

Weekly Update

Humans

One fatal human case of West Nile virus (WNV) illness was reported this week from San Luis Obispo County; this is the first WNV case reported in California in 2021. In addition, one asymptomatic WNV infection was reported this week from Kern County. At this time last year, one WNV case and one asymptomatic infection of WNV had been reported from one county.

Dead Birds

A total of 10 WNV positive dead birds were reported this week from 4 counties: Placer (1), Sacramento (8), and San Joaquin (1). This is the first WNV positive dead bird reported from Placer County this year. In 2021, 45 WNV positive dead birds have been reported from 6 counties. At this time last year, 23 WNV positive dead birds had been reported from 8 counties.

Mosquito Pools

A total of 62 WNV positive mosquito pools were reported this week from 10 counties: Butte (3), Fresno (28), Kern (3), Los Angeles (5), Madera (3), Placer (1), Sacramento (3), San Joaquin (8), Stanislaus (2), and Tulare (6). In 2021, 177 WNV positive mosquito pools have been reported from 13 counties. At this time last year, 135 WNV positive mosquito pools had been reported from 14 counties.

Sentinel Chickens

No seroconversions have been reported in 2021.

2020 & 2021 YTD West Nile Virus Comparisons		
	2020	2021
Total # Dead Bird Reports	2,348	2,933
# Positive Counties	16	15
# Human Cases	1	1
# Positive Dead Birds / # Tested	23 / 531	45 / 846
# Positive Mosquito Pools / # Tested	135 / 13,315	177 / 13,234
# Seroconversions / # Tested	0 / 2,193	0 / 2,309

YTD WNV Activity by Element and County, 2021					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Butte				6	
Contra Costa				1	
Fresno		1		49	
Kern				10	
Los Angeles			5	21	
Madera				4	
Placer			1	3	
Sacramento			29	17	
San Joaquin			4	30	
San Luis Obispo	1				
Shasta				2	
Sonoma			1		
Stanislaus				5	
Tulare			5	28	
Yolo				1	
Totals	1	1	45	177	0

TESTING SUMMARIES

Humans

		WNV	SLEV	WEEV
Human Cases	Week	1	0	0
	YTD	1	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	33	10
	YTD	846	45

Sentinel Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	155	0	0	0
	YTD	2,309	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	62 / 1,329	0 / 1,329	0 / 1,212	0 / 9	0 / 9	0 / 9
	YTD	177 / 13,234	0 / 12,176	0 / 11,375	0 / 99	0 / 99	0 / 99

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Placer	Placer MVCD	Granite Bay	95746	American Crow	7/1/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	California Scrub-Jay	7/2/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Yellow-billed Magpie	7/2/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Galt	95632	American Crow	6/30/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Galt	95632	California Scrub-Jay	7/2/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95828	American Crow	6/10/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95828	American Crow	7/2/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95830	California Scrub-Jay	6/29/2021	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95838	Yellow-billed Magpie	7/6/2021	WNV
San Joaquin	San Joaquin Co MVCD	Manteca	95336	California Scrub-Jay	7/1/2021	WNV

