



MOSQUITO and VECTOR MANAGEMENT DISTRICT
of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

April 2023

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 Bluffs	4/6-4/7	763	EVS	12	63.6	3	Negative
UCSB/SBAIR Bluffs	4/6-4/7	5	GRAVID	3	1.7	1	Negative
Bird Refuge, SB	4/10-4/11	3	EVS	6	0.5	0	--
Crescent Ave, SB County, 93105	4/10-4/11	6	EVS+BG Lure	8	0.75	0	--
Crescent Ave, SB County, 93105	4/11-4/13	12	Gravid	3	2	3	Negative
UCSB/SBAIR Bluffs	4/20-4/21	377	BGP	3	125.67	0	--
UCSB/SBAIR Bluffs	4/20-4/21	472	EVS	3	157.3	6	Negative
Lake Los Carneros, Goleta	4/20-4/21	221	EVS	7	31.6	3	Negative
More Mesa, Goleta Valley	4/20-4/21	686	EVS	7	98	1	Negative
More Mesa, Goleta Valley	4/19-4/21	3	Gravid	2	0.75	0	---
Olive Mill Rd, Montecito	4/26-4/29	1	Gravid	2	0.25	1	Negative
Paradise Rd., San Marcos Pass	4/27-4/18	23	Gravid	2	11.5	3	Negative
Paradise Rd., San Marcos Pass	4/27-4/28	1167	EVS	15	77.8	1	Negative
MVMD, Summerland	4/2023	0	BGS2	1	0	0	--

BGS2=Biogents Sentinel 2 BGP=Biogents Pro EVS=enkephalitis surveillance trap (CO²)
WSW=WNV, SLEV, AND WEE

*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*) Blue = moderate Tan = low. For specific trap collection data, please email a request to: info@mvmdistrict.org.

A tricolored blackbird and a sparrow found dead in Orcutt tested negative for West Nile virus.

Five sites were surveyed for ticks by flagging* last month.

1. 4/4/2023 **Toro Canyon Trail**, Carpinteria valley– Western black-legged tick, *Ixodes pacificus*: 3 male, 2 female; Pacific coast tick, *Dermacentor occidentalis*: 11 male, 7 female.
2. 4/12/2023 **SB Airport, Area I** – 0 ticks
3. 4/25/2023 **Rocky Nook Park, SB**— 0 ticks
4. 4/25/2023 **SB Natural History Museum**,-- dog tick, *Dermacentor similis*: 1 male
5. 4/28/2023 **Snyder Trail, Paradise Rd.**—*D. occidentalis* : 2 male, 3 female

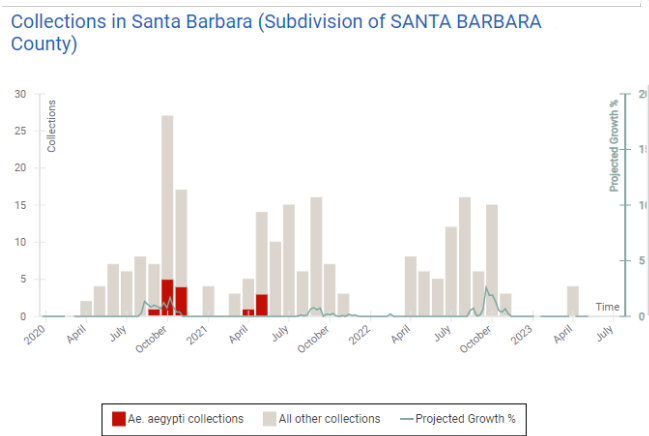
* Visit <https://www.mvmdistrict.org/tick-talk> for an explanation of tick flagging and more information about ticks.

