

## California Arbovirus Surveillance Bulletin #31

Week 45 Friday, Nov 8, 2024



### WEEKLY UPDATE

#### **Humans**

##### West Nile virus

A total of 3 new human cases of West Nile virus (WNV) disease were reported this week from 3 counties: Los Angeles (1), San Bernardino (1), and Tulare (1). In 2024, 110 human cases of WNV disease were reported from 23 counties. Of the 110 cases, 84 (76%) had neuroinvasive disease and 11 (10%) were fatal. The median age of the case-patients was 60 years and 69 (63%) of the case-patients were male. The dates of symptom onset ranged from May 28 to October 7. In addition to the 110 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, 317 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, 13 human cases of SLEV disease had been reported from 6 counties.

##### Dengue virus

In 2024, there have been 15 locally acquired dengue infections reported from 3 counties: Los Angeles (12), San Bernardino (1), 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 single (1) new WNV positive dead bird was reported this week from 1 county: Santa Clara (1). In 2024, 522 WNV positive dead birds have been reported from 21 counties. At this time last year, 846 WNV positive dead birds had been reported from 31 counties.

#### **Mosquito Pools**

##### West Nile virus

A total of 5 new WNV positive mosquito pools were reported from 2 counties: Los Angeles (1) and Orange (4). In 2024, 2,003 WNV positive mosquito pools have been reported from 25 counties. At this time last year, 4,492 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**

No new WNV positive sentinel chickens were reported this week. 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.

## California Arbovirus Surveillance Bulletin #31

Week 45 Friday, Nov 8, 2024

<b>2023 &amp; 2024 YTD West Nile Virus Comparisons</b>		
	<b>2023</b>	<b>2024</b>
Total No. Dead Bird Reports	6,465	6,180
No. Positive Counties	42	32
No. Human Cases	317	110
No. Positive Dead Birds / No. Tested	846 / 1,947	522 / 1,752
No. Positive Mosquito Pools / No. Tested	4,492 / 51,767	2,003 / 47,644
No. Seroconversions / No. Tested	185 / 3,562	158 / 4,616

<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	20	1	17	205	41
Madera			1	110	
Merced	3		1	44	12
Nevada					1
Orange	1		1	52	
Placer		1	4	93	
Riverside	4		3	217	
Sacramento	5	1	66	53	1
San Bernardino	5		10	76	
San Diego	2	1	6		
San Joaquin	2	1	6	188	
San Mateo			36		
Santa Clara	3		293	34	
Shasta	1			37	2
Solano			2	13	8
Stanislaus	5			56	
Sutter				32	20
Tehama	2	1			6
Tulare	1			236	10
Yolo	8		6	66	3
Yuba	4	1	2	32	7
<b>Totals</b>	<b>110</b>	<b>7</b>	<b>522</b>	<b>2,003</b>	<b>158</b>

**California Arbovirus Surveillance Bulletin #31**

Week 45 Friday, Nov 8, 2024

**TESTING SUMMARIES**

		WNV	SLEV	WEEV
<b>Human Cases</b>	Week	3	0	0
	YTD	110	0	0

Positive / Total Tested					
WNV	SLEV	WEEV	CHIK	DENV	ZIKA

<b>Dead Birds</b>	Week	1 / 6
	YTD	522 / 1,752

<b>Chicken Sera</b>	Week	0 / 23	0 / 23	0 / 23
	YTD	158 / 4,616	0 / 4,616	0 / 4,616

<b>Mosquito Pools</b>	Week	5 / 270	0 / 270	0 / 270	0 / 28	0 / 28	0 / 28
	YTD	2,003 / 47,644	34 / 43,996	0 / 44,019	0 / 1,390	0 / 1,390	0 / 1,390

**POSITIVES**

**Dead Birds**

County	Submitting Agency	City	Zip Code	Species	Date Reported	Virus
Santa Clara	Central CAHFS	Los Altos Hills	94022	Domestic Duck	10/9/2024	WNV

**Mosquito Pools**

County	Site	Pool No	Species	City	Pool Size	Trap	Collected	Virus
Los Angeles	GRLA 2065	896	Cx quinquefasciatus	Gardena	26	GRVD	10/29/2024	WNV
Orange	ORCO 1020	3488	Cx quinquefasciatus	Seal Beach	28	GRVD	10/30/2024	WNV
Orange	ORCO 321	3460	Cx quinquefasciatus	Anaheim	34	GRVD	10/29/2024	WNV
Orange	ORCO 327	3442	Cx quinquefasciatus	Brea	25	GRVD	10/29/2024	WNV
Orange	ORCO 384	3475	Cx quinquefasciatus	Santa Ana	32	GRVD	10/29/2024	WNV

## California Arbovirus Surveillance Bulletin #31

Week 45 Friday, Nov 8, 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](mailto:Hannah.Romo@cdph.ca.gov)*