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Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO1539	147	Cx. tarsalis	Dayton	50	CO2	6/30/21	WNV
Butte	BUCO29	144	Cx. tarsalis	Chico	50	CO2	7/1/21	WNV
Butte	BUCO60	140	Cx. tarsalis	Gridley	50	CO2	7/1/21	WNV
Fresno	CNSL1679	180	Cx. quinquefasciatus	Clovis	50	GRVD	7/2/21	WNV
Fresno	CNSL2092	149	Unknown	Clovis	50	NA	7/7/21	WNV
Fresno	CNSL2355	161	Cx. quinquefasciatus	Sanger	50	GRVD	7/1/21	WNV
Fresno	CNSL2512	158	Cx. tarsalis	Sanger	24	CO2	7/1/21	WNV
Fresno	CNSL2533	138	Cx. quinquefasciatus	Clovis	29	GRVD	6/30/21	WNV
Fresno	CNSL2560	147	Cx. quinquefasciatus	Sanger	50	GRVD	6/30/21	WNV
Fresno	CNSL2568	160	Cx. quinquefasciatus	Sanger	50	GRVD	7/1/21	WNV
Fresno	CNSL2576	571	Cx. quinquefasciatus	Clovis	49	GRVD	6/29/21	WNV
Fresno	CNSL4126	572	Cx. tarsalis	Clovis	36	CO2	6/29/21	WNV
Fresno	CNSL8527	581	Cx. quinquefasciatus	Selma	50	GRVD	6/30/21	WNV
Fresno	CNSL9220	178	Cx. quinquefasciatus	Clovis	50	GRVD	7/2/21	WNV
Fresno	CNSL9221	179	Cx. quinquefasciatus	Clovis	50	GRVD	7/2/21	WNV
Fresno	CNSL9222	163	Cx. quinquefasciatus	Sanger	35	GRVD	7/1/21	WNV
Fresno	FRNO238	247	Cx. quinquefasciatus	Fresno	50	GRVD	6/30/21	WNV
Fresno	FRNO30043	254	Cx. quinquefasciatus	Fresno	50	GRVD	6/30/21	WNV
Fresno	FRNO36	249	Cx. quinquefasciatus	Fresno	50	GRVD	6/30/21	WNV
Fresno	FRWS2105	137	Cx. tarsalis	Firebaugh	50	CO2	7/7/21	WNV
Fresno	FRWS300005	122	Cx. tarsalis	Firebaugh	50	CO2	7/1/21	WNV
Fresno	FRWS300005	126	Cx. tarsalis	Firebaugh	50	CO2	7/1/21	WNV
Fresno	FRWS300029	130	Cx. tarsalis	Firebaugh	50	CO2	7/1/21	WNV
Fresno	FRWS300031	120	Cx. tarsalis	Dos Palos	45	CO2	7/1/21	WNV
Fresno	FRWS300031	138	Cx. tarsalis	Dos Palos	50	CO2	7/7/21	WNV
Fresno	FRWS300031	140	Cx. tarsalis	Dos Palos	39	CO2	7/7/21	WNV
Fresno	FRWS30026	127	Cx. tarsalis	Firebaugh	50	CO2	7/1/21	WNV
Fresno	FRWS30026	128	Cx. tarsalis	Firebaugh	50	CO2	7/1/21	WNV
Fresno	FRWS30026	129	Cx. tarsalis	Firebaugh	50	CO2	7/1/21	WNV
Fresno	FRWS3104	134	Cx. tarsalis	Mendota	50	CO2	7/7/21	WNV
Fresno	FRWS32	141	Cx. tarsalis	Firebaugh	50	CO2	7/7/21	WNV
Kern	KERN15	156	Cx. quinquefasciatus	Arvin	50	GRVD	6/29/21	WNV
Kern	KERN25	190	Cx. quinquefasciatus	Lamont	50	CO2	7/2/21	WNV
Kern	KERN29	175	Cx. quinquefasciatus	Bakersfield	50	CO2	7/1/21	WNV
Los Angeles	SGVA1193	537	Cx. quinquefasciatus	West Covina	44	GRVD	7/7/21	WNV
Los Angeles	SGVA15	546	Cx. quinquefasciatus	Irwindale	30	GRVD	7/7/21	WNV
Los Angeles	SGVA477	533	Cx. quinquefasciatus	Covina	32	GRVD	7/7/21	WNV
Los Angeles	SGVA64	536	Cx. quinquefasciatus	West Covina	22	GRVD	7/7/21	WNV
Los Angeles	SGVA8100	554	Cx. quinquefasciatus	Glendora	17	GRVD	7/7/21	WNV
Madera	FRWS300029	131	Cx. tarsalis	Firebaugh	50	CO2	7/7/21	WNV
Madera	FRWS300029	132	Cx. tarsalis	Firebaugh	50	CO2	7/7/21	WNV
Madera	FRWS5101	133	Cx. tarsalis	Firebaugh	50	CO2	7/7/21	WNV
Placer	PLCR389429	635	Cx. tarsalis	Lincoln	50	CO2	7/6/21	WNV
Sacramento	SAYO1216	1953	Cx. pipiens	Citrus Heights	2	GRVD	7/7/21	WNV
Sacramento	SAYO204043	1871	Cx. tarsalis	Sacramento	17	CO2	7/7/21	WNV
Sacramento	SAYO233116	1813	Cx. tarsalis	South Sacramento	3	BGSENT	7/2/21	WNV
San Joaquin	SJCM2460	708	Cx. tarsalis	Manteca	42	CO2	7/7/21	WNV
San Joaquin	SJCM2460	764	Cx. tarsalis	Stockton	23	CO2	7/9/21	WNV
San Joaquin	SJCM2478	780	Cx. pipiens	Lodi	42	CO2	7/9/21	WNV
San Joaquin	SJCM2508	768	Cx. pipiens	Lodi	21	CO2	7/9/21	WNV

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San Joaquin	SJCM432	788	Cx. tarsalis	Stockton	31	CO2	7/9/21	WNV
San Joaquin	SJCM8056	706	Cx. tarsalis	Tracy	30	CO2	7/7/21	WNV
San Joaquin	SJCM8208	776	Cx. tarsalis	Stockton	5	CO2	7/9/21	WNV
San Joaquin	SJCM8209	765	Cx. pipiens	Stockton	20	CO2	7/9/21	WNV
Stanislaus	TRLK	326	Cx. pipiens	Hughson	35	CO2	7/7/21	WNV
Stanislaus	TRLK1906	308	Cx. pipiens	Turlock	50	CO2	7/7/21	WNV
Tulare	DLTA129	489	Cx. quinquefasciatus	Visalia	41	GRVD	7/2/21	WNV
Tulare	DLTA238	498	Cx. quinquefasciatus	Visalia	15	GRVD	7/7/21	WNV
Tulare	DLTA8413	495	Cx. quinquefasciatus	Visalia	45	GRVD	7/7/21	WNV
Tulare	DLTA8424	476	Cx. quinquefasciatus	Visalia	16	GRVD	7/1/21	WNV
Tulare	DLTA8530	443	Cx. quinquefasciatus	Visalia	10	GRVD	6/29/21	WNV
Tulare	DLTA9411	473	Cx. quinquefasciatus	Visalia	10	GRVD	7/1/21	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 Diseases Laboratory (VRDL) for further testing with a plaque reduction neutralization test (PRNT)

Dead Birds

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

Sentinel Chickens:

Dried blood spot samples from sentinel chickens are tested at California Department of Public Health Vector Borne Disease Laboratory for IgG antibodies to West Nile, St. Louis encephalitis, and western equine encephalomyelitis viruses by 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-PCR. Invasive Aedes mosquitoes (Ae. aegypti and Ae. albopictus) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-PCR.

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