

California Arbovirus Surveillance Bulletin # 18

Week 25 Friday, June 20, 2008

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

One West Nile virus (WNV) positive human case was reported in Tulare County this week. **This is the first WNV human case identified in 2008.**

Horses

No equine cases have been reported in 2008.

Dead Birds & Tree Squirrels

Twenty-eight new West Nile virus (WNV) positive dead birds were reported this week from the following counties: Los Angeles (5), Riverside (1), San Diego (10), San Joaquin (1), Santa Clara (1), Shasta (1), Sutter (1), and Tulare (8). In 2008, 160 WNV positive dead birds have been detected in 18 counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

Seven new positive mosquito pools were reported this week from the following counties: Los Angeles (2), Riverside (1), Sacramento (1), San Joaquin (2), and Stanislaus (1) counties. In 2008, 40 WNV positive mosquito pools have been detected in eleven counties.

Sentinel Chickens

No new seroconversions were reported this week. In 2008, two WNV seroconversions have been detected in chickens from Los Angeles County.

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.

| 2007 & 2008 YTD West Nile Virus Comparisons | | |
|--|------------|-------------|
| | 2007 | 2008 |
| Total # Dead Bird Reports | 11,582 | 11,179 |
| # Positive Counties | 14 | 19 |
| # Human Cases/ # Tested | 1 / 437 | 1 / 345 |
| # Horse Cases/ # Tested | 2 / 130 | 0 / 18 |
| # Positive Dead Birds/ # Tested | 58 / 1,768 | 160 / 1,660 |
| # Positive Mosquito Pools/ # Tested | 18 / 6,549 | 40 / 6,694 |
| # Positive Chicken Sera/ # Tested | 2 / 10,459 | 2 / 10,481 |
| # Positive Squirrels/ # Tested | 0 / 53 | 0 / 55 |

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| County | Humans | Horses | Dead Birds | Mosquito Pools | Sentinel Chickens | Squirrels |
|----------------|----------|----------|------------|----------------|-------------------|-----------|
| Butte | | | 1 | | | |
| Contra Costa | | | 1 | 1 | | |
| El Dorado | | | 1 | | | |
| Fresno | | | | 2 | | |
| Kern | | | 1 | 1 | | |
| Los Angeles | | | 22 | 10 | 2 | |
| Nevada | | | 1 | | | |
| Orange | | | 40 | 2 | | |
| Riverside | | | 3 | 17 | | |
| Sacramento | | | 3 | 1 | | |
| San Bernardino | | | 5 | | | |
| San Diego | | | 41 | | | |
| San Joaquin | | | 5 | 3 | | |
| San Mateo | | | 1 | | | |
| Santa Clara | | | 4 | 1 | | |
| Shasta | | | 5 | | | |
| Stanislaus | | | 2 | 1 | | |
| Sutter | | | 2 | | | |
| Tulare | 1 | | 22 | 1 | | |
| Totals | 1 | 0 | 160 | 40 | 2 | 0 |

2008 TEST SUMMARIES

Human & Horse Cases

| | | Number Tested | WNV | | WEE | | SLE | | Other | |
|-----------------------|------|---------------|----------|-------|----------|-------|----------|-------|----------|-------|
| | | | Imported | Local | Imported | Local | Imported | Local | Imported | Local |
| Humans Tested* | Week | 38 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 345 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Horses Tested | Week | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Dead Birds & Tree Squirrels

| | | Number Tested | WNV Positive |
|-----------------------|------|---------------|--------------|
| Dead Birds | Week | 220 | 28 |
| | YTD | 1660 | 160 |
| Tree Squirrels | Week | 9 | 0 |
| | YTD | 55 | 0 |

Sentinel Chickens & Mosquito Pools

| | | Number Tested | WNV Positive | WEE Positive | SLE Positive |
|-------------------------------|------|---------------|--------------|--------------|--------------|
| Chicken Sera | Week | 910 | 0 | 0 | 0 |
| | YTD | 10,481 | 2 | 0 | 0 |
| Mosquito Pools: RT-PCR | Week | 1,144 | 3 | 0 | 0 |
| | YTD | 6,344 | 36 | 0 | 0 |
| Mosquito Pools: RAMP | Week | 85 | 4 | N/A | N/A |
| | YTD | 350 | 4 | N/A | N/A |

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POSITIVES: 6/16/08 – 6/20/08

