

California Arbovirus Surveillance Bulletin #14

Week 27 Friday, July 8, 2022



Weekly Update

Humans

No human infections have been reported in 2022. At this time last year, the first West Nile virus (WNV) human case and the first asymptomatic WNV human infection had been reported.

Dead Birds

A total of 6 WNV positive dead birds were reported this week from 4 counties: Fresno (2), Los Angeles (1), Sacramento (1), Solano (1), and Sutter (1). **These are the first positive dead birds from Fresno, Solano, and Sutter counties this year.** In 2022, 20 WNV positive dead birds have been reported from 9 counties. At this time last year, 45 WNV positive dead birds had been reported from 6 counties.

Mosquito Pools

West Nile virus

A total of 84 WNV positive mosquito pools were reported this week from 10 counties: Fresno (12), Kern (5), Kings (4), Los Angeles (11), Riverside (6), Sacramento (1), San Bernardino (2), San Joaquin (11), Shasta (2), and Tulare (30). **These are the first detections of WNV activity in San Bernardino and Shasta Counties this year.** In 2022, 222 WNV positive mosquito pools have been reported from 17 counties. At this time last year, 177 WNV positive mosquito pools from 13 counties had been reported.

St. Louis encephalitis virus

No St. Louis encephalitis virus (SLEV) positive mosquito pools were reported this week. In 2022, two positive mosquito pools from Imperial (1) and Kings (1) Counties have been reported. At this time last year, no SLEV positive mosquito pools had been reported.

Sentinel Chickens

No seroconversions have been reported in 2022.

2021 & 2022 YTD West Nile Virus Comparisons		
	2021	2022
Total No. Dead Bird Reports	2,933	2,480
No. Positive Counties	15	20
No. Human Cases	1	0
No. Positive Dead Birds / No. Tested	45 / 846	20 / 611
No. Positive Mosquito Pools / No. Tested	177 / 13,234	222 / 12,548
No. Seroconversions / No. Tested	0 / 2,309	0 / 1,838

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YTD WNV Activity by Element and County, 2022					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Contra Costa			1		
Fresno			2	60	
Kern				32	
Kings				12	
Los Angeles			6	21	
Madera				1	
Merced			1	1	
Nevada			1		
Orange				3	
Placer				3	
Riverside				12	
Sacramento			6	4	
San Bernardino				2	
San Joaquin				21	
Santa Clara				1	
Shasta				2	
Solano			1	1	
Sutter			1	1	
Tulare				45	
Yolo			1		
Totals	0	0	20	222	0

TESTING SUMMARIES

Humans

		WNV	SLEV	WEEV
Human Cases	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	44	6
	YTD	611	20

Sentinel Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	253	0	0	0
	YTD	1,838	0	0	0

Mosquito Pools

		Positive / Total Tested					
Mosquito Pools	Week	WNV	SLEV	WEEV	CHIK	DENV	ZIKA
		84 / 1,013	0 / 996	0 / 996	0 / 0	0 / 0	0 / 0
		YTD	222 / 12,548	2 / 12,287	0 / 12,252	0 / 212	0 / 212

