



MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

DISEASE SURVEILLANCE REPORT

March 2014

West Nile Virus Activity

No West Nile Virus (WNV) activity has been detected in Santa Barbara County in 2014 to date. However, 8 dead birds and a sentinel chicken have already tested positive for the disease in other parts of California. Five of the dead birds were collected in Santa Clara County, two in Los Angeles County, and one in San Joaquin County. The sentinel chicken was from El Segundo, Los Angeles County and became infected sometime between bleedings on December 10, 2013 and January 2, 2014.

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.

Sentinel Chicken Flocks

The 2014 sentinel chicken bleeding season will begin the first week of April 2014. The District's 5 flocks are all in place. The flocks are again located at the Carpinteria Sanitary District, the Goleta Sanitary District, the Mission Hills Community Services District, the City of Solvang Wastewater Treatment Plant, and the U.S. Forest Service Ranger Station on Paradise Road in the upper Santa Ynez Valley.

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 trapping has resumed. Surveys conducted during the month of March 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	3/10-11/14	55	13	4.2	4	Pending
El Estero Wastewater Plant, Santa Barbara	3/27-28/14	36	12	3.0	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 bird samples in March 2014.

The dead bird submission protocol has changed as of September 1, 2013. The California Animal Health and Food Safety Laboratory will no longer accept dead bird carcasses. Citizens can still report dead birds to the California Department of

Public Health's (DPH) 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.

