

California Arbovirus Surveillance Bulletin #26

Week 40 Friday, October 4, 2024



WEEKLY UPDATE

Humans

West Nile virus

A total of 11 new human cases of West Nile virus (WNV) disease were reported this week from 8 counties: Fresno (1), Los Angeles (4), Sacramento (1), San Bernardino (1), San Diego (1), San Joaquin (1), Stanislaus (1), and Yolo (1). **This is the first human case of WNV disease for San Diego County this year.** In 2024, 74 human cases of WNV disease were reported from 21 counties. Of the 74 cases, 55 (74%) had neuroinvasive disease and 7 (9.5%) were fatal. The median age of the case-patients was 59 years and 46 (62%) of the case-patients were male. The dates of symptom onset ranged from May 28 to September 5. In addition to the 74 cases of WNV disease, 12 asymptomatic WNV-positive blood donors have been reported from 6 counties: Butte (1), Fresno (3), Los Angeles (3), San Bernardino (2), Santa Clara (2), and Stanislaus (1). At this time last year, 205 human cases of WNV disease had been reported from 28 counties.

St. Louis encephalitis virus

No human cases of St. Louis encephalitis virus (SLEV) disease have been reported. At this time last year, 3 human cases of SLEV disease had been reported from 2 counties.

Dead Birds

A total of 14 new WNV positive dead birds were reported from 7 counties: Alameda (2), Fresno (1), Lake (1), Los Angeles (3), Sacramento (3), Santa Clara (3), and Yolo (1). **This is the first WNV positive dead bird reported from Fresno County this year.** In 2024, 488 WNV positive dead birds have been reported from 21 counties. At this time last year, 743 WNV positive dead birds had been reported from 30 counties.

Mosquito Pools

West Nile virus

A total of 69 new WNV positive mosquito pools were reported from 7 counties: Fresno (7), Los Angeles (20), Merced (2), San Joaquin (8), Stanislaus (6), Tulare (25), and Yolo (1). In 2024, 1,904 WNV positive mosquito pools have been reported from 25 counties. At this time last year, 4,223 WNV positive mosquito pools had been reported from 31 counties.

St. Louis encephalitis virus

A total of 2 new SLEV positive mosquito pools were reported from 1 county: Tulare (2). In 2024, 28 SLEV positive mosquito pools have been reported from 5 counties: Fresno (13), Imperial (1), Kings (3), Madera (4), and Tulare (7). At this time last year, 639 SLEV positive mosquito pools had been reported from 15 counties.

Sentinel Chickens

A total of 10 new WNV positive chickens were reported this week from 6 counties: Alameda (1), Butte (1), Lake (2), Los Angeles (4), Sutter (1), and Tehama (1). **This is the first WNV positive sentinel chicken reported from Alameda County this year.** In 2024, 149 WNV positive sentinel chickens have been reported from 16 counties. At this time last year, 167 WNV positive chickens had been reported from 17 counties.

California Arbovirus Surveillance Bulletin #26

Week 40 Friday, October 4, 2024

2023 & 2024 YTD West Nile Virus Comparisons		
	2023	2024
Total No. Dead Bird Reports	5,883	5,626
No. Positive Counties	41	31
No. Human Cases	205	74
No. Positive Dead Birds / No. Tested	743 / 1,764	488 / 1,644
No. Positive Mosquito Pools / No. Tested	4,223 / 47,331	1,904 / 42,024
No. Seroconversions / No. Tested	167 / 3,226	149 / 4,205

YTD WNV Activity by Element and County, 2024					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			52	20	1
Butte	11		4	70	28
Calaveras	1				
Colusa	1		1		2
Contra Costa	2		6	10	8
Fresno	11		1	207	
Imperial				3	
Kern	2			47	
Kings	5			87	
Lake			3	13	7
Los Angeles	6	1	16	177	36
Madera			1	108	
Merced	1		1	43	12
Nevada					1
Orange	1		1	42	
Placer		1	3	93	
Riverside	3		2	217	
Sacramento	3	1	65	53	1
San Bernardino	4		10	76	
San Diego	1	1	4		
San Joaquin	2	1	6	175	
San Mateo			31		
Santa Clara	3		271	33	
Shasta	1			37	2
Solano			2	13	5
Stanislaus	5			55	
Sutter				32	20
Tehama	1				6
Tulare				197	10
Yolo	6		6	64	3
Yuba	4	1	2	32	7
Totals	74	6	488	1,904	149