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POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Fresno	Fresno MVCD	Fresno	93706	American Crow	7/6/2022	WNV
Fresno	Fresno MVCD	Fresno	93772	Finch	6/29/2022	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Northridge	91324	American Crow	7/1/2022	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	California Scrub-Jay	6/29/2022	WNV
Solano	Solano Co MAD	Vacaville	95688	California Scrub-Jay	6/30/2022	WNV
Sutter	Sutter-Yuba MVCD	Yuba City	95993	California Scrub-Jay	7/3/2022	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1068	545	Cx quinquefasciatus	Fresno	26	GRVD	6/29/2022	WNV
Fresno	CNSL1529	538	Cx quinquefasciatus	Fresno	25	GRVD	6/28/2022	WNV
Fresno	CNSL1762	543	Cx quinquefasciatus	Fresno	15	GRVD	6/28/2022	WNV
Fresno	CNSL2266	41	Cx quinquefasciatus	Sanger	43	GRVD	7/1/2022	WNV
Fresno	CNSL3238	548	Cx quinquefasciatus	Reedley	37	GRVD	7/1/2022	WNV
Fresno	CNSL8047	546	Cx quinquefasciatus	Fresno	12	GRVD	6/30/2022	WNV
Fresno	FRNO116	445	Cx quinquefasciatus	Fresno	39	GRVD	6/29/2022	WNV
Fresno	FRNO14	428	Cx quinquefasciatus	Fresno	29	GRVD	6/29/2022	WNV
Fresno	FRNO238	444	Cx quinquefasciatus	Fresno	10	GRVD	6/29/2022	WNV
Fresno	FRNO96	441	Cx quinquefasciatus	Fresno	50	GRVD	6/29/2022	WNV
Fresno	FRNO96	442	Cx quinquefasciatus	Fresno	12	GRVD	6/29/2022	WNV
Fresno	FRWS4102	155	Cx tarsalis	Kerman	50	CO2	7/6/2022	WNV
Kern	KERN2023	339	Cx tarsalis	Bakersfield	30	CO2	6/28/2022	WNV
Kern	KERN28	344	Cx quinquefasciatus	Bakersfield	28	CO2	6/30/2022	WNV
Kern	KERN3004	349	Cx quinquefasciatus	Bakersfield	50	CO2	7/1/2022	WNV
Kern	KERN3014	343	Cx tarsalis	Bakersfield	45	CO2	6/30/2022	WNV
Kern	KERN3039	346	Cx tarsalis	Bakersfield	42	CO2	6/30/2022	WNV
Kings	KNGS3099	50	Cx tarsalis	Hanford	50	CO2	6/29/2022	WNV
Kings	KNGS3102	48	Cx tarsalis	Armona	50	CO2	6/28/2022	WNV
Kings	KNGS3102	49	Cx tarsalis	Armona	50	CO2	6/28/2022	WNV
Kings	KNGS8033	59	Cx tarsalis	Hanford	50	CO2	6/30/2022	WNV
Los Angeles	GRLA2031	5507	Cx quinquefasciatus	Northridge	22	GRVD	6/30/2022	WNV
Los Angeles	GRLA2032	5506	Cx quinquefasciatus	Northridge	50	GRVD	6/30/2022	WNV
Los Angeles	GRLA2383	452	Cx quinquefasciatus	Whittier	50	GRVD	6/30/2022	WNV
Los Angeles	GRLA2414	5486	Cx quinquefasciatus	Granada Hills	50	GRVD	6/28/2022	WNV
Los Angeles	GRLA2419	5484	Cx quinquefasciatus	Panorama City	50	GRVD	6/28/2022	WNV
Los Angeles	GRLA2421	5485	Cx quinquefasciatus	Panorama City	48	GRVD	6/28/2022	WNV
Los Angeles	GRLA2635	5501	Cx quinquefasciatus	Lake Balboa	50	GRVD	6/30/2022	WNV
Los Angeles	GRLA3045	453	Cx quinquefasciatus	Whittier	45	GRVD	6/30/2022	WNV
Los Angeles	GRLA3053	455	Cx quinquefasciatus	Hacienda Heights	50	GRVD	6/30/2022	WNV
Los Angeles	SGVA5	633	Cx quinquefasciatus	Irwindale	24	GRVD	7/6/2022	WNV
Los Angeles	SGVA898	640	Cx quinquefasciatus	San Gabriel	50	GRVD	7/6/2022	WNV
Riverside	COAV130	3552	Cx tarsalis	Oasis	50	CO2	7/6/2022	WNV
Riverside	COAV27	3561	Cx tarsalis	Thermal	50	CO2	7/6/2022	WNV