California Disease Surveillance

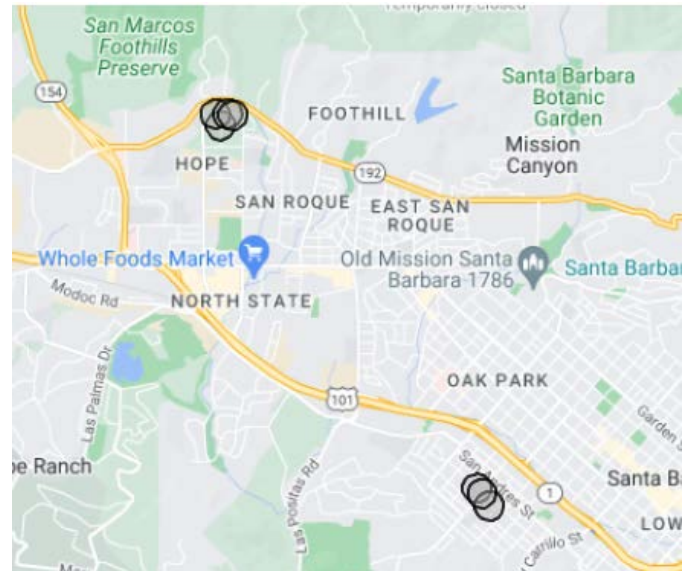
The CDPH has begun emailing their weekly “Arbovirus Bulletin” for this year. One dead bird from Santa Clara County tested positive for WNV. Two WNV-positive mosquito samples had previously been reported from Alameda County and Los Angeles County. St. Louis encephalitis virus has not been reported in 2023 in California.

Invasive *Aedes* Mosquito and Zika Virus Update

No invasive *Aedes* species have been detected in Santa Barbara County, to date, in 2023.



Despite using five types of mosquito traps for surveillance, *Aedes aegypti* was last detected in Santa Barbara County in May of 2021.



The circles outline a radius of 150 meters around each site where *Aedes aegypti* was detected. Research has shown that an *Aedes aegypti* mosquito rarely disperses more than 150 meters from its hatching site.

Risk of Dengue Virus in Santa Barbara County

Dengue fever is caused by four serotypes of the virus, called DEN-1, DEN-2, DEN-3, and DEN-4. After recovering from infection of one serotype, people can still be infected with any of the other three. While the first infection is usually mild, the second infection is more likely to lead to severe illness or death. For this reason, a new resident recently requested information about the risk of dengue virus in Santa Barbara County.

Fortunately, human cases of dengue and the non-native mosquitoes that can transmit it are rare in Santa Barbara County. At the end of 2020, we first discovered one of these mosquitoes, *Aedes aegypti*, in two locations (see map above). Since 2020, the state health department has reported three travel-related human cases of dengue fever, whose locations did not overlap with the mosquito’s known range.

In the Phoenix, Arizona area, there was strong evidence for locally acquired dengue cases at the end of 2022. An infected traveler returned to an area where the vector mosquitoes occurred; there were then two known cases in the area in people who had not traveled. Mosquitoes capable of transmitting dengue virus, chikungunya, and Zika virus are present in 24 California counties (see map of CA below). In 2021 in CA, 19,711 mosquitoes tested negative for those viruses.

There is a vaccine for children 9-16 years of age, who live in an area where dengue virus is common, and have previously tested positive for dengue virus. There is no vaccine approved for travelers.

**CDPH Monthly Update on Number of Dengue Infections in California
April 1, 2023**

The following table provides the number of travel-associated infections with dengue virus in California residents from 2016 to 2023. Travel-associated infections include people exposed through travel to an area affected by dengue. All dengue cases reported in California have been associated with travel; there have been zero locally acquired infections reported in California.

