

California Arbovirus Surveillance Bulletin #7

Week 14 Friday, April 4, 2014



WEEKLY UPDATE

Humans

No human cases or asymptomatic infections have been reported in 2014.

Dead Birds

Two West Nile virus (WNV) positive dead birds have been reported from Lake and Santa Clara counties. This is the first indication of WNV activity in Lake County this year. To date this year, ten birds have tested positive for WNV from Lake (1), Los Angeles (2), San Joaquin (1), and Santa Clara (6) counties. At this time last year, one WNV dead positive bird had been detected in Los Angeles County.

Mosquito Pools

No positive mosquito pools have been reported in 2014.

Sentinel Chickens

No new seroconversions have been detected. To date this year, one WNV positive chicken has been reported from Los Angeles County. At this time last year, no seroconversions had been detected.

| YTD Activity by Element and County, 2014 | | | | |
|---|----------|------------|----------------|-------------------|
| County | Humans | Dead Birds | Mosquito Pools | Sentinel Chickens |
| Lake | | 1 | | |
| Los Angeles | | 2 | | 1 |
| San Joaquin | | 1 | | |
| Santa Clara | | 6 | | |
| Totals | 0 | 10 | 0 | 1 |

| 2013 & 2014 YTD West Nile Virus Comparisons | | |
|--|-------------|-------------|
| | 2013 | 2014 |
| Total # Dead Bird Reports | 1,472 | 883 |
| # Positive Counties | 1 | 4 |
| # Human Cases | 0 | 0 |
| # Positive Dead Birds / # Tested | 1 / 229 | 10 / 83 |
| # Positive Mosquito Pools / # Tested | 0 / 219 | 0 / 128 |
| # Seroconversions / # Tested | 0 / 242 | 1 / 368 |

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TESTING SUMMARIES

Humans

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

Dead Birds

| | | Number Tested | WNV Positive (recent only) |
|------------|------|---------------|----------------------------|
| Dead Birds | Week | 7 | 2 |
| | YTD | 83 | 10 |

Chickens & Mosquitoes

| | | Number Tested | WNV Positive | SLEV Positive | WEEV Positive |
|------------------------|------|---------------|--------------|---------------|---------------|
| Chicken Sera | Week | 159 | 0 | 0 | 0 |
| | YTD | 368 | 1 | 0 | 0 |
| Mosquito Pools: RT-PCR | Week | 0 | 0 | 0 | 0 |
| | YTD | 128 | 0 | 0 | 0 |

New Positives

Dead Birds

| County | Agency | City | Zip | Species | Reported | Virus | Method |
|-------------|-----------------|----------|-------|---------------|----------|-------|--------|
| Lake | Lake Co VCD | Lakeport | 95453 | Bald Eagle | 2/24/14 | WNV | RT-PCR |
| Santa Clara | Santa Clara VCD | San Jose | 95125 | American Crow | 4/2/14 | WNV | RT-PCR |

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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 or confirmation.

Horses:

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

Dead Birds

Oral swab samples from corvids are collected onto RNase 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.

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 (WEEV), and St. Louis encephalitis (SLEV) viruses by EIA and IFA. Positive samples are confirmed by western-blot or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for WEEV, SLEV, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation 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.

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 Tina Feiszli by phone (510) 412-6253 or email: tina.feiszli@cdph.ca.gov.