

California Arbovirus Surveillance Bulletin #13

Week 26 Friday, July 1, 2022



Weekly Update

Humans

No human infections have been reported in 2022.

Dead Birds

A total of 2 West Nile virus (WNV) positive dead birds were reported this week from 2 counties: Sacramento (1) and Merced (1). To date this year, 14 WNV positive dead birds have been reported from 6 counties. At this time last year, 35 WNV positive dead birds had been reported from 5 counties.

Mosquito Pools

West Nile virus

A total of 51 WNV positive mosquito pools were reported this week from 13 counties: Fresno (13), Kern (3), Kings (8), Los Angeles (7), Madera (1), Orange (1), Placer (1), Riverside (2), Sacramento (2), San Joaquin (4), Santa Clara (1), Solano (1), and Tulare (7). **This is the first detection of WNV activity in Kings, Madera, Santa Clara, and Solano counties this year.** In 2022, 138 WNV positive mosquito pools have been reported from 15 counties. At this time last year, 115 WNV positive mosquito pools from 13 counties had been reported.

St. Louis encephalitis virus

Two St. Louis encephalitis virus (SLEV) positive mosquito pools were reported this week from Imperial (1) and Kings (1) counties. **This is the first detection of SLEV activity in California this year.** 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	2,826	2,390
No. Positive Counties	14	18
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	35 / 814	14 / 567
No. Positive Mosquito Pools / No. Tested	115 / 11,905	138 / 11,535
No. Seroconversions / No. Tested	0 / 2,154	0 / 1,585

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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				48	
Kern				27	
Kings				8	
Los Angeles			5	10	
Madera				1	
Merced			1	1	
Nevada			1		
Orange				3	
Placer				3	
Riverside				6	
Sacramento			5	3	
San Joaquin				10	
Santa Clara				1	
Solano				1	
Sutter				1	
Tulare				15	
Yolo			1		
Totals	0	0	14	138	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	35	2
	YTD	567	14

Sentinel Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	162	0	0	0
	YTD	1,585	0	0	0

Mosquito Pools

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	51 / 1,373	2 / 1,234	0 / 1,233	0 / 0	0 / 0	0 / 0
	YTD	138 / 11,535	2 / 11,291	0 / 11,256	0 / 212	0 / 212	0 / 212

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POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Merced	Merced Co MAD	Merced	95340	Hawk	6/26/2022	WNV
Sacramento	Sacramento - Yolo MVCD	Sacramento	95821	American Crow	6/28/2022	WNV

Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1072	532	Culex quinquefasciatus	Fresno	50	GRVD	6/24/2022	WNV
Fresno	CNSL1119	534	Culex quinquefasciatus	Fresno	50	GRVD	6/24/2022	WNV
Fresno	FRNO10	423	Culex tarsalis	Fresno	50	CO2	6/28/2022	WNV
Fresno	FRNO156	399	Culex quinquefasciatus	Fresno	50	GRVD	6/23/2022	WNV
Fresno	FRNO156	400	Culex quinquefasciatus	Fresno	50	GRVD	6/23/2022	WNV
Fresno	FRNO259	404	Culex quinquefasciatus	Fresno	50	GRVD	6/23/2022	WNV
Fresno	FRNO259	405	Culex quinquefasciatus	Fresno	50	GRVD	6/23/2022	WNV
Fresno	FRNO273	421	Culex quinquefasciatus	Fresno	50	GRVD	6/28/2022	WNV
Fresno	FRNO31	422	Culex quinquefasciatus	Fresno	50	GRVD	6/28/2022	WNV
Fresno	FRNO35	394	Culex quinquefasciatus	Fresno	50	GRVD	6/23/2022	WNV
Fresno	FRNO35	395	Culex quinquefasciatus	Fresno	50	GRVD	6/23/2022	WNV
Fresno	FRNO64	397	Culex quinquefasciatus	Fresno	21	GRVD	6/23/2022	WNV
Fresno	FRWS5110	138	Culex tarsalis	Tranquillity	50	CO2	6/28/2022	WNV
Imperial	IMPR102	74	Culex quinquefasciatus	Winterhaven	9	BGSENT	6/22/2022	SLEV
Kern	KERN2030	323	Culex quinquefasciatus	Bakersfield	50	GRVD	6/23/2022	WNV
Kern	KERN2051	329	Culex quinquefasciatus	Bakersfield	36	GRVD	6/24/2022	WNV
Kern	KERN3001	327	Culex quinquefasciatus	Bakersfield	30	CO2	6/23/2022	WNV
Kings	KNGS3028	5	Culex tarsalis	Hanford	50	CO2	6/21/2022	WNV
Kings	KNGS3028	6	Culex tarsalis	Hanford	50	CO2	6/21/2022	WNV
Kings	KNGS3028	7	Culex tarsalis	Hanford	44	CO2	6/21/2022	WNV
Kings	KNGS3028	8	Culex pipiens	Hanford	16	CO2	6/21/2022	WNV
Kings	KNGS3072	40	Culex tarsalis	Hanford	50	CO2	6/24/2022	WNV
Kings	KNGS3072	44	Culex tarsalis	Hanford	50	CO2	6/24/2022	WNV
Kings	KNGS3072	46	Culex erythrothorax	Hanford	20	CO2	6/24/2022	WNV
Kings	KNGS3122	4	Culex tarsalis	Hanford	45	CO2	6/21/2022	SLEV
Kings	KNGS3127	15	Culex tarsalis	Corcoran	50	CO2	6/22/2022	WNV
Los Angeles	GRLA2592	5458	Culex quinquefasciatus	San Marino	50	GRVD	6/23/2022	WNV
Los Angeles	GRLA2593	5459	Culex quinquefasciatus	San Marino	50	GRVD	6/23/2022	WNV
Los Angeles	SGVA291	620	Culex quinquefasciatus	El Monte	22	GRVD	6/29/2022	WNV
Los Angeles	SGVA4	589	Culex quinquefasciatus	Arcadia	50	GRVD	6/21/2022	WNV

