

California Arbovirus Surveillance Bulletin # 4

Week 10 Friday, March 11, 2005

Summary for February 26-March 11, 2005

California Weekly Summary Comments:

Humans:

No positive human cases have been reported.

Horses:

The California Department of Food & Agriculture reported no new WNV positive equine cases.

Dead Birds:

Since January 1, 2005, the hotline has received 3,493 reports of dead birds. Between February 26 and March 11, 2005, 8/154 (5.2%) dead birds tested positive for WNV by RT-PCR performed by the UC Davis Center for Vectorborne Diseases (CVEC). Five additional birds were tested by local agencies. Of these, one out of three American crows tested positive for WNV by VecTest; one American crow tested positive for WNV by RAMP; and one snowy egret tested positive for WNV by immunohistochemistry.

The following bird species tested positive for WNV: American crow (2); Brewer's blackbird (1); lesser goldfinch (1); pine siskin (2); snowy egret (1); Thayer's gull (1); yellow-billed magpie (1); and yellow-rumped warbler (2).

West Nile virus positive birds have been reported in the following counties in 2005: Alameda (1); Contra Costa (3); Fresno (2); Humboldt (1); Kings (1); Los Angeles (2); Orange (2); Sacramento (1); Santa Clara (2); Santa Cruz (1); Solano (1); Sonoma (5); Stanislaus (2); Tulare (2); and Yolo (1). **This is the first indication of WNV activity in Alameda, Kings, and Yolo counties in 2005.**

Since January 1, 2005, 27 out of 545 (5.0%) dead birds have tested positive for WNV.

Mosquito Pools:

CVEC reported no positive mosquito pools.

Chickens:

VRDL reported no chicken seroconversions.

Website Information:

For updated information on WNV, please visit the California WNV website, www.westnile.ca.gov; the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov. Please go to the Vector website at <http://vector.ucdavis.edu/arbo.html> for flock location and more information on WNV and other vector-borne diseases.

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Humans and Horses

TESTING SUMMARIES

| | | Number Tested | WNV Positive | | WEE Positive | | SLE Positive | | Other Positive | |
|----------------------|------|---------------|--------------|-------|--------------|-------|--------------|-------|----------------|-------|
| | | | Imported | Local | Imported | Local | Imported | Local | Imported | Local |
| Individuals Tested | Week | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 161 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Suspect Equine Cases | Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Dead Birds

| | Number Tested | WNV Positive |
|------|---------------|--------------|
| Week | 159 | 11 |
| YTD | 545 | 27 |

Sentinel Chickens and Mosquito Pools

| | | Number Tested | WNV Positive | WEE Positive | SLE Positive | Other Positive |
|----------------|------|---------------|--------------|--------------|--------------|----------------|
| Chicken sera | Week | 107 | 0 | 0 | 0 | 0 |
| | YTD | 883 | 1 | 0 | 0 | 0 |
| Mosquito pools | Week | 94 | 0 | 0 | 0 | 0 |
| | YTD | 600 | 1 | 0 | 0 | 0 |

POSITIVES

WNV Positive Birds Reported February 26-March 11, 2005

| Species | County | City | Zip | Date Collected | Date Tested |
|-----------------------|--------------|------------|-------|----------------|-------------|
| American Crow** | Orange | Orange | 92866 | 2/15/2005 | 2/15/05 |
| American Crow# | Fresno | Clovis | 93612 | 3/1/2005 | 3/1/05 |
| Brewer's Blackbird | Yolo | Davis | 95616 | 2/23/2005 | 3/7/05 |
| Lesser Goldfinch | Alameda | Alameda | 94502 | 2/16/2005 | 3/7/05 |
| Pine Siskin | Kings | Hanford | 93230 | 2/24/2005 | 3/7/05 |
| Pine Siskin | Sonoma | Santa Rosa | 95403 | 2/23/2005 | 3/7/05 |
| Snowy Egret^ | Orange | Orange | 92869 | 1/14/2005 | 1/14/05 |
| Thayer's Gull | Sonoma | Bodega Bay | 94923 | 2/22/2005 | 3/7/05 |
| Yellow-billed Magpie | Stanislaus | Modesto | 95350 | 2/23/2005 | 3/7/05 |
| Yellow-rumped Warbler | Contra Costa | Brentwood | 94513 | 2/22/2005 | 3/7/05 |
| Yellow-rumped Warbler | Tulare | Woodlake | 93286 | 2/24/2005 | 3/7/05 |

**Indicates VecTest

Indicates RAMP

^ Indicates IHC

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Dead Birds:

Dead bird kidney tissues are tested at CVEC using the PCR Taqman assay, subsequent to carcass necropsy at the California Animal Health and Food Safety (CAHFS) Laboratories. Organ pools from PCR positive carcasses are tested using cell culture for virus isolation. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6254.

All bird species (except chickens, doves, and pigeons) from all zip codes are being accepted for testing except from a limited number of agencies. Positive Vec-tests from oral swabs from crows are no longer confirmed. Other bird species tested by RT-PCR using singleplex and confirmed with a second primer set.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens submitted each week to the DHS Viral and Rickettsial Disease Laboratory (VRDL) are 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. The VRDL performs additional testing (including Plaque Reduction Neutralization (PRNT) on specimens from sentinel chickens in which antibodies are detected in new geographic areas. The VRDL also forwards selected serum to the UC Davis Center for Vectorborne Diseases (CVEC) for additional testing for WNV, WEE, and SLE antibodies as needed.

Mosquito Pools:

All mosquito pools are 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. There will be an elimination of *in situ* EIA testing for all mosquito species.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch) and the Viral and Rickettsial Disease Laboratory Branch, Division of Communicable Disease Control, California Department of Health Services, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Al Hom by phone (510) 412-6252, FAX (510) 412-6263, or email [ahom@dhs.ca.gov].