MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

October 2024

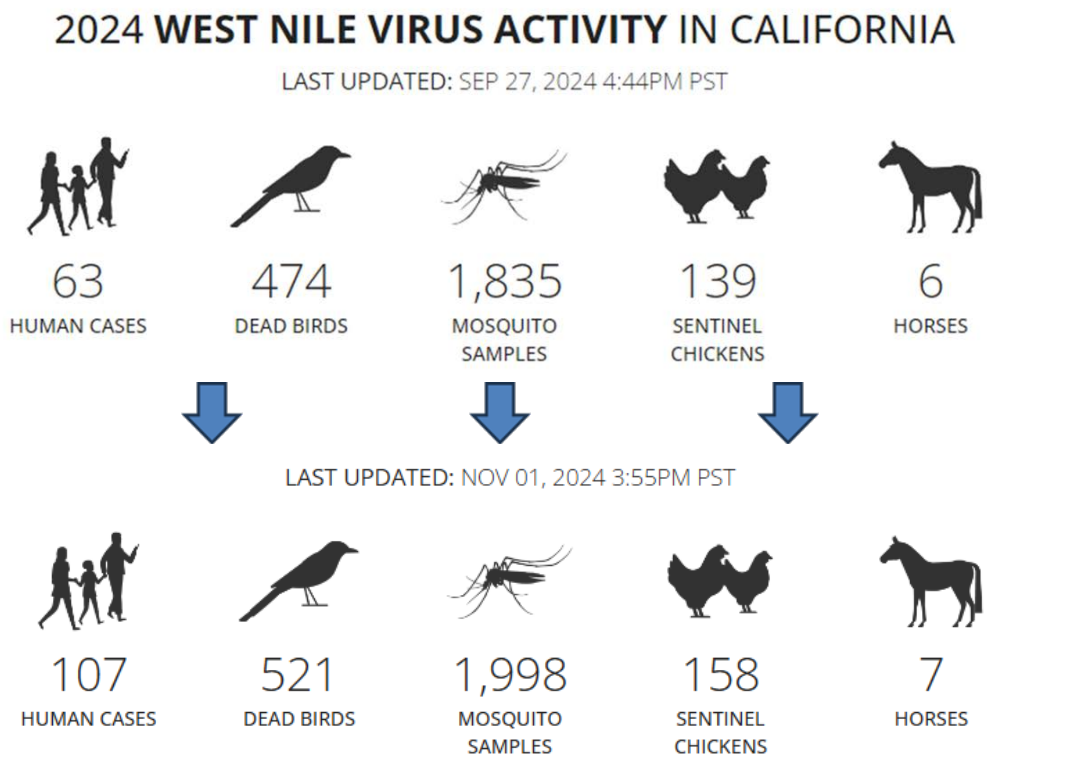
Santa Barbara County Vector-borne Disease Surveillance*

Location	Date	Number of Mosquitoes	Type of Trap**	# of Traps	Mosquitoes per Trap Night	Pools Submitted	WSW*** Virus Test Result
Lake Los Carneros	10/1-10/2	29	EVS	8	3.6	1	Negative
Lake Los Carneros	9/30-10/2	23	Gravid	2	5.75	2	Negative
Andree Clark Bird Refuge/Santa Barbara Zoo	10/9-10/11	24	Gravid	1	12	1	Negative
Crescent Drive, 93110#	10/10-10/11	0	EVS	5	0	0	--
Chino x Islay, 93101	10/10-10/11	2	EVS	5	0.4	1	Negative
Shoreline/More Mesa, 93110	10/17-10/18	23	EVS	9	2.6	2	Pending
Shoreline/More Mesa, 93110	10/16-10/18	93	Gravid	2	23.3	3	Pending
Montecito Creek at Fish Ladder, 93108	10/16-10/18	42	Gravid	1	21	2	Pending
Andree Clark Bird Refuge/Santa Barbara Zoo	10/23-10/25	25	Gravid	1	24	2	Pending
UCSB/SBAir Bluffs	10/23-10/25	34	Gravid	2	8.5	1	Pending
UCSB/SBAir Bluffs	10/24-10/25	14	EVS	12	1.2	2	Pending
UCSB/SBAir Bluffs	9/27-10/21	4	BGS2	1	0.1	0	--
Chino St, Santa Barbara 93101##	9/27-10/11	0	BGS2	1	0	0	--
Crescent Dr., 93105#	10/8-10/25	0	BGS2	1	0	0	--

** BGS2=Biogents Sentinel 2; BGP=Biogents Pro; EVS=encephalitis surveillance trap (CO^2 baited)
*** 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 .
Area where *Aedes aegypti* was collected in 2020-2021
Are where *Aedes aegypti* was collected in 2020

No dead birds were reported to the state hotline in October. There have been no detections of West Nile virus (WNV) in the County in 2024. St. Louis encephalitis virus (SLE) and Western equine encephalitis virus (WEE) have never been documented in the County.

