Weekly Summary

WEEKLY COMMENTS

Humans
No human cases have been reported in 2009.

Horses
No equine cases have been reported in 2009.

Dead Birds & Tree Squirrels
One West Nile virus (WNV) positive dead bird from San Diego County was reported this week. To date this year, 12 birds have tested positive for WNV from four counties.
No WNV positive tree squirrels have been reported this year.

Mosquito Pools
CVEC reported 12 new WNV positive mosquito pools from Fresno (10) and Riverside (2) counties this week. **This is the first indication of WNV activity in Riverside County this year.** In 2009, 38 mosquito pools have tested positive for WNV from five counties.

Sentinel Chickens
No seroconversions were reported this week. In 2009, three chickens from Los Angeles County have tested positive for WNV.

Website Information: For updated information on WNV in California, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.ca.gov), or the California Vectorborne Disease Surveillance System website, [www.calsurv.org](http://www.calsurv.org). For national information on WNV and other arboviruses, please visit the CDC website, [www.cdc.gov](http://www.cdc.gov), and the USGS website, [www.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov).

<table>
<thead>
<tr>
<th>County</th>
<th>Humans</th>
<th>Horses</th>
<th>Dead Birds</th>
<th>Mosquito Pools</th>
<th>Sentinel Chickens</th>
<th>Squirrels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contra Costa</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresno</td>
<td>2</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Los Angeles</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riverside</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Diego</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Santa Clara</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>38</td>
<td>3</td>
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### 2009 & 2008 YTD West Nile Virus Comparisons

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
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<tbody>
<tr>
<td>Total # Dead Bird Reports</td>
<td>5,454</td>
<td>4,449</td>
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<tr>
<td># Positive Counties</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td># Human Cases/ # Tested</td>
<td>0 / 250</td>
<td>0 / 326</td>
</tr>
<tr>
<td># Horse Cases/ # Tested</td>
<td>0 / 0</td>
<td>0 / 72</td>
</tr>
<tr>
<td># Positive Dead Birds/ # Tested</td>
<td>14 / 747</td>
<td>12 / 650</td>
</tr>
<tr>
<td># Positive Mosquito Pools/ # Tested</td>
<td>9 / 2,692</td>
<td>38 / 3,946</td>
</tr>
<tr>
<td># Positive Chicken Sera/ # Tested</td>
<td>2 / 5,629</td>
<td>3 / 4,923</td>
</tr>
<tr>
<td># Positive Squirrels/ # Tested</td>
<td>0 / 30</td>
<td>0 / 18</td>
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</table>

#### 2009 TEST SUMMARIES

**Human & Horse Cases**

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<thead>
<tr>
<th>Number Tested</th>
<th>WNV</th>
<th>WEE</th>
<th>SLE</th>
<th>Other</th>
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<tbody>
<tr>
<td></td>
<td>Imported</td>
<td>Local</td>
<td>Imported</td>
<td>Local</td>
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<tr>
<td>Humans Tested*</td>
<td>Week</td>
<td>8</td>
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<td>0</td>
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<tr>
<td></td>
<td>YTD</td>
<td>326</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Horses Tested</td>
<td>Week</td>
<td>6</td>
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<td>0</td>
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<tr>
<td></td>
<td>YTD</td>
<td>72</td>
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**Dead Birds & Tree Squirrels**

<table>
<thead>
<tr>
<th>Number Tested</th>
<th>WNV Positive</th>
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</thead>
<tbody>
<tr>
<td>Dead Birds</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>114</td>
</tr>
<tr>
<td>YTD</td>
<td>650</td>
</tr>
<tr>
<td>Tree Squirrels</td>
<td>Week</td>
</tr>
<tr>
<td></td>
<td>YTD</td>
</tr>
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**Sentinel Chickens & Mosquito Pools**

