



## MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

# DISEASE SURVEILLANCE REPORT

September 2014

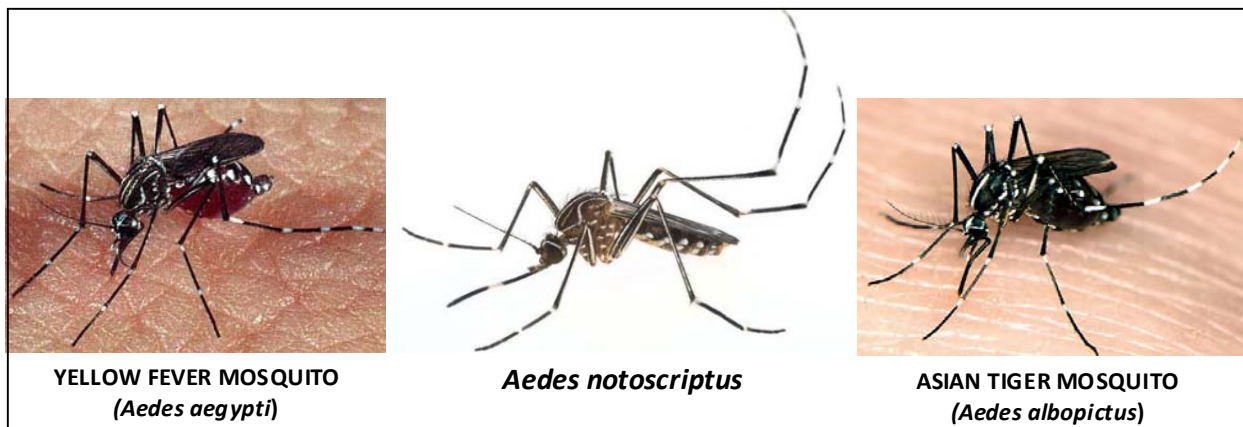
### West Nile Virus Activity

No West Nile Virus (WNV) activity has been detected in Santa Barbara County in 2014 to date. However, infection rates of mosquitoes with WNV in California are at the highest levels since the disease arrived in 2003. As of October 1, 2014, 428 confirmed human cases (15 fatal) have been documented from 29 California counties. A total of 2,155 dead birds from 35 counties have tested positive for the disease. 3,047 WNV positive mosquito pools have been reported from 29 counties. A total of 361 WNV positive sentinel chickens from 85 flocks have been reported from 21 counties. The bulk of the activity has been recorded from the Central Valley, but high levels of WNV are also being detected in Los Angeles, Orange, and Santa Clara Counties. Five of the dead birds, all Crows, have been reported from Ventura County, 3 in the City of Ventura and one each in Port Hueneme and Simi Valley. A horse case of WNV has been confirmed in northern San Luis Obispo County.

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).

### "Aussie Mozzie" Discovered in Los Angeles County

Specimens of *Aedes notoscriptus*, an Australian native sometimes called the "Aussie Mozzie," have been collected from several properties in the Los Angeles County communities of Montebello and Monterey Park. It is believed to be the first time this mosquito species has been found in North America. The San Gabriel Valley Mosquito and Vector Control District and the Greater Los Angeles County Vector Control District made the discoveries while doing expanded surveillance for Asian Tiger Mosquito (*Aedes albopictus*). The specimens were positively identified with help from specialists at the University of Sydney, Australia. *Ae. notoscriptus* is capable of transmitting several viruses to humans and is one of the primary vectors of Dog Heartworm (*Dirofilaria immitis*) in Australia. Much like *Aedes aegypti* and *Ae. albopictus*, *Ae. notoscriptus* readily breeds in backyard containers partially filled with water.



## Live Mosquito-Borne Virus Surveillance

District staff conducted 13 live mosquito trapping surveys during the month of September 2014. The results are shown in the table below. All mosquito sample pools submitted for laboratory analysis for WNV and other mosquito-borne viruses have been negative in 2014 to date. Test results on more pools are pending.

LOCATION	DATE	NUMBER of MOSQUITOES	NUMBER of TRAPS	MOSQUITOES PER TRAP NIGHT*	POOLS SUBMITTED	RESULT
El Estero Wastewater Plant, Santa Barbara	9/2-3/14	114	12	9.5	5	Negative
Andree Clark Bird Refuge, Santa Barbara	9/8-9/14	19	13	1.5	0	N.A.
UCSB/Santa Barbara Airport Bluffs	9/11-12/14	180	10	18.0	5	Negative
West Camino Cielo, San Marcos Pass	9/15-16/14	0	3	0.0	0	N.A.
Sage Hill Campground, Santa Ynez Valley	9/15-16/14	68	4	17.0	2	Negative
Cachuma Village, Santa Ynez Valley	9/15-16/14	13	3	4.3	0	N.A.
Santa Ynez River @ Fjord Dr., Solvang	9/15-16/14	11	4	2.8	0	N.A.
Jalama Creek, Jalama Beach County Park	9/17-18/14	722	12	60.2	10	Negative
Bailey Wetland, Lompoc	9/23-24/14	36	4	9.0	2	Negative
Santa Ynez River @ Floradale Ave., Lompoc	9/23-24/14	55	4	13.8	1	Negative
Club House Rd., Vandenberg Village	9/23-24/14	61	3	20.3	2	Negative
E. end of Burton Mesa Blvd., Mission Hills	9/23-24/14	29	4	7.3	1	Negative
Lake Marie Subdivision, Orcutt	9/29-30/14	~3,161	12	~263.4	16	Pending

\*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 one dead bird in September 2014, a Woodpecker from Montecito. The Woodpecker was negative for WNV. All dead bird samples submitted in 2014 to date have tested negative for WNV.

Citizens can report dead birds to the California Department of Public Health's (CDPH) 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 staff is collecting blood samples from all 5 sentinel chicken flocks every two weeks. All samples have tested negative for WNV and other mosquito-borne viruses in 2014 to date.

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.