNV
Riverside	COAV430	3244	Cx. quinquefasciatus	Indio	50	GRVD	6/18/19	WNV
Riverside	COAV431	3313	Cx. quinquefasciatus	Palm Springs	50	GRVD	6/19/19	WNV
Riverside	COAV431	3314	Cx. quinquefasciatus	Palm Springs	50	GRVD	6/19/19	WNV
Riverside	COAV431	3315	Cx. quinquefasciatus	Palm Springs	38	CO2	6/19/19	WNV
Riverside	COAV541	3264	Cx. quinquefasciatus	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV541	3265	Cx. quinquefasciatus	Mecca	43	CO2	6/18/19	WNV
Riverside	COAV6	3295	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
Riverside	COAV68	3219	Cx. tarsalis	Mecca	50	CO2	6/18/19	WNV
San Bernardino	SANB3	420	Cx. stigmatosoma	Colton	32	CO2	6/19/19	WNV
San Joaquin	SJCM8000	437	Cx. pipiens	Manteca	32	CO2	6/18/19	WNV
San Joaquin	SJCM8161	423	Cx. pipiens	Ripon	50	CO2	6/18/19	WNV
San Joaquin	SJCM8191	455	Cx. tarsalis	Lodi	34	CO2	6/18/19	WNV
Tulare	DLTA9403	993	Cx. quinquefasciatus	Visalia	37	GRVD	6/14/19	WNV
Tulare	DLTA9505	1014	Cx. quinquefasciatus	Visalia	10	BGSENT	6/14/19	SLEV
Tulare	DLTA9506	990	Cx. quinquefasciatus	Visalia	35	GRVD	6/14/19	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.

**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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*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 websites: [www.cdc.gov](http://www.cdc.gov) and [https://wwwn.cdc.gov/arbonet/maps/ADB\\_Diseases\\_Map/index.html](https://wwwn.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html).*

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