California Arbovirus Surveillance Bulletin #26

Week 40 Friday, October 4, 2024

TESTING SUMMARIES

		WNV	SLEV	WEEV
Human Cases	Week	11	0	0
	YTD	74	0	0

Positive / Total Tested							
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA

Dead Birds	Week	14 / 39
	YTD	488 / 1,644

Chicken Sera	Week	10 / 248	0 / 248	0 / 248
	YTD	149 / 4,205	0 / 4,205	0 / 4,205

Mosquito Pools	Week	69 / 1,537	2 / 1,537	0 / 1,537	0 / 55	0 / 55	0 / 55
	YTD	1,904 / 42,024	28 / 39,150	0 / 39,173	0 / 1,050	0 / 1,050	0 / 1,050

POSITIVES

Dead Birds

County	Submitting Agency	City	Zip Code	Species	Date Reported	Virus
Alameda	Alameda Co MAD	Alameda	94502	American Crow	9/20/2024	WNV
Alameda	Alameda Co MAD	Alameda	94501	Sparrow	9/24/2024	WNV
Fresno	Fresno MVCD	Biola	93606	Unknown - songbird	9/23/2024	WNV
Lake	Lake Co VCD	Nice	95464	American Crow	9/27/2024	WNV
Los Angeles	Los Angeles Co West VCD	Baldwin Hills	90008	American Crow	9/25/2024	WNV
Los Angeles	Los Angeles Co West VCD	Culver City	90232	American Crow	9/26/2024	WNV
Los Angeles	Los Angeles Co West VCD	Los Angeles	90045	American Crow	10/1/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95825	American Crow	9/27/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Citrus Heights	95610	California Scrub-Jay	9/28/2024	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Yellow-billed Magpie	10/1/2024	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95123	Unknown - Crow or Raven	9/26/2024	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94304	American Crow	9/30/2024	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94306	American Crow	9/30/2024	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95616	American Crow	9/29/2024	WNV

Mosquito Pools

County	Site	Pool No	Species	City	Pool Size	Trap	Collected	Virus
Fresno	CNSL 1210	962	Cx quinquefasciatus	Fresno	24	GRVD	09/27/2024	WNV
Fresno	CNSL 1315	964	Cx quinquefasciatus	Fresno	50	GRVD	09/27/2024	WNV
Fresno	CNSL 3051	295	Cx stigmatosoma	Sanger	17	GRVD	09/25/2024	WNV
Fresno	CNSL 5171	283	Cx quinquefasciatus	Kingsburg	46	GRVD	09/24/2024	WNV

