



MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

DISEASE SURVEILLANCE REPORT

February 2009

West Nile Virus Activity

West Nile Virus (WNV) activity is continuing to be detected in Southern California during the winter season. Since January 1, 2009 two sentinel chickens have tested positive for the disease in Los Angeles County along with one dead wild bird in San Diego County. No WNV has been detected in Santa Barbara County in 2009 to date.

Statistics for California WNV activity in 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 District's 3 active sentinel chicken flocks are being sampled once per month during the winter season. All samples were negative for mosquito-borne viruses in 2008. The flocks were most recently sampled on January 20, 2009. The samples were negative for WNV and other mosquito-borne viruses.

The 2009 sentinel chicken season will begin on April 1, 2009. The District is scheduled to pick up the 2009 sentinel chickens in San Jacinto, Calif. the week of March 23, 2009. The District will have 4 and possibly 5 sentinel chicken flocks in 2009.

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 Section at Richmond, California where they are analyzed for antibodies to WNV and other mosquito-borne viruses.

Live Mosquito-Borne Virus Surveillance

The District submitted a grand total of 328 mosquito pools to be analyzed for WNV and other mosquito-borne viruses in 2008. All pools tested negative for mosquito-borne viruses. Mosquito-Borne Virus Surveillance will resume in March 2009, weather permitting.

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, separated by species, 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.

Mosquito Population Surveys

This project began in mid-March 2008 with surveys at 6 locations in the Santa Ynez Valley, 3 locations in the Lompoc Valley, 2 locations in Orcutt, and one location in Guadalupe. Population surveillance has concluded for 2008 and will resume in March 2009, weather permitting.

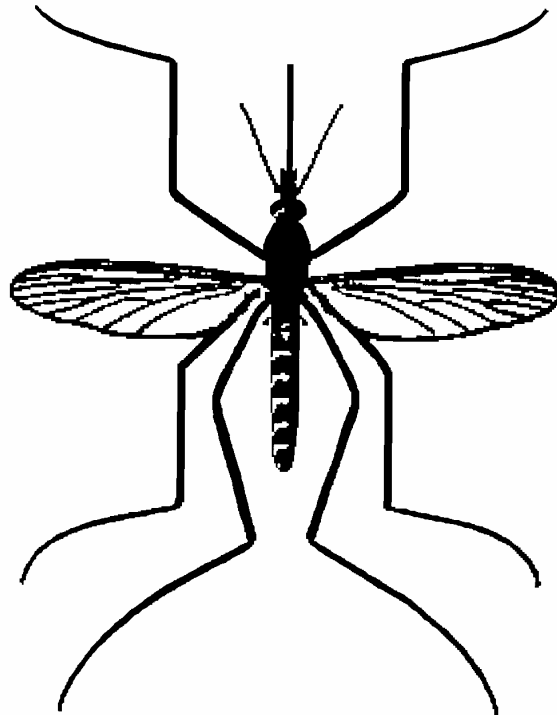
This mosquito trapping technique utilizes the same traps that are used for Live Mosquito-Borne Virus Surveillance. However fewer traps are placed at each location. The primary objective is to determine mosquito

populations instead of collecting a large number of mosquitoes to test for the presence of disease. This is an effort to determine what mosquito species are active, how many, and at what time of year they are active. A number of locations will be sampled repeatedly throughout the spring, summer, and early fall seasons. Emphasis will be placed on North County locations that have not been routinely surveyed in past years.

West Nile Virus Dead Bird Submissions

The California Department of Public Health (DPH) suspended dead bird testing for the winter on November 1, 2008. The Hotline (listed below) will continue to take dead bird reports, but the laboratory will not accept dead birds for testing. Only one dead bird from Santa Barbara County tested positive for WNV in 2008, a Crow collected in the City of Santa Barbara near the Montecito border during August. DPH has announced that dead bird testing will resume on March 16, 2009.

The dead birds are submitted to the California Animal Health and Food Safety Laboratory at Davis, California to be analyzed for the presence of West Nile Virus. The District and other agencies submit dead birds that are found by citizens who report them 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.



SOUTHERN HOUSE MOSQUITO

Culex quinquefasciatus

One of the primary vectors of West Nile Virus and frequently breeds in water-filled containers as well as other man-made breeding sources such as those in the Tea Fire Burn area.