

California Arbovirus Surveillance Bulletin #6

Week 19 Friday, May 12, 2017



Weekly Update

Humans

No new cases were reported this week. To date this year, one human case of West Nile Virus (WNV) illness has been reported from Kings County.

Dead Birds

No positive dead birds were reported this week. To date this year, three birds from three counties have tested positive for West Nile virus (WNV). At this time last year, 21 WNV positive birds had been reported from five counties.

Mosquito Pools

Three WNV positive mosquito pools were reported this week from Tulare County. **This is the first detection of WNV activity in Tulare County in 2017.** To date this year, five WNV positive mosquito pools have been reported from three counties. At this time last year, seven WNV positive mosquito pools had been reported from three counties.

Sentinel Chickens

No seroconversions have been reported in 2017.

| 2016 & 2017 YTD West Nile Virus Comparisons | | |
|---|-----------|-----------|
| | 2016 | 2017 |
| Total # Dead Bird Reports | 1,644 | 1,388 |
| # Positive Counties | 6 | 7 |
| # Human Cases | 0 | 1 |
| # Positive Dead Birds / # Tested | 21 / 252 | 3 / 174 |
| # Positive Mosquito Pools / # Tested | 7 / 4,503 | 5 / 6,276 |
| # Seroconversions / # Tested | 0 / 502 | 0 / 1,061 |

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westmile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westmilemaps.usgs.gov

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| YTD WNV Activity by Element and County, 2017 | | | | |
|---|----------|------------|----------------|-------------------|
| County | Humans | Dead Birds | Mosquito Pools | Sentinel Chickens |
| Kings | 1 | | | |
| Los Angeles | | | 1 | |
| Orange | | 1 | | |
| Riverside | | | 1 | |
| San Diego | | 1 | | |
| San Mateo | | 1 | | |
| Tulare | | | 3 | |
| Totals | 1 | 3 | 5 | 0 |

TESTING SUMMARIES

Humans

| | | WNV | SLE | WEE |
|-------------|------|-----|-----|-----|
| Human Cases | Week | 0 | 0 | 0 |
| | YTD | 1 | 0 | 0 |

Dead Birds

| | | Number Tested | WNV Positive |
|------------|------|---------------|--------------|
| Dead Birds | Week | 46 | 0 |
| | YTD | 174 | 3 |

Chickens

| | | Number Tested | WNV Positive | SLEV Positive | WEEV Positive |
|--------------|------|---------------|--------------|---------------|---------------|
| Chicken Sera | Week | 378 | 0 | 0 | 0 |
| | YTD | 1,061 | 0 | 0 | 0 |

Mosquitoes

| | | Positive / Total Tested | | | | | |
|----------------|------|-------------------------|-----------|-----------|---------|---------|---------|
| Mosquito Pools | | WNV | SLEV | WEEV | CHIK | DENV | ZIKA |
| | Week | 3 / 1,088 | 0 / 1,072 | 0 / 906 | 0 / 38 | 0 / 38 | 0 / 38 |
| | YTD | 5 / 6,276 | 0 / 6,094 | 0 / 5,612 | 0 / 179 | 0 / 179 | 0 / 179 |

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New Positives

Mosquito Pools

| County | Site Code | Pool # | Species | City | # in Pool | Trap Type | Collected | Virus |
|--------|------------|--------|----------------------|---------|-----------|-----------|-----------|-------|
| Tulare | DLTA009401 | 1 | Cx. quinquefasciatus | Visalia | 50 | GRVD | 5/2/2017 | WNV |
| Tulare | DLTA009401 | 4 | Cx. quinquefasciatus | Visalia | 44 | GRVD | 5/2/2017 | WNV |
| Tulare | DLTA009506 | 157 | Cx. quinquefasciatus | Visalia | 50 | GRVD | 5/4/2017 | 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 Disease Laboratory (VRDL) for further testing or confirmation.

Dead Birds

Oral swab samples from corvids are collected onto RNA preservation cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by the singleplex RT-PCR Taqman assay and confirmed with a second primer set. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for the presence of antibodies to West Nile, western equine encephalomyelitis, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR.