California Arbovirus Surveillance Bulletin #26

Week 40 Friday, October 4, 2024

Fresno	CNSL 6321	299	Cx quinquefasciatus	Laton	27	GRVD	09/27/2024	WNV
Fresno	FRWS 300011	339	Cx tarsalis	Firebaugh	41	CO2	10/01/2024	WNV
Fresno	FRWS 500011	347	Cx tarsalis	Tranquillity	50	CO2	10/01/2024	WNV
Los Angeles	GRLA 2032	5925	Cx quinquefasciatus	Northridge	37	GRVD	09/25/2024	WNV
Los Angeles	GRLA 2100	767	Cx quinquefasciatus	Norwalk	22	GRVD	09/25/2024	WNV
Los Angeles	GRLA 2539	5926	Cx quinquefasciatus	Porter Ranch	13	BGSENT	09/25/2024	WNV
Los Angeles	GRLA 2574	5907	Cx quinquefasciatus	Sherman Oaks	50	GRVD	09/24/2024	WNV
Los Angeles	GRLA 2580	5908	Cx quinquefasciatus	Sherman Oaks	46	GRVD	09/24/2024	WNV
Los Angeles	GRLA 2636	5930	Cx quinquefasciatus	Lake Balboa	50	GRVD	09/25/2024	WNV
Los Angeles	GRLA 2655	5910	Cx quinquefasciatus	Sepulveda Basin	50	GRVD	09/24/2024	WNV
Los Angeles	GRLA 3034	5915	Cx quinquefasciatus	North Hills	43	BGSENT	09/24/2024	WNV
Los Angeles	GRLA 3046	771	Cx quinquefasciatus	Bellflower	30	GRVD	09/26/2024	WNV
Los Angeles	GRLA 3048	768	Cx quinquefasciatus	Pico Rivera	50	GRVD	09/25/2024	WNV
Los Angeles	GRLA 3133	5941	Cx quinquefasciatus	San Fernando	29	GRVD	09/27/2024	WNV
Los Angeles	LACW 1048	964	Cx quinquefasciatus	Inglewood	50	CO2	09/19/2024	WNV
Los Angeles	LACW 1054	969	Cx quinquefasciatus	Inglewood	50	CO2	09/19/2024	WNV
Los Angeles	LACW 1054	970	Cx quinquefasciatus	Inglewood	38	CO2	09/19/2024	WNV
Los Angeles	LACW 1054	986	Cx quinquefasciatus	Inglewood	50	CO2	09/26/2024	WNV
Los Angeles	LACW 1054	987	Cx quinquefasciatus	Inglewood	44	CO2	09/26/2024	WNV
Los Angeles	SGVA 1071	744	Cx quinquefasciatus	Monterey Park	50	GRVD	10/01/2024	WNV
Los Angeles	SGVA 15	767	Cx quinquefasciatus	Glendora	50	GRVD	10/01/2024	WNV
Los Angeles	SGVA 445	745	Cx quinquefasciatus	Rosemead	50	GRVD	10/01/2024	WNV
Los Angeles	SGVA 62	765	Cx quinquefasciatus	Covina	50	GRVD	10/01/2024	WNV
Merced	MERC 398844	655	Cx tarsalis	Gustine	50	BGSENT	09/26/2024	WNV
Merced	MERC 484139	665	Cx tarsalis	Gustine	25	CO2	09/26/2024	WNV
San Joaquin	SJCM 8083	1843	Cx tarsalis	Escalon	50	CO2	10/01/2024	WNV
San Joaquin	SJCM 8083	1850	Cx pipiens	Escalon	50	CO2	10/01/2024	WNV
San Joaquin	SJCM 8083	1851	Cx pipiens	Escalon	54	CO2	10/01/2024	WNV
San Joaquin	SJCM 8206	1806	Cx tarsalis	Lodi	50	CO2	10/01/2024	WNV
San Joaquin	SJCM 8206	1808	Cx tarsalis	Lodi	50	CO2	10/01/2024	WNV
San Joaquin	SJCM 8206	1812	Cx tarsalis	Lodi	50	CO2	10/01/2024	WNV
San Joaquin	SJCM 8206	1813	Cx tarsalis	Lodi	50	CO2	10/01/2024	WNV
San Joaquin	SJCM 8206	1814	Cx tarsalis	Lodi	50	CO2	10/01/2024	WNV
Stanislaus	EAST 1088	24099	Cx pipiens	Modesto	19	BGSENT	09/24/2024	WNV
Stanislaus	EAST 2050	24095	Cx pipiens	Modesto	20	GRVD	09/24/2024	WNV
Stanislaus	TRLK 24357	849	Cx pipiens	Turlock	50	CO2	10/01/2024	WNV
Stanislaus	TRLK 312	788	Cx tarsalis	Newman	50	CO2	10/01/2024	WNV
Stanislaus	TRLK 312	806	Cx tarsalis	Newman	50	CO2	10/01/2024	WNV
Stanislaus	TRLK 9768	840	Cx pipiens	Modesto	50	CO2	10/01/2024	WNV
Tulare	DLTA 184191	3580	Cx quinquefasciatus	Visalia	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 184191	3582	Cx quinquefasciatus	Visalia	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 184191	3583	Cx quinquefasciatus	Visalia	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 184191	3584	Cx quinquefasciatus	Visalia	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 184191	3589	Cx tarsalis	Visalia	12	BGSENT	09/25/2024	WNV
Tulare	DLTA 623641	3810	Cx quinquefasciatus	Kingsburg	41	CO2	10/01/2024	WNV
Tulare	DLTA 6407	3628	Cx quinquefasciatus	Dinuba	36	GRVD	09/25/2024	WNV
Tulare	DLTA 6407	3629	Cx stigmatosoma	Dinuba	16	GRVD	09/25/2024	WNV
Tulare	DLTA 64161	3625	Cx quinquefasciatus	Dinuba	45	GRVD	09/25/2024	WNV
Tulare	DLTA 64174	3682	Cx quinquefasciatus	Dinuba	12	BGSENT	09/26/2024	WNV
Tulare	DLTA 65312	3664	Cx quinquefasciatus	Cutler	45	CO2	09/25/2024	WNV
Tulare	DLTA 73161	3822	Cx stigmatosoma	Traver	50	BGSENT	10/01/2024	WNV
Tulare	DLTA 84131	3686	Cx quinquefasciatus	Visalia	12	CO2	09/26/2024	WNV
Tulare	DLTA 841621	3827	Cx quinquefasciatus	Visalia	50	BGSENT	10/01/2024	WNV
Tulare	DLTA 841621	3827	Cx quinquefasciatus	Visalia	50	BGSENT	10/01/2024	SLEV
Tulare	DLTA 84223	3607	Cx quinquefasciatus	Visalia	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 8424	3803	Cx quinquefasciatus	Visalia	50	BGSENT	10/01/2024	WNV
Tulare	DLTA 8425	3812	Cx quinquefasciatus	Visalia	20	BGSENT	10/01/2024	WNV
Tulare	DLTA 8427	3596	Cx quinquefasciatus	Visalia	32	BGSENT	09/25/2024	WNV
Tulare	DLTA 8434	3721	Cx quinquefasciatus	Visalia	43	BGSENT	09/26/2024	WNV
Tulare	DLTA 9403	3638	Cx quinquefasciatus	Visalia	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 94121	3715	Cx quinquefasciatus	Visalia	50	BGSENT	09/26/2024	WNV
Tulare	DLTA 9503	3655	Cx quinquefasciatus	Visalia	34	BGSENT	09/25/2024	WNV

