



MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

October 2023

Santa Barbara County Vector-borne Disease Surveillance

Location	Date	Number of Mosquitoes	Type of Trap	# of Traps	Mosquitoes per Trap Night	Pools Submitted	WSW Virus Test Result
UCSB/SBAir	10/11-10/12	12	Gravid	2	6	1	Negative
SBCC Wake Center, 93111	10/11-10/12	1	Gravid	1	1	0	--
UCSB/SBAir	10/26-10/27	381	EVS	11	34.6	8	Negative
Crescent Dr, 93105	10/3-10/26	2	BGS2	2	0.1	0	--
Chino St., 93101	10/3-10/26	11	BGS2	2	0.7	0	--
UCSB Fire Station	10/3-10/26	50	BGS2 w/ CO ₂	1	2.2	0	--
MVMD, Summerland	10/3-10/31	3	BGS2	1	0.1	0	--

BGS2=Biogents Sentinel 2 BGP=Biogents Pro EVS=encephalitis surveillance trap (CO₂)

WSW=West Nile Virus, St. Louis Encephalitis Virus, AND Western Equine Encephalitis

*Color indicates the virus-transmitting ability of some or all of the mosquito species caught in the traps:

Purple = high (example: *Aedes aegypti*, *Culex tarsalis*); Aqua = moderate; Tan = low. For specific trap collection data, please email a request to: info@mvmdistrict.org

One dead crow was reported and swabbed for WNV testing in Santa Barbara County in October; results came back negative. To date, there has been no WNV activity in the County in 2023. St. Louis encephalitis virus and Western equine encephalitis virus have never been documented.

California and National Disease Surveillance

As of October 27, WNV has been detected in 41 counties. There have been 286 human cases in 32 counties, and 73% of cases were neuro-invasive. Ten human cases were fatal. Eight human cases of Saint Louis encephalitis virus have been reported in CA in 2023; 727 SLE-positive mosquito pools have been reported in 15 counties. At this time last year, 151 SLEV positive mosquito pools had been reported from 9 counties. On October 13, the WNV dead bird program switched to only online reporting and limited testing until April. Our neighboring counties of Ventura and San Luis Obispo have had detections of WNV. Ventura County has had one human case and four positive dead birds. SLO has had two humans, one dead bird, and two horses test positive.

Local transmission of dengue (serotype 1) in Pasadena was discovered on October 20; 1.5 weeks later, another case popped-up in Long Beach. 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 2022, there were 128 travel-related human dengue cases in California. Italy and France are also experiencing unusual dengue outbreaks where the Asian tiger mosquito (*Aedes albopictus*) has spread northward.

The number of locally-acquired malaria cases in the US in 2023 has increased to 10 after cases in Maryland and Arkansas were investigated.

The CDPH Vector-Borne Disease Section 2022 Report is now available at

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/VBDSAnnualReports.aspx>

Invasive *Aedes* Mosquito Update

No invasive *Aedes* species have been detected in Santa Barbara County since May 2021. Once again, only *Culex* and *Culiseta* mosquito larvae were present in twelve (12) In2Care stations which target *Aedes aegypti*. Human-scent lure and CO₂ baited traps have also failed to catch any invasive *Aedes* species and the District has not received any complaints of aggressively-biting mosquitoes. *Aedes aegypti* is found in 25 California counties, and *Aedes albopictus* is found in five.



<https://zanzare.ipla.org/index.php/en/the-mosquitoes/mosquitoes-and-health/dengue>

Dengue Virus

Symptoms of Dengue Fever



Rash.



Intense pain behind your eyes.



Nausea or vomiting.



Muscle, bone and joint pain.

Warning Signs of Severe Dengue Fever



Abdominal pain.



Frequent vomiting.



Throwing up blood or blood in your poop.



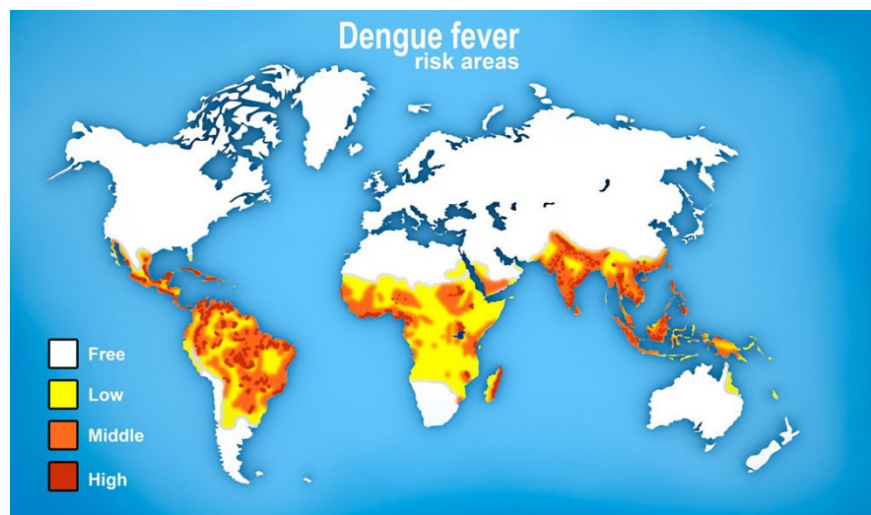
Nose bleeds or bleeding gums.



Extreme tiredness, restlessness or irritability.

Cleveland Clinic

Dengue fever is caused by any of the four serotypes of the virus, called DEN-1, DEN-2, DEN-3, and DEN-4. It is a flavivirus, like West Nile virus and Zika virus. Dengue virus is transmitted from human to human (or non-human primate) through the bites of the mosquito species *Aedes aegypti* and *Aedes albopictus*. Adult mosquitoes can also pass the virus to their offspring, which is called vertical transmission or transovarial infection. The incubation period is from 2 to 15 days, and the majority of cases are asymptomatic.



<https://www.healthdirect.gov.au/dengue-fever>

See also: April 2023 Disease Surveillance Report on risk of dengue virus in Santa Barbara County (prepared for the May 2023 MVMD Board Meeting) <https://www.mvmdistrict.org/disease-reports>