



MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

January 2022

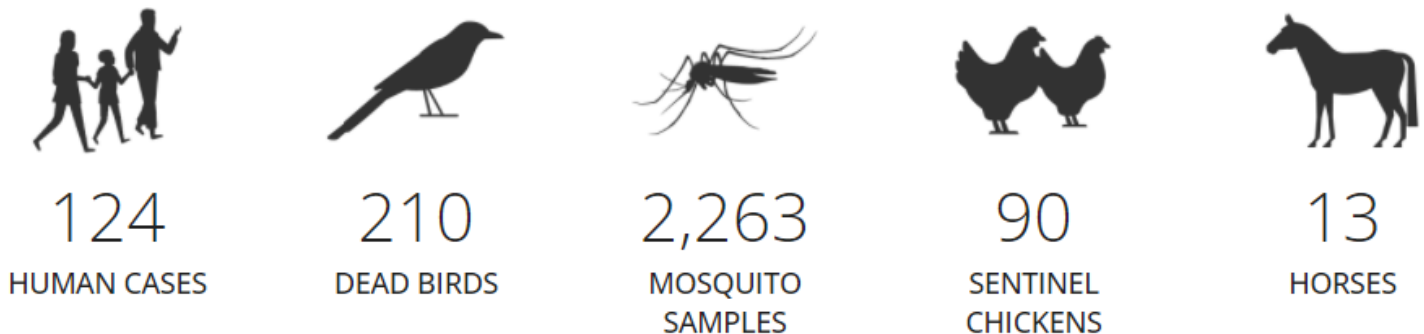
Vector-borne Disease Surveillance

Mosquito trapping will resume in March. Mosquitoes are unlikely to be active when overnight temperatures are lower than 50°F.

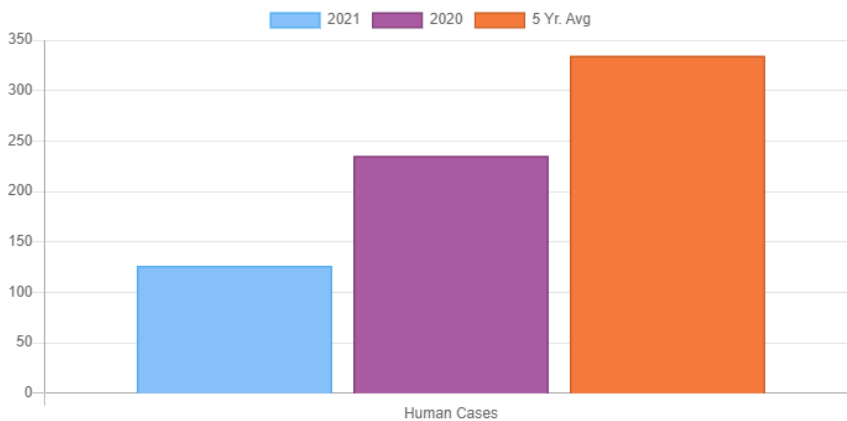
January 31, 2022, Vector Biologist Technician K. Schultz attempted to collect ticks using a drag cloth for one half hour at the Carpinteria Bluffs. No ticks were found. When ticks are found, collection data are entered into the California Vector Borne Disease Surveillance Gateway (CalSurv) database.

California Arbovirus Detection

Final California 2021 Totals:



West Nile virus in California



Eight human cases were added to the final numbers of 2021 West Nile virus detections in California. The 124 cases occurred in 28 counties. There were 13 human fatalities from WNV in California in 2021. California ranked third in the nation after Colorado and Arizona for number of human cases. Arizona, mainly in the Phoenix area, had an outbreak of 1,645 human cases and 112 deaths in 2021.

In California in 2021, 46 mosquito pools in eight counties tested positive for St. Louis encephalitis virus. Three human cases of St. Louis encephalitis (SLE) were reported (Fresno, Marin, and Stanislaus Counties). In 2020, five cases were detected.

Arbovirus Activity in Santa Barbara County

One Santa Barbara resident tested positive for West Nile virus in November 2021, but, according to the California Dept. of Public Health, the individual was most likely infected during a trip to the Sacramento area. Another case of human infection was reported in January; the infection likely was acquired on a visit to Texas.

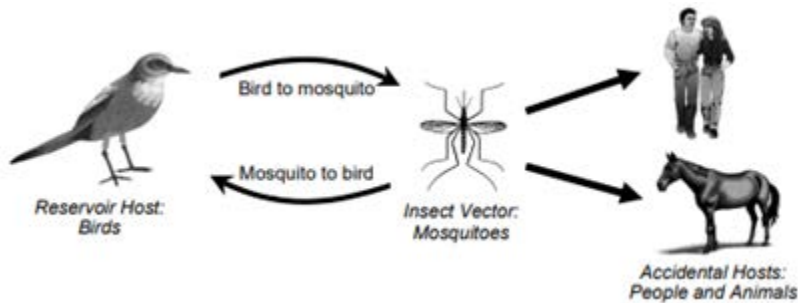
No dead birds were reported in Santa Barbara County in January. In 2021, 36 dead birds were reported, and 10 were tested for WNV; all tested negative. In 2021, the District submitted 43 mosquito pools from San Luis Obispo County (10 sites) and 109 pools from Santa Barbara County (21 sites); all yielded negative results for WNV, SLE and Western Equine Encephalitis.

The District currently maintains four sentinel chicken flocks in Santa Barbara County located at the Goleta Sanitary District, Mission Hills Community Services District, the Solvang City Wastewater Treatment Plant, and the U.S. Forest Service Fire Station in Carpinteria. Chickens are tested for WNV, SLE, and WEE once a month November through March. Blood samples were collected the week of January 3rd; all samples tested negative. The program will be discontinued in March 2022.

Zika Virus and Invasive *Aedes* Mosquito Update

No *Aedes aegypti* or other invasive *Aedes* species were detected in Santa Barbara County last month.

Aedes aegypti mosquitoes are present in 22 California counties. One person tested positive for Zika virus in California in 2021; the infection was travel-associated (acquired outside of California). There were 10 cases of dengue fever and three cases of chikungunya reported from California; all were travel-associated.



West Nile Fever

Since West Nile virus was first detected in California in 2003, there have been at least 7,383 human cases, 333 of them fatal. It is estimated that 80% of people infected with WNV are asymptomatic, 20% experience fever, headache, body ache, nausea, and/or rash and 1% go on to develop neuroinvasive infection. Inflammation of the brain, also known as encephalitis, can lead to numbness, confusion, paralysis, coma, or death. Neurological problems often persist long after recovery from a neuroinvasive infection. People over the age of 60 and those who are immunocompromised are at greatest risk of developing severe disease.

People are infected when a mosquito feeds on an infected bird and then feeds on a human. Humans and horses are “dead end hosts,” meaning a mosquito cannot be infected from biting them. People can infect other people only by blood transfusion, organ transplant, or breastfeeding. Symptoms, if any, start 3 to 14 days after the unfortunate mosquito bite. Three mosquito species that are common in Santa Barbara County, *Culex tarsalis*, *Culex quinquefasciatus*, and *Culex erythrothorax*, are very competent at vectoring WNV. *Culex* mosquitoes tend to bite around sunrise and sunset in a wide variety of environments.

WNV in Santa Barbara County 2005 to 2021

	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
# WNV + tests	5	35	26	11