



MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

December 2023

Santa Barbara County Vector-borne Disease Surveillance

No trapping was conducted in December due to a combination of low nighttime temperatures, a lack of complaints received from residents, holidays, and employee leave. No mosquitoes, ticks, or dead birds were collected in December. There was no West Nile virus (WNV) activity in the County in 2023. St. Louis encephalitis virus (SLE) and Western equine encephalitis virus have never been documented in the county.

California Vector-borne Disease Surveillance

For the year 2023, WNV was detected in 41 counties. There were 360 human cases, and 74% of cases (266) were neuro-invasive. Eleven human cases were fatal. Sixteen human cases of SLE infection were reported in CA in 2023; 728 SLE-positive mosquito pools were reported in 15 counties. On October 13, the WNV dead bird program switched to only online reporting and limited testing until April. The number of WNV positive mosquito samples, sentinel chickens, and horses did not change in December. Both neighboring Ventura and San Luis Obispo counties had detections of WNV in 2023. Ventura County had one human case and four positive dead birds. SLO had two humans, one dead bird, and two horses that tested positive.

California WNV activity as of December 1, 2023



343

HUMAN CASES



849

DEAD BIRDS



4,512

MOSQUITO
SAMPLES



187

SENTINEL
CHICKENS



31

HORSES



California WNV activity as of January 2, 2023



360

HUMAN CASES



854

DEAD BIRDS



4,512

MOSQUITO
SAMPLES



187

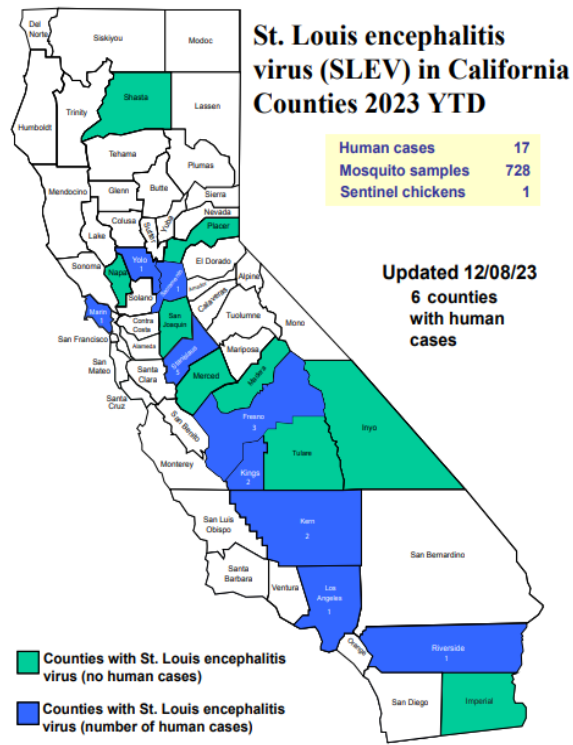
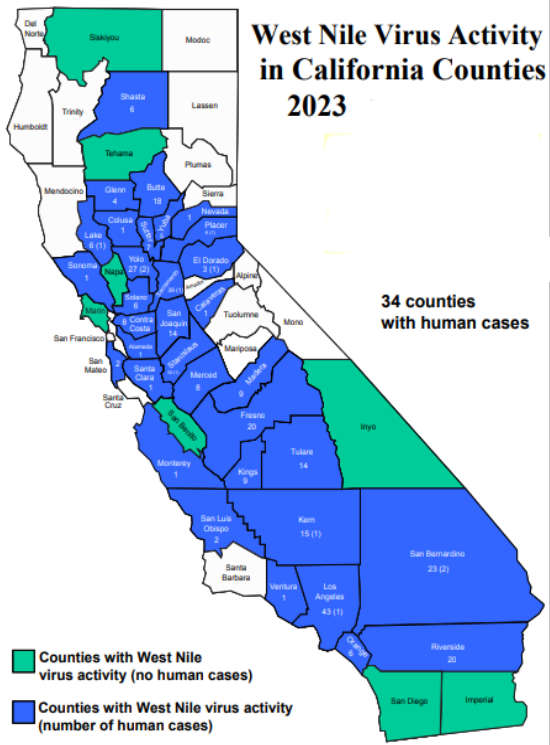
SENTINEL
CHICKENS