Dead Birds

| County | City | Zip | Species | Reported | Tested | Test Method |
|-------------|--------------|-------|----------------------|----------|---------|-------------|
| Los Angeles | Cerritos | 90703 | American Crow | 6/5/08 | 6/16/08 | RT-PCR |
| Los Angeles | Hidden Hills | 91302 | American Crow | 6/13/08 | 6/13/08 | VecTest |
| Los Angeles | Diamond Bar | 91765 | American Crow | 5/28/08 | 6/16/08 | RT-PCR |
| Los Angeles | La Mirada | 90638 | American Crow | 6/2/08 | 6/16/08 | RT-PCR |
| Los Angeles | La Mirada | 90638 | American Crow | 6/4/08 | 6/16/08 | RT-PCR |
| Riverside | Corona | 92882 | American Crow | 6/9/08 | 6/16/08 | RT-PCR |
| San Diego | Bonsall | 92003 | Barn Owl | 6/5/08 | 6/11/08 | RT-PCR |
| San Diego | Vista | 92084 | American Crow | 6/5/08 | 6/11/08 | RT-PCR |
| San Diego | Oceanside | 92057 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | San Diego | 92121 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | Oceanside | 92054 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | Cardiff | 92007 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | Bonita | 91902 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | Fallbrook | 92028 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | Oceanside | 92054 | American Crow | 6/9/08 | 6/13/08 | RT-PCR |
| San Diego | Carlsbad | 92009 | American Crow | 6/12/08 | 6/11/08 | RT-PCR |
| San Joaquin | Tracy | 95376 | American Crow | 6/12/08 | 6/12/08 | RAMP |
| Santa Clara | Santa Clara | 95050 | American Crow | 6/6/08 | 6/6/08 | VecTest |
| Shasta | Anderson | 96007 | Western Scrub-Jay | 6/13/08 | 6/13/08 | VecTest |
| Sutter | Yuba City | 95991 | Yellow-billed Magpie | 6/9/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93291 | American Crow | 6/4/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93292 | American Crow | 6/5/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93291 | Western Scrub-Jay | 6/5/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93277 | House Sparrow | 6/9/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93277 | American Crow | 6/9/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93277 | Mourning Dove | 6/10/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93277 | American Crow | 6/10/08 | 6/16/08 | RT-PCR |
| Tulare | Visalia | 93277 | American Crow | 6/11/08 | 6/16/08 | RT-PCR |

Mosquito Pools

| Site Code | Pool # | Species | # in Pool | Collected | Tested | City | County | Virus |
|-----------|--------|---------------------|-----------|-----------|-----------|---------------|-------------|-------|
| COAV0043 | 1091 | Cx tarsalis | 50 | 6/12/2008 | 6/19/2008 | Mecca | Riverside | WNV |
| EAST1013 | 8047 | Cx tarsalis | 50 | 6/17/2008 | 6/17/2008 | Modesto | Stanislaus | WNV |
| GRLA2249 | 450 | Cx quinquefasciatus | 50 | 6/12/2008 | 6/20/2008 | Pico Rivera | Los Angeles | WNV |
| GRLA2421 | 5291 | Cx quinquefasciatus | 36 | 6/12/2008 | 6/20/2008 | Panorama City | Los Angeles | WNV |
| SAYO4250 | 1625 | Cx tarsalis | 12 | 6/12/2008 | 6/18/2008 | Sacramento | Sacramento | WNV |
| SJCM8076 | 235 | Cx tarsalis | 50 | 6/17/2008 | 6/17/2008 | Stockton | San Joaquin | WNV |
| SJCM8100 | 221 | Cx tarsalis | 28 | 6/17/2008 | 6/17/2008 | Tracy | San Joaquin | WNV |

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NATIONAL COMMENTS

No New Update: As of June 9, 2008, 8 human cases have been reported nationwide this year in Arizona (1), Mississippi (3), Oklahoma (1), Tennessee (1), and Texas (2). None of the cases have resulted in fatalities. In addition, Alabama, California, Florida, Illinois, Indiana, Louisiana, South Carolina, and Utah have reported non-human WNV activity. At this time last year, 6 human cases had been reported nationwide.

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:

All bird and tree squirrel species from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Additionally, doves, pigeons, and chickens are no longer be accepted for testing. Corvids that test positive via RAMP or VecTest are no longer confirmed. Dead birds and 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 WNV 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.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to VBDS Laboratory and tested for the presence of antibodies to West Nile virus (WNV), 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 Stan Husted by phone (510) 412-6253, FAX (510) 412-6263, or email: stan.husted@cdph.ca.gov