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Riverside	COAV27	3563	Cx tarsalis	Thermal	50	CO2	7/6/2022	WNV
Riverside	COAV30	3513	Cx tarsalis	Thermal	38	CO2	7/6/2022	WNV
Riverside	COAV33	3556	Cx tarsalis	Thermal	50	CO2	7/6/2022	WNV
Riverside	COAV37	3511	Cx tarsalis	Mecca	32	CO2	7/6/2022	WNV
Sacramento	SAYO213002	2009	Cx tarsalis	Sacramento	15	CO2	7/6/2022	WNV
San Bernardino	WVAL4568	847	Cx quinquefasciatus	Upland	20	GRVD	6/29/2022	WNV
San Bernardino	WVAL5046	795	Cx quinquefasciatus	Rancho Cucamonga	50	BGSENT	6/24/2022	WNV
San Joaquin	SJCM8018	769	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	770	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	771	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	772	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	773	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	774	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	775	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	776	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	777	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8018	778	Cx tarsalis	Stockton	100	CO2	7/6/2022	WNV
San Joaquin	SJCM8106	833	Cx tarsalis	Escalon	7	CO2	7/6/2022	WNV
Shasta	SHAS148	108	Cx tarsalis	Cottonwood	40	CO2	7/6/2022	WNV
Shasta	SHAS349	59	Cx pipiens	Redding	13	CO2	6/28/2022	WNV
Tulare	DLTA64073	1252	Cx quinquefasciatus	Dinuba	23	BGSENT	6/30/2022	WNV
Tulare	DLTA64073	1257	Cx quinquefasciatus	Dinuba	21	GRVD	6/30/2022	WNV
Tulare	DLTA64073	1332	Cx quinquefasciatus	Dinuba	13	GRVD	7/7/2022	WNV
Tulare	DLTA6408	1248	Cx quinquefasciatus	Dinuba	19	BGSENT	6/30/2022	WNV
Tulare	DLTA6408	1321	Cx quinquefasciatus	Dinuba	13	GRVD	7/7/2022	WNV
Tulare	DLTA6417	1310	Cx quinquefasciatus	Dinuba	29	GRVD	7/6/2022	WNV
Tulare	DLTA6417	1333	Cx quinquefasciatus	Dinuba	26	GRVD	7/7/2022	WNV
Tulare	DLTA8413	1301	Cx quinquefasciatus	Visalia	50	BGSENT	7/6/2022	WNV
Tulare	DLTA841543	1226	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1230	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1231	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1232	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1236	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1237	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1239	Cx quinquefasciatus	Visalia	50	CO2	6/30/2022	WNV
Tulare	DLTA841543	1241	Cx quinquefasciatus	Visalia	40	CO2	6/30/2022	WNV
Tulare	DLTA842113	1314	Cx quinquefasciatus	Visalia	46	CO2	7/7/2022	WNV
Tulare	DLTA84223	1215	Cx quinquefasciatus	Visalia	50	BGSENT	6/30/2022	WNV
Tulare	DLTA84223	1216	Cx quinquefasciatus	Visalia	39	BGSENT	6/30/2022	WNV
Tulare	DLTA8423	1246	Cx quinquefasciatus	Visalia	50	BGSENT	6/30/2022	WNV
Tulare	DLTA8423	1247	Cx quinquefasciatus	Visalia	47	BGSENT	6/30/2022	WNV
Tulare	DLTA8423	1320	Cx quinquefasciatus	Visalia	13	GRVD	7/7/2022	WNV
Tulare	DLTA84352	1286	Cx quinquefasciatus	Visalia	20	BGSENT	7/6/2022	WNV
Tulare	DLTA8520	1293	Cx quinquefasciatus	Visalia	20	BGSENT	7/6/2022	WNV
Tulare	DLTA8527	1348	Cx quinquefasciatus	Visalia	17	GRVD	7/7/2022	WNV
Tulare	DLTA8529	1296	Cx quinquefasciatus	Visalia	22	GRVD	7/6/2022	WNV
Tulare	DLTA8533	1353	Cx quinquefasciatus	Visalia	12	GRVD	7/7/2022	WNV
Tulare	DLTA9504	1354	Cx quinquefasciatus	Visalia	19	GRVD	7/7/2022	WNV
Tulare	DLTA9505	1352	Cx quinquefasciatus	Visalia	15	GRVD	7/7/2022	WNV
Tulare	DLTA9506	1311	Cx quinquefasciatus	Visalia	15	GRVD	7/6/2022	WNV

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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.

Website Information: For updated information on WNV in California, please visit the California WNV website, <https://westnile.ca.gov>, or the California Vector-Borne Disease Surveillance System website, <https://maps.vectorsurv.org>.

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