<table>
<thead>
<tr>
<th>Number Tested</th>
<th>WNV Positive</th>
<th>WEE Positive</th>
<th>SLE Positive</th>
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<tr>
<td>Chicken Sera</td>
<td>Week</td>
<td>658</td>
<td>0</td>
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<td></td>
<td>YTD</td>
<td>4,923</td>
<td>3</td>
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<tr>
<td>Mosquito Pools: RT-PCR</td>
<td>Week</td>
<td>880</td>
<td>12</td>
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<tr>
<td></td>
<td>YTD</td>
<td>3,742</td>
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<td>Mosquito Pools: RAMP</td>
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<td>41</td>
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<tr>
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<td>YTD</td>
<td>204</td>
<td>24</td>
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California Arbovirus Surveillance Bulletin # 15  
Week 20 Friday, May 22, 2009

**POSITIVES**

### Dead Birds

<table>
<thead>
<tr>
<th>County</th>
<th>City</th>
<th>Zip</th>
<th>Species</th>
<th>Reported</th>
<th>Tested</th>
<th>Virus</th>
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<tbody>
<tr>
<td>San Diego</td>
<td>La Mesa</td>
<td>94941</td>
<td>Red-Shouldered Hawk</td>
<td>4/7/09</td>
<td>5/18/09</td>
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### Mosquitoes

<table>
<thead>
<tr>
<th>County</th>
<th>Site Code</th>
<th>Pool #</th>
<th># in Pool</th>
<th>Species</th>
<th>Collected</th>
<th>Tested</th>
<th>City</th>
<th>Virus</th>
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<tbody>
<tr>
<td>Fresno</td>
<td>CNSL1624</td>
<td>35</td>
<td>50</td>
<td>Cx quinquefasciatus</td>
<td>5/19/2009</td>
<td>5/20/2009</td>
<td>Fresno</td>
<td>WNV</td>
</tr>
<tr>
<td>Fresno</td>
<td>CNSL1627</td>
<td>36</td>
<td>50</td>
<td>Cx quinquefasciatus</td>
<td>5/19/2009</td>
<td>5/20/2009</td>
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<td>WNV</td>
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<tr>
<td>Fresno</td>
<td>CNSL1629</td>
<td>37</td>
<td>50</td>
<td>Cx quinquefasciatus</td>
<td>5/19/2009</td>
<td>5/20/2009</td>
<td>Fresno</td>
<td>WNV</td>
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<td>Fresno</td>
<td>CNSL1630</td>
<td>38</td>
<td>50</td>
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<td>5/20/2009</td>
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<td>43</td>
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<td>5/19/2009</td>
<td>5/20/2009</td>
<td>Fresno</td>
<td>WNV</td>
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<tr>
<td>Fresno</td>
<td>CNSL1630</td>
<td>44</td>
<td>50</td>
<td>Cx quinquefasciatus</td>
<td>5/19/2009</td>
<td>5/20/2009</td>
<td>Fresno</td>
<td>WNV</td>
</tr>
<tr>
<td>Fresno</td>
<td>CNSL1629</td>
<td>46</td>
<td>49</td>
<td>Cx quinquefasciatus</td>
<td>5/19/2009</td>
<td>5/20/2009</td>
<td>Fresno</td>
<td>WNV</td>
</tr>
<tr>
<td>Fresno</td>
<td>CNSL1628</td>
<td>47</td>
<td>50</td>
<td>Cx tarsalis</td>
<td>5/19/2009</td>
<td>5/20/2009</td>
<td>Fresno</td>
<td>WNV</td>
</tr>
<tr>
<td>Riverside</td>
<td>RIVR0019</td>
<td>92</td>
<td>50</td>
<td>Cx erythrothorax</td>
<td>5/20/2009</td>
<td>5/21/2009</td>
<td>Murietta</td>
<td>WNV</td>
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<tr>
<td>Riverside</td>
<td>RIVR0019</td>
<td>93</td>
<td>50</td>
<td>Cx erythrothorax</td>
<td>5/20/2009</td>
<td>5/21/2009</td>
<td>Murietta</td>
<td>WNV</td>
</tr>
</tbody>
</table>

**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.

**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) 412-6298 or email: tina.feiszli@cdph.ca.gov