### California Arbovirus Surveillance Bulletin #7

Week 21 Friday, May 24, 2024



### **Humans**

No human infections have been reported in 2024.

### **Dead Birds**

No new West Nile virus (WNV) positive dead birds were reported this week. In 2024, 15 WNV positive dead birds have been reported from 5 counties. At this time last year, 10 WNV positive dead birds had been reported from 3 counties.

## **Mosquito Pools**

### West Nile virus

A total of 3 new WNV positive mosquito pools were reported from 2 counties: Fresno (1) and Riverside (2). **This is the first detection of WNV activity in Fresno County this year.** In 2024, 12 WNV positive mosquito pools have been reported from 5 counties. At this time last year, 3 WNV positive mosquito pools had been reported from 3 counties.

## St. Louis encephalitis virus

A single (1) new St. Louis encephalitis virus (SLEV) positive mosquito pool was reported this week from 1 county: Fresno (1). **This is the first detection of SLEV activity in Fresno County this year.** In 2024, 1 SLEV positive mosquito pool has been reported from 1 county. At this time last year, no SLEV positive mosquito pools had been reported.

### **Sentinel Chickens**

No seroconversions have been reported in 2024.

| 2023 & 2024 YTD West Nile Virus Comparisons |           |            |  |  |  |
|---|-----------|------------|--|--|--|
|   | 2023      |            |  |  |  |
| Total No. Dead Bird Reports                 | 1,649     | 1,656      |  |  |  |
| No. Positive Counties                       | 6         | 8          |  |  |  |
| No. Human Cases                             | 0         | 0          |  |  |  |
| No. Positive Dead Birds / No. Tested        | 10 / 271  | 15 / 315   |  |  |  |
| No. Positive Mosquito Pools / No. Tested    | 3 / 6,142 | 12 / 6,055 |  |  |  |
| No. Seroconversions / No. Tested            | 0 / 440   | 0 / 334    |  |  |  |

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| YTD WNV Activity by Element and County, 2024 |        |        |            |                |                   |  |  |
|--|--------|--------|------------|----------------|-------------------|--|--|
| County                                       | Humans | Horses | Dead Birds | Mosquito Pools | Sentinel Chickens |  |  |
| Alameda                                      |        |        | 5          | 1              |                   |  |  |
| Contra Costa                                 |        |        | 1          |                |                   |  |  |
| Fresno                                       |        |        |            | 1              |                   |  |  |
| Los Angeles                                  |        |        |            | 1              |                   |  |  |
| Riverside                                    |        |        |            | 7              |                   |  |  |
| San Diego                                    |        |        | 2          |                |                   |  |  |
| San Mateo                                    |        |        | 4          |                |                   |  |  |
| Santa Clara                                  |        |        | 3          | 2              |                   |  |  |
| Totals                                       |        |        | 15         | 12             |                   |  |  |

# **TESTING SUMMARIES**

|             |      | WNV | SLEV | WEEV |  |
|-------------|------|-----|------|------|--|
| Human Cases | Week | 0   | 0    | 0    |  |
|             | YTD  | 0   | 0    | 0    |  |

|                   |      | Positive / Total Tested |           |           |        |        |        |
|-------------------|------|-------------------------|-----------|-----------|--------|--------|--------|
|                   |      | WNV                     | SLEV      | WEEV      | CHIK   | DENV   | ZIKA   |
| Dead Birds        | Week | 0 / 103                 |           |           |        |        |        |
|                   | YTD  | 15 / 315                |           |           |        |        |        |
| Chicken Sera      | Week | 0 / 181                 | 0 / 181   | 0 / 181   |        |        |        |
|                   | YTD  | 0 / 334                 | 0 / 334   | 0 / 334   |        |        |        |
| Mosquito<br>Pools | Week | 3 / 1,304               | 1 / 1,304 | 0 / 1,304 | 0/0    | 0/0    | 0/0    |
|                   | YTD  | 12 / 6,055              | 1 / 5,956 | 0 / 5,956 | 0 / 95 | 0 / 95 | 0 / 95 |

# **POSITIVES**

## **Mosquito Pools**

| County    | Site      | Pool No | Species             | City        | Pool Size | Trap | Collected | Virus |
|-----------|-----------|---------|---------------------|-------------|-----------|------|-----------|-------|
| Fresno    | CNSL 1838 | 409     | Cx quinquefasciatus | Fresno      | 50        | GRVD | 5/14/2024 | SLEV  |
| Fresno    | FRNO 38   | 212     | Cx quinquefasciatus | Fresno      | 50        | GRVD | 5/22/2024 | WNV   |
| Riverside | COAV 54   | 2419    | Cx tarsalis         | North Shore | 50        | CO2  | 5/21/2024 | WNV   |
| Riverside | COAV 58   | 2398    | Cx tarsalis         | North Shore | 50        | CO2  | 5/23/2024 | 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, <a href="https://westnile.ca.gov">https://westnile.ca.gov</a>, or the California Vector-Borne Disease Surveillance System website, <a href="https://maps.vectorsurv.org">https://maps.vectorsurv.org</a>.

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