California Vector-borne Disease Surveillance
Thirty-two counties have reported samples positive for West Nile virus in 2024. Of the 107 human cases of WNV, 81 were neuroinvasive, and 11 were fatal. There were an additional 16 asymptomatic blood donors. More than half of the 521 WNV-positive dead birds in California were collected in Santa Clara County. Thirty-four mosquito pools from five counties have tested positive for SLE; at this time last year there were 728 positive SLE samples across 15 counties. There have been no detections of WEE.



https://westnile.ca.gov

Update on Invasive *Aedes* Mosquito in California
No invasive *Aedes* species have been detected in Santa Barbara County since May 2021. Santa Barbara, along with four other coastal Counties, have been removed from the invasive *Aedes* map because more than two years has passed since the last collection. *Aedes aegypti* is found in 24 California counties, and *Aedes albopictus* is found in five.

There have now been 13 locally transmitted cases of dengue virus in Los Angeles County (11) and San Diego County (2) in 2024. Non-native *Aedes* mosquitoes, capable of vectoring dengue, Zika, chikungunya, and yellow fever are common in the LA area. As of November 1, 2024, there have been 344 travel-related human dengue cases in California; there have been 16 travel-related cases of chikungunya virus and three travel-related cases of Zika virus. This year in California, 1,362 mosquito pools have tested negative for DENV, CHIKV, and ZIKA. There have been four cases of travel-related dengue in Santa Barbara County this year.


Aedes aegypti

Aedes albopictus

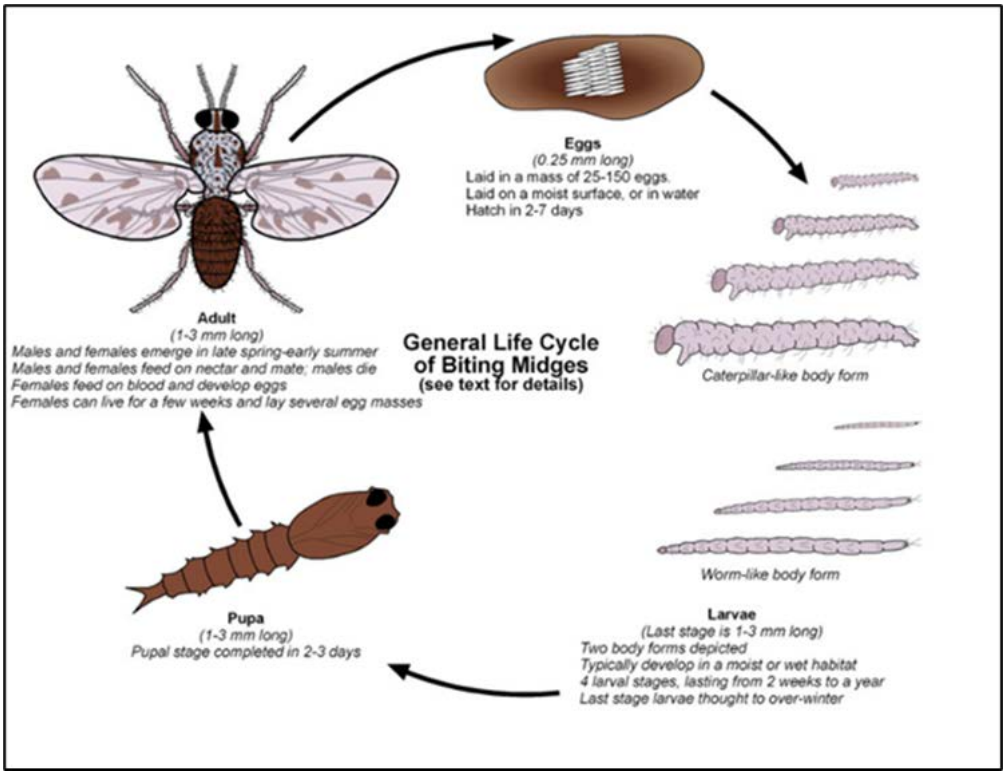
Photo Alan R Walker

No-see-ums
Culicoides

Culicoides is a genus of about 1000 species of biting midges commonly called no-see-ums due to their small size (although, at 1-3mm, they are visible). Their spotted wings are their most obvious identifying feature.

Like mosquitoes, biting midges are attracted to the carbon dioxide emitted from the District's dry ice-baited traps. Many have been caught in our traps at Lake Los Carneros, UCSB, Paradise Road, Evergreen Park, Santa Monica Creek, and Lopez Lake (SLO County).

Female no-see-ums require a blood meal for egg development, while both males and females feed on flower nectar. The eggs are laid in moist soil; given the vast possible larval habitat, control by larvicide would be very challenging. *Culicoides* midges are vectors of the livestock disease bluetongue and of epizootic hemorrhagic disease (EHD), which affects deer. Recently oropouche virus, normally found in South America, was found in the U.S., so the American Mosquito Control Association (AMCA) produced a webinar about these tiny flies that can transmit the disease.



Culicoides life cycle. Image from Purdue University