

California Arbovirus Surveillance Bulletin # 4

Week 10 Monday, March 15, 2010

Weekly Summary

WEEKLY COMMENTS



Humans

No human cases have been reported in 2010.

Horses

No equine cases have been reported in 2010.

Dead Birds & Tree Squirrels

No positive dead birds have been reported in 2010. A presumptive West Nile virus (WNV) positive bird from Los Angeles County is still pending final results from CVEC.

At this time last year, two birds from two counties (Orange and San Diego) had tested positive for WNV.

Mosquito Pools

No positive mosquito pools have been reported in 2010.

Sentinel Chickens

No seroconversions have been reported in 2010.

At this time last year, three WNV seroconversions in chickens from Los Angeles County had been detected.

| 2009 & 2010 West Nile Virus Comparisons | | |
|---|---------|---------|
| | 2009 | 2010 |
| Total # Dead Bird Reports | 1,143 | 581 |
| # Positive Counties | 3 | 0 |
| # Human Cases | 0 | 0 |
| # Horse Cases | 0 | 0 |
| # Positive Dead Birds / # Tested | 2 / 64 | 0 / 48 |
| # Positive Mosquito Pools / # Tested | 0 / 379 | 0 / 306 |
| # Seroconversions / # Tested | 3 / 61 | 0 / 256 |
| # Positive Squirrels / # Tested | 0 / 0 | 0 / 0 |

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2010 WEEKLY TEST SUMMARIES

Human & Horse Cases

| | | Number Tested | WNV | | WEE | | SLE | | Other | |
|----------------|------|---------------|----------|-------|----------|-------|----------|-------|----------|-------|
| | | | Imported | Local | Imported | Local | Imported | Local | Imported | Local |
| Humans Tested* | Week | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 133 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Horses Tested | Week | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Dead Birds & Tree Squirrels

| | | Number Tested | WNV Positive |
|----------------|------|---------------|--------------|
| Dead Birds | Week | 0 | 0 |
| | YTD | 48 | 0 |
| Tree Squirrels | Week | 0 | -- |
| | YTD | 0 | -- |

Sentinel Chickens & Mosquito Pools

| | | Number Tested | WNV Positive | SLE Positive | WEE Positive |
|------------------------|------|---------------|--------------|--------------|--------------|
| Chicken Sera | Week | 20 | 0 | 0 | 0 |
| | YTD | 256 | 0 | 0 | 0 |
| Mosquito Pools: RT-PCR | Week | 277 | 0 | 0 | 0 |
| | YTD | 306 | 0 | 0 | 0 |
| Mosquito Pools: RAMP | Week | 0 | -- | N/A | N/A |
| | YTD | 0 | -- | N/A | N/A |

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 by plaque reduction neutralization test (PRNT).

*Human denominator data only includes specimens tested at VRDL and does not include additional negative specimens that are tested by local agencies only.

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 and Tree Squirrels:

Dead birds and tree squirrels are necropsied at CAHFS laboratory at University of California, Davis. Oral swabs from American Crows and kidney tissue from all other dead birds and squirrels are forwarded to the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus testing using the singleplex RT-PCR Taqman assay and confirmed with a second primer set. The WNV Dead Bird Surveillance Coordinator, Erin Parker, can be reached directly at (510) 412-6254.

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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 (WEE), and St. Louis encephalitis (SLE) 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 WEE, SLE, 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

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westnile.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.westnilemaps.usgs.gov.