**Travel-associated dengue virus infections in California, 2016-2023
(as of April 1, 2023)**

County	2016	2017	2018	2019	2020	2021	2022	2023
Alameda Total	16	19	7	23	5	2	11	0
(City of Berkeley)	(4)	(1)	(0)	(0)	(1)	(0)	(4)	(0)
Butte	0	1	0	2	0	0	0	0
Contra Costa	10	4	6	16	1	0	3	1
El Dorado	1	2	0	1	1	0	0	0
Fresno	6	2	0	2	1	1	2	0
Humboldt	1	1	0	0	1	0	0	0
Kern	0	0	3	3	1	0	2	0
Lake	1	0	0	0	0	0	0	0
Los Angeles Total	52	20	2	55	24	5	16	0
(City of Long Beach)	(0)	(1)	(2)	(2)	(2)	(0)	(1)	(0)
(City of Pasadena)	(3)	(0)	(1)	(2)	(0)	(0)	(0)	(0)
Madera	0	0	0	1	0	0	0	0
Marin	4	2	0	3	1	0	0	0
Mendocino	1	0	0	0	0	0	0	0
Merced	0	0	0	1	1	0	0	0
Monterey	1	3	0	1	0	0	0	0
Napa	0	0	0	0	2	0	1	0

County	2016	2017	2018	2019	2020	2021	2022	2023
Nevada	0	1	0	0	0	0	0	0
Orange	12	10	12	20	8	5	6	0
Placer	2	1	1	3	0	0	1	0
Riverside	3	1	1	5	3	0	4	1
Sacramento	3	6	1	10	1	3	7	0
San Benito	0	0	1	0	0	0	0	0
San Bernardino	7	3	0	6	3	0	1	0
San Diego	23	8	9	26	4	3	0	0
San Francisco	4	4	3	14	1	0	6	0
San Joaquin	3	2	0	2	2	2	1	0
San Luis Obispo	1	1	1	5	0	0	1	0
San Mateo	8	3	7	8	4	1	7	1
Santa Barbara	5	1	0	0	0	1	2	0
Santa Clara	20	24	15	41	7	8	17	2
Santa Cruz	1	2	1	1	1	0	0	0
Shasta	0	0	1	0	0	0	1	0
Solano	3	4	2	2	0	2	2	0
Sonoma	2	1	0	4	4	0	0	0
Stanislaus	4	2	2	0	2	0	0	0
Sutter	0	0	0	1	3	0	0	0
Tehama	1	0	0	0	0	0	0	0
Tulare	1	0	1	0	1	0	0	0
Tuolumne	1	0	1	1	0	0	0	0
Ventura	3	3	2	6	3	0	1	0
Yolo	1	1	1	4	1	0	4	0
Yuba	0	0	1	0	0	0	0	0
Total	201	132	107	267	86	33	96	5



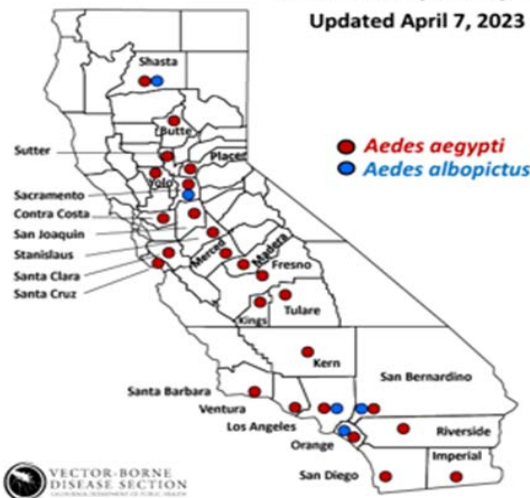
Aedes aegypti



Aedes albopictus

**Aedes aegypti and Aedes albopictus Mosquitoes
in California by County/City**

Updated April 7, 2023



Counties with

***Aedes aegypti* only:**

Butte, Contra Costa, Fresno, Imperial, Kern, Kings, Madera, Merced, Placer, Riverside, San Diego, San Joaquin, Santa Barbara, Santa Clara, Santa Cruz, Stanislaus, Sutter, Tulare, Ventura, Yolo

Both *Aedes aegypti* and

***Aedes albopictus*:**

Los Angeles, Orange, San Bernardino, Sacramento, Shasta