



MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

DISEASE SURVEILLANCE REPORT

March 2015

West Nile Virus Activity

No West Nile Virus (WNV) activity has been detected in Santa Barbara County in 2015 to date. However, some WNV activity is being reported in other parts of California. A total of 4 WNV positive dead birds have been collected; 3 in Santa Clara County and one in Alameda County. One WNV positive mosquito pool has been reported from Sylmar, Los Angeles County.

Statistics for California WNV activity can be found online at 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.

Yellow Fever Mosquito Update

San Diego County announced the detection of Yellow Fever Mosquito (*Aedes aegypti*) in the City of Escondido. They had previously found *Ae. aegypti* activity in the City of Chula Vista. *Ae. aegypti* activity has also been found in Imperial County in 2015.

The District has begun using its new BG Sentinel Traps at local sites that are possible places for introduction of invasive mosquito species. To date, the BG Sentinel Traps have been deployed at the El Estero Wastewater Treatment Plant in Santa Barbara, the Isla Vista Recreation and Parks Department's facility, and at an employee's home in western Goleta.

Sentinel Chicken Flocks

The 2015 sentinel chicken season is underway as of the week of March 30-April 3. The District's 5 flocks are at the same locations as the last several years; the Carpinteria Sanitary District, the Goleta Sanitary District, the Los Prietos Ranger Station, the City of Solvang Wastewater Treatment Plant, and the Mission Hills Community Services District's Wastewater Treatment Facility. Laboratory results on the season's first bleeding are pending.

The Greater Los Angeles Vector Control District traveled to Modesto, California and picked up the chickens for most Southern California vector control districts. District personnel along with Ventura County Vector Control personnel rendezvoused with the GLAVCD truck near Castaic Junction to exchange the chickens. The District very much appreciates the GLAVCD's willingness to doing that.

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.

Live Mosquito-Borne Virus Surveillance

Live mosquito-borne virus surveillance is also underway for 2015. The District conducted 3 mosquito trapping surveys in February 2015. Adult mosquito numbers have been very low so far. The results are shown in the table below.

LOCATION	DATE	NUMBER of MOSQUITOES	NUMBER of TRAPS	MOSQUITOES PER TRAP NIGHT*	POOLS SUBMITTED	RESULT
UCSB/Santa Barbara Airport Bluffs	3/5-6/15	105	12	8.8	5	Pending
El Estero Wastewater Plant, Santa Barbara	3/17-18/15	116	12	9.7	3	Pending
Andree Clark Bird Refuge, Santa Barbara	3/30-31/15	17	11	1.5	1	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 did not submit any dead birds in March 2015. The California Department of Public Health's WNV Dead Bird Hotline is scheduled to be back in full operation on April 15, 2015. The District will be picking up dead birds countywide in 2015.

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. 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.

