



MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

DISEASE SURVEILLANCE REPORT

March 2016

West Nile Virus Activity

No West Nile Virus (WNV) activity has been detected in Santa Barbara County in 2016 to date. However, 12 WNV positive dead birds have been reported from 4 California counties, 7 of them from San Diego 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.

Zika Virus and Invasive *Aedes* Mosquito Update

There has been no change in the status of invasive *Aedes* mosquitoes in California in the past month. There have been imported cases of Zika virus into California, but no locally transmitted cases. Zika virus information can be found at <http://www.cdph.ca.gov/HealthInfo/discond/Pages/Zika.aspx> and at <http://www.cdc.gov/zika/>.

West Nile Virus Dead Bird Submissions

The District did not submit any dead bird samples in March 2016. A Goldfinch from the City of Santa Barbara submitted in February 2016 tested negative for WNV. All dead bird samples submitted by the District in 2016 have been negative for WNV.

The CDPH West Nile Virus Dead Bird Hotline is scheduled to resume full operations on April 18, 2016. Until then citizens can still report dead birds at www.westnile.ca.gov.

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 Davis Arbovirus Research and Training laboratory on the U.C. Davis campus where the samples will be analyzed for West Nile Virus.

Live Mosquito-Borne Virus Surveillance

The District conducted six mosquito trapping surveys in March 2016. The surveys include the use of both carbon dioxide baited Encephalitis Virus Surveillance (EVS) traps and the human scented BG-Sentinel traps. The results of the surveys are shown in the table below. The number of surveys was curtailed somewhat by a combination of adverse weather and scheduling conflicts. More extensive surveys are planned for April 2016.

LOCATION	DATE	NUMBER of MOSQUITOES	NUMBER of TRAPS [^]	MOSQUITOES PER TRAP NIGHT*	POOLS SUBMITTED	RESULT
6500 block of Covington Way, Goleta City	3/2-3/16	0	1 BG	0	0	N.A.
2594 Lillie Ave., Summerland	3/9-10/16	0	1 BG	0	0	N.A.
2509 Orella St., Santa Barbara City	3/15-16/16	0	1 BG	0	0	N.A.
Lake Los Carneros, Goleta City	3/16-17/16	44	12 EVS	4	2	Pending
Rancho S.B. Mobile Home Park, Goleta Valley	3/24-25/16	0	1 BG	0	0	N.A.
1500 block of Santa Monica Rd., Carpinteria	3/28-4/1/16	0	1 BG	0	0	N.A.

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

[^] EVS = CO₂ trap BG = BG-Sentinel invasive *Aedes* mosquito trap

This surveillance technique utilizes battery-powered Encephalitis Virus Surveillance (EVS) traps that use dry ice as a source of carbon dioxide along with human scented BG-Sentinel traps 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.

Sentinel Chicken Flocks

The 2015 sentinel chicken bleeding season ended in mid-March 2016. All samples submitted in 2016 to date have been negative.

The District purchased 30 chickens from Demler Egg Ranch in San Jacinto. These chickens are replacing the two year old chickens at Goleta and Mission Hills as well as restarting the flock at the U.S. Forest Service's Paradise Road Ranger Station. The 2016 season with every two week chicken blood sampling will begin in mid-April.

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.

