MOSQUITO and VECTOR MANAGEMENT DISTRICT
of Santa Barbara County

DISEASE SURVEILLANCE REPORT

January 2015

West Nile Virus Activity
No West Nile Virus (WNV) activity has been reported in Santa Barbara County or anywhere else in California in 2015 to date.

A total of 798 confirmed human cases (29 fatal) were documented from 31 California counties in 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.

BG-Sentinel Mosquito Traps
The District has taken delivery of 4 BG-Sentinel mosquito traps from BioQuip Products, Inc. of Rancho Dominguez, California. This new tool will enhance the District's ability to detect invasive, non-native *Aedes* mosquito species. The BG-Sentinel trap was developed and is manufactured in Germany specifically to detect the Yellow Fever Mosquito (*Aedes aegypti*) and the Asian Tiger Mosquito (*Aedes albopictus*), though it can be used to collect other mosquito and flying insect pest species as well. These traps use an artificial human scent lure to attract *Aedes aegypti/albopictus*, but can also use numerous other types of lures. BG-Sentinel traps have an electrically powered fan that either plugs into an electrical outlet or can hook up to an automotive or motorcycle battery.

West Nile Virus Dead Bird Submissions
The District submitted one dead bird in January 2015, a Crow from the Goleta Valley. The Crow was negative for WNV. The Dead Bird Hotline has been inactivated for the winter. However the District has made arrangements with the California Department of Public Health to continue testing certain species of birds reported online at www.westnile.ca.gov through the winter. The District will submit Crows, Jays, Magpies, Ravens, Hawks, Sparrows, and Finches when CDPH approves.

The MVCAC Board of Directors has approved funding the West Nile Virus Dead Bird Hotline for 2015. The Hotline will be fully staffed and functional again in spring 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.

Sentinel Chicken Flocks
District staff is bleeding the 4 active chicken flocks once per month for the winter season. The flock at the USFS Ranger Station on Paradise Rd. has been inactivated for winter. All blood samples from all flocks tested negative for WNV and other mosquito-borne viruses in January 2015.

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

The District did not conduct any mosquito trapping surveys in January 2015. Live mosquito-borne virus surveillance will resume in spring 2015.

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 -70ºC 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.

Actual Size

FUNGUS GNATS (Diptera: Mycetophilidae)

In January 2015 the District received numerous complaints from citizens that were mistaking these small flies for mosquitoes. Fungus Gnats lack the mosquitoes' proboscis and have conspicuous spines on their legs. They are often seen running on window panes (mosquitoes can barely walk). Lacking a proboscis, they are unable to bite and cannot transmit disease. The name "Fungus Gnat" comes from the fact that the larvae feed on fungi, often in leaf litter. Recent early rains followed by unseasonably warm weather has probably created perfect breeding conditions that resulted in a spike in their population.