



## MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

# DISEASE SURVEILLANCE REPORT

**September 2015**

### **West Nile Virus Activity**

No further West Nile Virus (WNV) activity has been detected in Santa Barbara County since a sample pool of mosquitoes collected at Lake Los Carneros, City of Goleta on April 1-2, 2015 tested positive for the disease. High levels of WNV have been reported in other parts of California. 201 human cases (10 fatal) have been confirmed from 27 counties. A total of 967 WNV positive dead birds have been collected in 36 counties along with 2,768 WNV positive mosquito pools from 29 counties. Also, 314 WNV positive sentinel chickens in 78 flocks have been reported from 21 counties. One confirmed human case, 19 dead birds, and 5 sentinel chickens have been reported in Ventura County.

Additionally, 35 mosquito pools and 3 sentinel chickens from 2 flocks from the Coachella Valley have tested positive for St. Louis Encephalitis (SLE). SLE is a native virus that is very similar to WNV. Both are in the family Flaviviridae. Until August 2015, neither SLE nor Western Equine Encephalitis activity had been detected in California since the arrival of WNV in 2003.

Statistics for California WNV activity can be found online at [www.westnile.ca.gov](http://www.westnile.ca.gov). National statistics for WNV can be found at the National Centers for Disease Control and Prevention website at [www.cdc.gov](http://www.cdc.gov).

### **Live Mosquito-Borne Virus Surveillance**

The District conducted 11 mosquito trapping surveys in September 2015. The results are shown in the table below. The District has submitted 207 sample pools for laboratory analysis in 2015 to date. Only the pool of 50 Encephalitis Mosquitoes (*Culex tarsalis*) collected at Lake Los Carneros, Goleta on April 1-2, 2015 has tested positive for WNV.

LOCATION	DATE	NUMBER of MOSQUITOES	NUMBER of TRAPS	MOSQUITOES PER TRAP NIGHT*	POOLS SUBMITTED	RESULT
Orcutt Creek @ Bradley Rd., Orcutt	9/8-9/15	13	5	2.6	0	N.A.
Orcutt Creek @ Highway 135, Orcutt	9/8-9/15	15	4	3.8	0	N.A.
Orcutt Creek @ Broadway, Orcutt	9/8-9/15	49	7	7.0	3	Negative
Carpinteria Salt Marsh, Carpinteria	9/10-11/15	194	14	13.9	5	Negative
Jalama Creek, Jalama Beach County Park	9/21-22/15	~5,200	11	~496.4	18	Negative
Chumash Park, Pismo Beach	9/24-25/15	81	9	9.0	2	Negative
Pismo Creek, Pismo Beach	9/24-25/15	9	3	3.0	0	N.A.
Bailey Wetland, Lompoc	9/29-30/15	15	4	3.8	0	N.A.
Santa Ynez River @ Floradale Ave., Lompoc	9/29-30/15	9	4	2.3	0	N.A.
Club House Rd., Vandenberg Village	9/29-30/15	33	4	8.3	0	N.A.
E. end of Burton Mesa Blvd., Mission Hills	9/29-30/15	9	3	3.0	0	N.A.

\*Mosquitoes Per Trap Night = Number of Mosquitoes ÷ (Number of Traps x 1 Night)

This surveillance technique utilizes battery-powered traps that use dry ice as a source of carbon dioxide to attract adult female mosquitoes that are actively seeking a blood meal. The live female mosquitoes are taken into the District's laboratory where they are anesthetized with triethylamine under the fume hood. They are then separated by species using a stereo zoom microscope and placed into "pools." The pools (1 pool = up to 50 adult female mosquitoes of a single species collected at one place at one time) are stored in the District's ultra-low temperature freezer at -70°C until they can

be submitted to the U.C. Davis Center for Vector-Borne Diseases at Davis, California where they are analyzed for the presence of live mosquito-borne viruses including WNV.

### **West Nile Virus Dead Bird Submissions**

The District submitted 3 dead bird samples in September 2015. All 3 were Crows from Solvang, Santa Ynez, and the Goleta Valley. The Crow from Solvang tested negative for WNV. Laboratory results are pending for the Crows from Santa Ynez and the Goleta Valley. All dead bird samples tested in 2015 to date have been negative for WNV.

Citizens can report dead birds to the California Department of Public Health's toll free West Nile Virus Dead Bird Hotline (1-877-968-2473 or 1-877-WNV-BIRD) or online at [www.westnile.ca.gov](http://www.westnile.ca.gov). Local agencies will pick up the dead birds and collect samples via oral swabs that are transferred to RNase cards. The RNase cards are dried outdoors for at least two hours then mailed to the U.C. Davis Center for Vector-Borne Diseases where the samples will be analyzed for West Nile Virus.

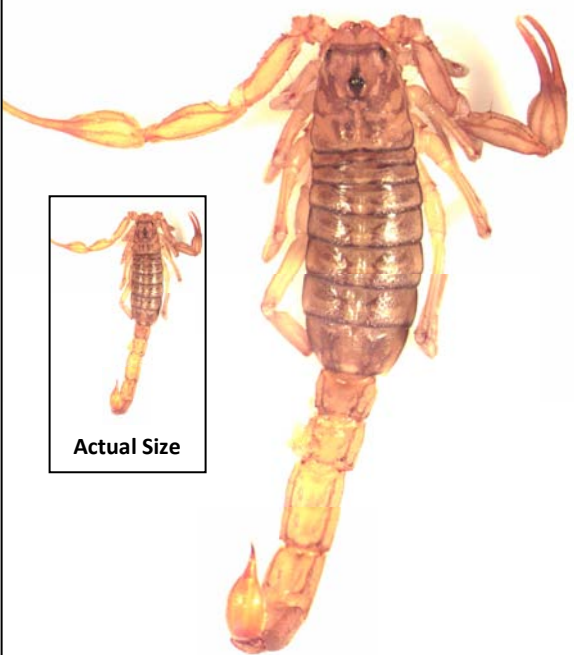
### **Sentinel Chicken Flocks**

District personnel are obtaining blood samples from the District's 5 sentinel chicken flocks every two weeks. In 2015 to date all samples have tested negative for WNV and other mosquito-borne encephalitis viruses.

Samples of blood are collected from each chicken on strips of filter paper and dried overnight. They are then submitted to the California Department of Public Health Vector-Borne Disease Laboratory at Richmond, California where they are analyzed for antibodies to WNV and other mosquito-borne viruses.

### **Tick-Borne Disease Surveillance**

The California Department of Public Health reported that tick testing results came back and no *Rickettsia* spp. were detected in the 10 Pacific Coast Ticks (*Dermacentor occidentalis*) collected from the Davy Brown Trail in the Los Padres National Forest on June 10, 2015.



**SCORPIONS**  
**Class Arachnida; Order Scorpionida**

This scorpion, a native *Serradigitus gertschi*, was collected by a District employee in his Buellton home and identified with the help of CDPH. Many people are not aware that scorpions are native to coastal Southern California. The sting of these native species is not considered dangerous to humans except possibly for hypersensitive individuals. An Arizona species, the Bark Scorpion (*Centruroides exilicauda*), is dangerously venomous to humans. Bark Scorpions have been introduced into some areas of Southern California and have adapted very well to the urban environment. Some homes have had hundreds removed from shake shingle roofs.