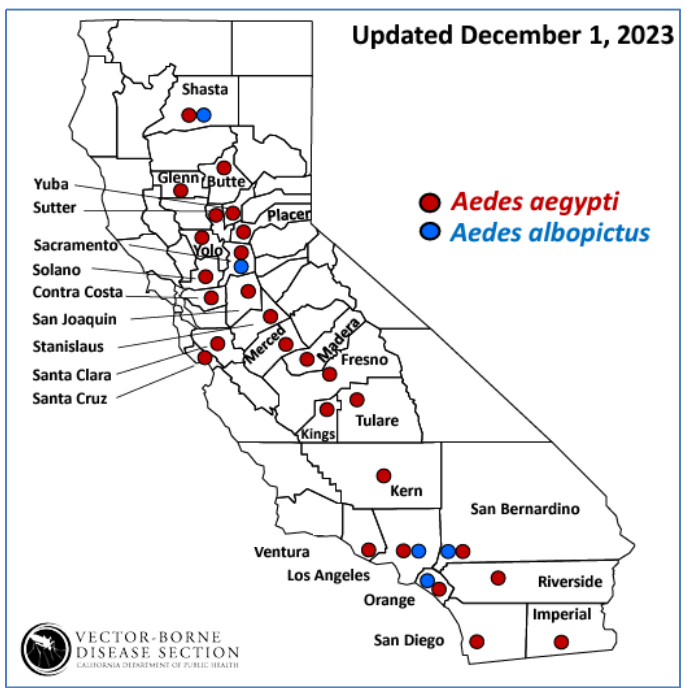
31

HORSES

<https://westnile.ca.gov>



<https://westnile.ca.gov/>



Invasive Aedes Mosquito Update

No invasive *Aedes* species have been detected in Santa Barbara County since May 2021. *Aedes aegypti* is found in 27 California counties, and *Aedes albopictus* is found in five.

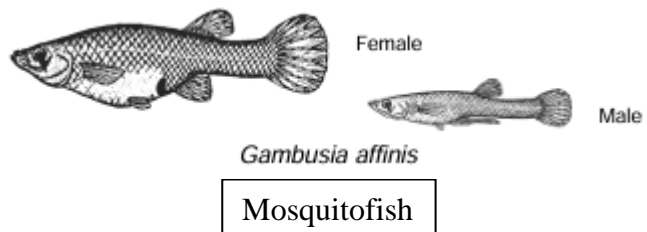
Two human cases of locally transmitted dengue virus were discovered in the Los Angeles area in October. Trapping and testing around these finds have not revealed any dengue-positive mosquitoes. Non-native *Aedes* mosquitoes, capable of vectoring dengue, Zika, chikungunya, and yellow fever are common in the LA area. In 2023, there were 105 travel-related human dengue cases in California; Santa Barbara County Public Health has reported three travel-related human cases.

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Aedes-aegypti-and-Aedes-albopictus-mosquitoes.aspx>



Mosquitoes in Neglected Swimming Pools and Hot Tubs

Swimming pools neglected due to a natural disaster, cost, vacancy, or otherwise can become prime mosquito-breeding habitats. Clean pool water is maintained by filtration and chlorination. Many people think that chlorine will kill any mosquito larvae in the water, but it is actually the pool filtration system that removes mosquito eggs and larvae. Oxygen is taken directly from the air through a larva's breathing tube, a.k.a. the siphon, so chlorinated water only has a small effect on the outsides of its body. The chlorination will, however, kill most of the microbes and algae in the water that larvae need to eat in order to develop. Chlorine will also kill mosquito fish (*Gambusia affinis*) that are often placed in a neglected pool to control mosquitoes, since the fish obtain oxygen from the water passing over their gills. Over time, however, chlorine in the water can gas off and the pool may fill with unchlorinated rainwater. Residents can report a swimming pool suspected of harboring mosquitoes to the MVM District. The owner will be contacted to set-up an inspection and to find the best way to prevent mosquitoes from emerging. The owner will have the option to drain the pool, restore filtration, add mosquito fish, or have the water treated with larvicide. If the owner is not cooperative, an abatement notice can be served in accordance with the California Health and Safety Code, Division 3: Pest Abatement, Chapter 1: Mosquito Abatement and Vector Control Districts, Article 5, § 2061.



Mosquito larva with its siphon sticking through the water surface.