California Arbovirus Surveillance Bulletin #26

Week 40 Friday, October 4, 2024

Tulare	DLTA 9505	3759	Cx quinquefasciatus	Visalia	50	BGSENT	09/27/2024	SLEV
Tulare	DLTA 9511	3658	Cx quinquefasciatus	Famersville	50	BGSENT	09/25/2024	WNV
Tulare	DLTA 9511	3659	Cx quinquefasciatus	Famersville	39	BGSENT	09/25/2024	WNV
Tulare	DLTA 9606	3642	Cx quinquefasciatus	Farmersville	28	GRVD	09/25/2024	WNV
Yolo	SAYO 114001	5240	Cx tarsalis	Zamora	50	CO2	10/01/2024	WNV

Sentinel Chickens

County	Site Code	Nearest City	Date Bled	Virus	Band 01	Band 02
Alameda	ALCO 200	Unknown	9/23/2024	WNV	0028	
Butte	BUCO 6	Chico	9/25/2024	WNV	2233	
Lake	LAKE 226	Lower Lake	9/26/2024	WNV	2991	2992
Los Angeles	LACW 1001	Rolling Hills Estates	9/17/2024	WNV	3005	
Los Angeles	LACW 1006	Playa Del Rey	9/27/2024	WNV	3030	
Los Angeles	LACW 1012	Venice	9/25/2024	WNV	3046	
Los Angeles	LACW 1049	Inglewood	9/26/2024	WNV	3070	
Sutter	SUYA 14	Sutter	9/26/2024	WNV	3314	
Tehama	TEHA 1	Red Bluff	9/25/2024	WNV	3350	

California Arbovirus Surveillance Bulletin #26

Week 40 Friday, October 4, 2024

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