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Los Angeles	SGVA491	585	Culex quinquefasciatus	El Monte	50	GRVD	6/21/2022	WNV
Los Angeles	SGVA898	616	Culex quinquefasciatus	San Gabriel	50	GRVD	6/29/2022	WNV
Los Angeles	SGVA996	622	Culex quinquefasciatus	South Pasadena	50	GRVD	6/29/2022	WNV
Madera	MADR3334	156	Culex quinquefasciatus	Madera	50	CO2	6/23/2022	WNV
Orange	ORCO326	1663	Culex quinquefasciatus	La Habra	20	GRVD	6/28/2022	WNV
Placer	PLCR197802	574	Culex tarsalis	Elverta	50	CO2	6/28/2022	WNV
Riverside	COAV48	3333	Culex tarsalis	Mecca	50	CO2	6/28/2022	WNV
Riverside	COAV48	3538	Culex tarsalis	Mecca	50	CO2	6/30/2022	WNV
Sacramento	SAYO214008	1665	Culex pipiens	Carmichael	20	CO2	6/24/2022	WNV
Sacramento	SAYO214008	1666	Culex pipiens	Carmichael	33	GRVD	6/24/2022	WNV
San Joaquin	SJCM8018	705	Culex tarsalis	Stockton	100	CO2	6/28/2022	WNV
San Joaquin	SJCM8018	712	Culex tarsalis	Stockton	100	CO2	6/28/2022	WNV
San Joaquin	SJCM8204	649	Culex tarsalis	Stockton	50	CO2	6/28/2022	WNV
San Joaquin	SJCM8204	653	Culex tarsalis	Stockton	50	CO2	6/28/2022	WNV
Santa Clara	STCL31810	1555	Culex pipiens	Sunnyvale	2	GRVD	6/29/2022	WNV
Solano	SOLA143	101	Culex tarsalis	Elmira	33	CO2	6/28/2022	WNV
Tulare	DLTA64071	1140	Culex stigmatosoma	Dinuba	11	BGSENT	6/28/2022	WNV
Tulare	DLTA741632	1176	Culex quinquefasciatus	Monson	50	CO2	6/29/2022	WNV
Tulare	DLTA84242	1199	Culex quinquefasciatus	Visalia	35	BGSENT	6/29/2022	WNV
Tulare	DLTA8508	1056	Culex quinquefasciatus	Visalia	44	BGSENT	6/23/2022	WNV
Tulare	DLTA8527	1058	Culex quinquefasciatus	Visalia	28	GRVD	6/23/2022	WNV
Tulare	DLTA94023	1047	Culex quinquefasciatus	Visalia	11	GRVD	6/23/2022	WNV
Tulare	DLTA95063	1060	Culex quinquefasciatus	Visalia	24	BGSENT	6/23/2022	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>.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Hannah Romo: Hannah.romo@cdph.ca.gov