

## California Arbovirus Surveillance Bulletin #30

Week 44 Friday, Nov 1, 2024



### WEEKLY UPDATE

#### **Humans**

##### West Nile virus

A total of 9 new human cases of West Nile virus (WNV) disease were reported this week from 3 counties: Fresno (2), Los Angeles (6), and Merced (1). In 2024, 107 human cases of WNV disease were reported from 23 counties. Of the 107 cases, 81 (76%) had neuroinvasive disease and 11 (10%) were fatal. The median age of the case-patients was 59.5 years and 67 (63%) of the case-patients were male. The dates of symptom onset ranged from May 28 to October 7. In addition to the 107 cases of WNV disease, 16 asymptomatic WNV-positive blood donors have been reported from 7 counties: Butte (1), Contra Costa (1), Fresno (3), Los Angeles (6), San Bernardino (2), Santa Clara (2), and Stanislaus (1). At this time last year, 299 human cases of WNV disease had been reported from 33 counties.

##### St. Louis encephalitis virus

No human cases of St. Louis encephalitis virus (SLEV) disease have been reported. At this time last year, 12 human cases of SLEV disease had been reported from 6 counties.

##### Dengue virus

In 2024, there have been 13 locally acquired dengue infections reported from 2 counties: Los Angeles (11) and San Diego (2). Locally acquired and travel associated dengue cases are indicated in the CDPH Weekly Update on Number of Dengue Infections:

<https://westnile.ca.gov/pdfs/WeeklyUpdateDengueInfectionsCA.pdf>

#### **Dead Birds**

A total of 14 new WNV positive dead birds were reported from 2 counties: San Diego (1) and Santa Clara (13). In 2024, 521 WNV positive dead birds have been reported from 21 counties. At this time last year, 845 WNV positive dead birds had been reported from 31 counties.

#### **Mosquito Pools**

##### West Nile virus

A total of 2 new WNV positive mosquito pools were reported from 1 county: Los Angeles (2). In 2024, 1,998 WNV positive mosquito pools have been reported from 25 counties. At this time last year, 4,485 WNV positive mosquito pools had been reported from 31 counties.

##### St. Louis encephalitis virus

No new SLEV positive mosquito pools were reported this week. In 2024, 34 SLEV positive mosquito pools have been reported from 5 counties: Fresno (14), Imperial (1), Kings (3), Madera (4), and Tulare (12). At this time last year, 728 SLEV positive mosquito pools had been reported from 15 counties.

#### **Sentinel Chickens**

A single new WNV positive sentinel chicken was reported this week from 1 county: Alameda (1). In 2024, 158 WNV positive sentinel chickens have been reported from 16 counties. At this time last year, 185 WNV positive sentinel chickens had been reported from 17 counties.

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<b>2023 &amp; 2024 YTD West Nile Virus Comparisons</b>		
	<b>2023</b>	<b>2024</b>
Total No. Dead Bird Reports	6,397	6,073
No. Positive Counties	42	32
No. Human Cases	299	107
No. Positive Dead Birds / No. Tested	845 / 1,942	521 / 1,746
No. Positive Mosquito Pools / No. Tested	4,485 / 51,522	1,998 / 47,234
No. Seroconversions / No. Tested	185 / 3,544	158 / 4,593

<b>YTD WNV Activity by Element and County, 2024</b>					
<b>County</b>	<b>Humans</b>	<b>Horses</b>	<b>Dead Birds</b>	<b>Mosquito Pools</b>	<b>Sentinel Chickens</b>
Alameda			53	20	2
Butte	11		4	70	28
Calaveras	1				
Colusa	1		1		2
Contra Costa	3		6	10	8
Fresno	13		1	208	
Glenn	1				
Imperial				3	
Kern	9			48	
Kings	5			87	
Lake			3	13	7
Los Angeles	19	1	17	204	41
Madera			1	110	
Merced	3		1	44	12
Nevada					1
Orange	1		1	48	
Placer		1	4	93	
Riverside	4		3	217	
Sacramento	5	1	66	53	1
San Bernardino	4		10	76	
San Diego	2	1	6		
San Joaquin	2	1	6	188	
San Mateo			36		
Santa Clara	3		292	34	
Shasta	1			37	2
Solano			2	13	8
Stanislaus	5			56	
Sutter				32	20
Tehama	1	1			6
Tulare	1			236	10
Yolo	8		6	66	3
Yuba	4	1	2	32	7
<b>Totals</b>	<b>107</b>	<b>7</b>	<b>521</b>	<b>1,998</b>	<b>158</b>

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### TESTING SUMMARIES

		WNV	SLEV	WEEV
<b>Human Cases</b>	Week	9	0	0
	YTD	107	0	0

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
<b>Dead Birds</b>	Week	14 / 15					
	YTD	521 / 1,746					
<b>Chicken Sera</b>	Week	1 / 80	0 / 80	0 / 80			
	YTD	158 / 4,593	0 / 4,593	0 / 4,593			
<b>Mosquito Pools</b>	Week	2 / 416	0 / 416	0 / 416	0 / 34	0 / 34	0 / 34
	YTD	1,998 / 47,234	34 / 43,655	0 / 43,678	0 / 1,362	0 / 1,362	0 / 1,362

### POSITIVES

#### Dead Birds

County	Submitting Agency	City	Zip Code	Species	Date Reported	Virus
San Diego	San Diego Co VCP	Julian	92036	California Scrub-Jay	9/29/2024	WNV
Santa Clara	Santa Clara Co VCD	Los Altos	94022	Unknown	10/16/2024	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95112	Unknown	10/17/2024	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94303	American Crow	10/18/2024	WNV
Santa Clara	Santa Clara Co VCD	Los Altos	94024	House Wren	10/21/2024	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94303	American Crow	10/22/2024	WNV
Santa Clara	Santa Clara Co VCD	Los Altos	94024	American Crow	10/22/2024	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	10/24/2024	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95126	American Crow	10/24/2024	WNV
Santa Clara	Santa Clara Co VCD	Los Gatos	95032	American Crow	10/24/2024	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95136	American Crow	10/24/2024	WNV
Santa Clara	Santa Clara Co VCD	Mountain View	94040	American Crow	10/24/2024	WNV
Santa Clara	Santa Clara Co VCD	Sunnyvale	94086	American Crow	10/24/2024	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95138	American Crow	10/24/2024	WNV

#### Mosquito Pools

County	Site	Pool No	Species	City	Pool Size	Trap	Collected	Virus
Los Angeles	GRLA 2574	6053	Cx quinquefasciatus	Sherman Oaks	50	GRVD	10/23/2024	WNV
Los Angeles	GRLA 2580	6051	Cx quinquefasciatus	Sherman Oaks	50	GRVD	10/23/2024	WNV

#### Sentinel Chickens

County	Site Code	Nearest City	Date Bled	Virus	Band 01
Alameda	ALCO 200	Unknown	10/21/2024	WNV	26

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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).

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#### **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.

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#### **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.

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#### **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, <https://westnile.ca.gov>, or the California Vector-Borne Disease Surveillance System website, <https://maps.vectorsurv.org>

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