



**MOSQUITO and VECTOR MANAGEMENT DISTRICT
of SANTA BARBARA COUNTY**

DISEASE SURVEILLANCE REPORT

June 2023

Wet weather and the prioritization of mosquito larvae control prevented more trapping in June. A week was also lost due to jury duty. Several insect bite complaints were found to be triggered by black flies, which develop in flowing water.

Vector-borne Disease Surveillance

Location	Date	Mosquitoes	Black Flies	Type of Trap	# of Traps	Mosquitoes per Trap Night	Pools	WSW Virus Test Result
Cold Spring Tavern, Stagecoach Rd.	6/27-6/28	3	65	EVS	3	1	0	---
Rancho Oso, Paradise Rd.	6/27-6/28	71	350	EVS	3	23.7	0	---
Santa Ynez County Park	6/27-6/28	23	7	EVS	3	7.7	1	pending
Alamo Pintado Creek, Los Olivos	6/27-6/28	21	4	EVS	3	7	1	pending
Montecito Creek at Olive Mill Rd	6/29-6/30	3	20	EVS	4	0.75	2	pending
Sycamore Canyon Rd., Montecito	6/29/2023	1	24	EVS	3	0.3	0	---
Cold Springs Rd., Montecito	6/29-6/30	5	120	EVS	5	1	0	---
Chino St., 93101	6/1-6/30	0	0	BGS2	1	0	0	---
Crescent Ave., 93105	6/1-6/30	1	0	BGS2	1	0.03	0	---
Bailard Ave., Carpinteria	6/1-6/30	0	0	BGS2	1	0	0	---
MVMD, Summerland	6/1-6/30	1	0	BGS2	1	0.03	0	---
UCSB	6/1-6/30	0	0	BGS2	1	0	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

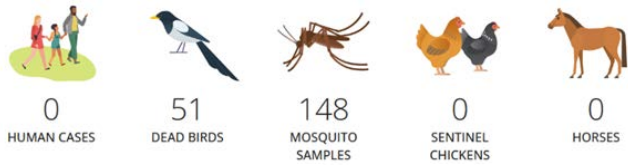
*Color indicates the virus-transmitting ability of some or all of the mosquito species caught in the traps:

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

Two dead American crows were reported in Santa Barbara County in June, and both tested negative for West Nile virus.

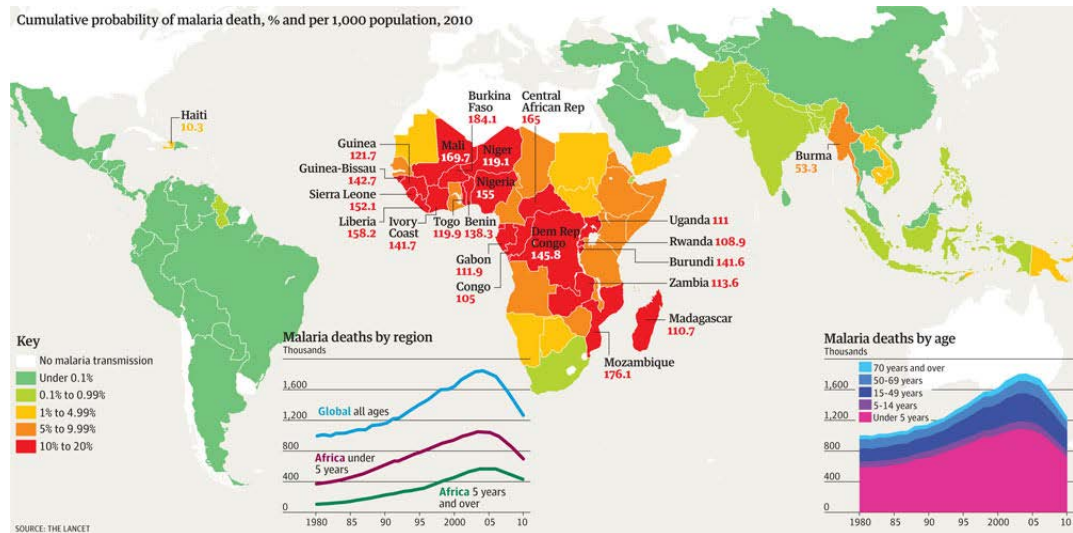
California Disease Surveillance

Fourteen counties have recorded 148 mosquito pools and 51 dead birds that have tested positive for West Nile virus. Twenty-four mosquito pools have tested positive for St. Louis encephalitis virus in four California counties.



Invasive *Aedes* Mosquito and Zika Virus Update

No invasive *Aedes* species have been detected in Santa Barbara County, to date, in 2023. No larvae were present in any of the six *Aedes aegypti*-targeting In2Care stations. *Aedes aegypti* are found in 25 California counties, and *Aedes albopictus* is found in five.



Malaria in the USA

There have been five reported cases of locally-acquired malaria in the United States within the last two months. While there are about 2,000 travel-related cases in the U.S. each year, the last outbreak of malaria transmitted by a local mosquito bite was in 2003. People who spend a lot of time outdoors are most at risk, and audiences gathering outside to watch Fourth of July fireworks are a concern.

Malaria is an illness caused by one of several protozoan parasites in the genus *Plasmodium* that is transmitted from human to human by mosquitoes in the genus *Anopheles*. *Anopheles* mosquitoes are present in every U.S. state and territory except Hawaii and Guam. Santa Barbara County has three possible malaria vector species: *An. hermsi*, *An. occidentalis*, and *An. punctipennis*. When people visiting or returning to the U.S. are infected with malaria, a local mosquito can take a blood meal and transmit parasites to the next person it bites. There is also a small chance that an infected mosquito could hitch a ride into the U.S. on an airplane, and infection could happen via blood transfusion. Travelers going to a malaria endemic region can take chemoprophylactic drugs to prevent infection. One vaccine is available to children living in malarious regions, and an mRNA vaccine is ready for clinical trials.

- 1600-1951:** malaria is endemic in many regions of the U.S.
- 1988-1989:** San Diego, CA outbreak of at least 57 cases of locally transmitted malaria
- 1994:** the last Texas cases (3)
- 2001:** 1 case in New York
- 2002:** 3 cases in Virginia, 1 in Michigan
- 2003:** 8 cases in Palm Beach, FL
- May-June 2023:** 5 cases of locally transmitted malaria in FL (4 cases) and the gulf coast of TX (1 case)



An *Anopheles* mosquito taking a blood meal. BioMed Central