



MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

DISEASE SURVEILLANCE REPORT

February 2017

West Nile Virus Activity

No West Nile Virus (WNV) activity has been detected in Santa Barbara County or anywhere else in California in 2017 to date.

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

The Santa Barbara County Public Health Department has reported a total of nine travel related cases of Zika infection in Santa Barbara County, including two in February 2017. There have been 505 imported cases of Zika virus into California as of February 24, 2017, but no local mosquito transmitted cases. However, a locally acquired case of Zika has recently been reported in Ensenada, Baja California, Mexico. Local mosquito transmitted cases of Zika infections have also been reported in southern Florida and southern Texas. Invasive *Aedes* spp. mosquitoes have now been found in at least 129 cities and communities in 12 California counties. Some California vector control districts already report finding live invasive *Aedes* larval activity in 2017.

Zika virus information can be found at <http://www.cdph.ca.gov/HealthInfo/discond/Pages/Zika.aspx> and at <http://www.cdc.gov/zika/>.

Sentinel Chicken Flocks

The last samples of the 2016 sentinel chicken season were obtained by District personnel the week of February 27-March 3, 2017. Laboratory results on the samples are pending.

For the 2017 season, the District is shifting the size of chicken flocks from 10 birds down to 7, as many other districts have done. The District has ordered 21 new chickens to restart the flock at the U.S. Forest Service Ranger Station on Paradise Road and to replace the two year old chickens at the Carpinteria and Solvang wastewater treatment plants. The new chickens will be picked up at the Demler Egg Ranch in San Jacinto, California on March 30, 2017. The chickens at the Goleta Sanitary District and the Mission Hills Community Services District will serve for another year. The 2017 sentinel chicken sampling season will begin in April 2017.

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 encephalitis viruses.

West Nile Virus Dead Bird Submissions

The District did not submit any dead birds in February 2017.

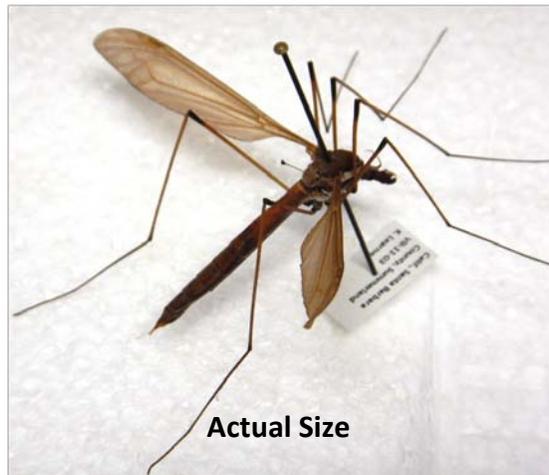
The West Nile Virus Dead Bird Hotline is closed for the winter. However, the public can still report dead birds online at www.westnile.ca.gov. The District has made arrangements with CDPH to continue testing approved dead birds through the winter. The hotline will resume full operations in spring 2017.

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 (DART) laboratory on the U.C. Davis campus where the samples are analyzed for West Nile Virus.

Live Mosquito-Borne Virus Surveillance

The District did not conduct any mosquito trapping surveys in February 2017. Cold, wet weather is not conducive to mosquito trapping and the District technicians are very busy controlling Floodwater mosquitoes in the recently flooded seasonal wetlands. Live mosquito-borne virus surveillance will resume in March 2017, weather permitting.

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 Davis Arbovirus Research and Training (DART) laboratory on the U.C. Davis campus where they are analyzed for the presence of live mosquito-borne viruses including WNV.



Giant Crane Fly (*Holorusia hespera*)
Diptera: Tipulidae

This is one of the world's largest species of true flies. Adults are fairly common near streams in the springtime and early summer. The larvae are aquatic or semi-aquatic, living in streams or shore vegetation. Crane flies cannot bite, but adults are sometimes mistaken for "giant mosquitoes." Contrary to another popular urban legend, Crane flies do not eat mosquitoes. The specimen illustrated here was collected at the District's Summerland facility in July 2003.