MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

August 2025

Santa Barbara County Vector-borne Disease Surveillance

The CDPH has notified the District that a horse in the Buellton area has tested positive for West Nile virus (WNV). The horse was not up to date with its yearly booster vaccinations. Fortunately, it is alive and recovering from the illness. The District's next steps will be to set gravid and EVS traps in the vicinity of where the horse is stabled and submit any mosquitoes caught in the traps for testing.

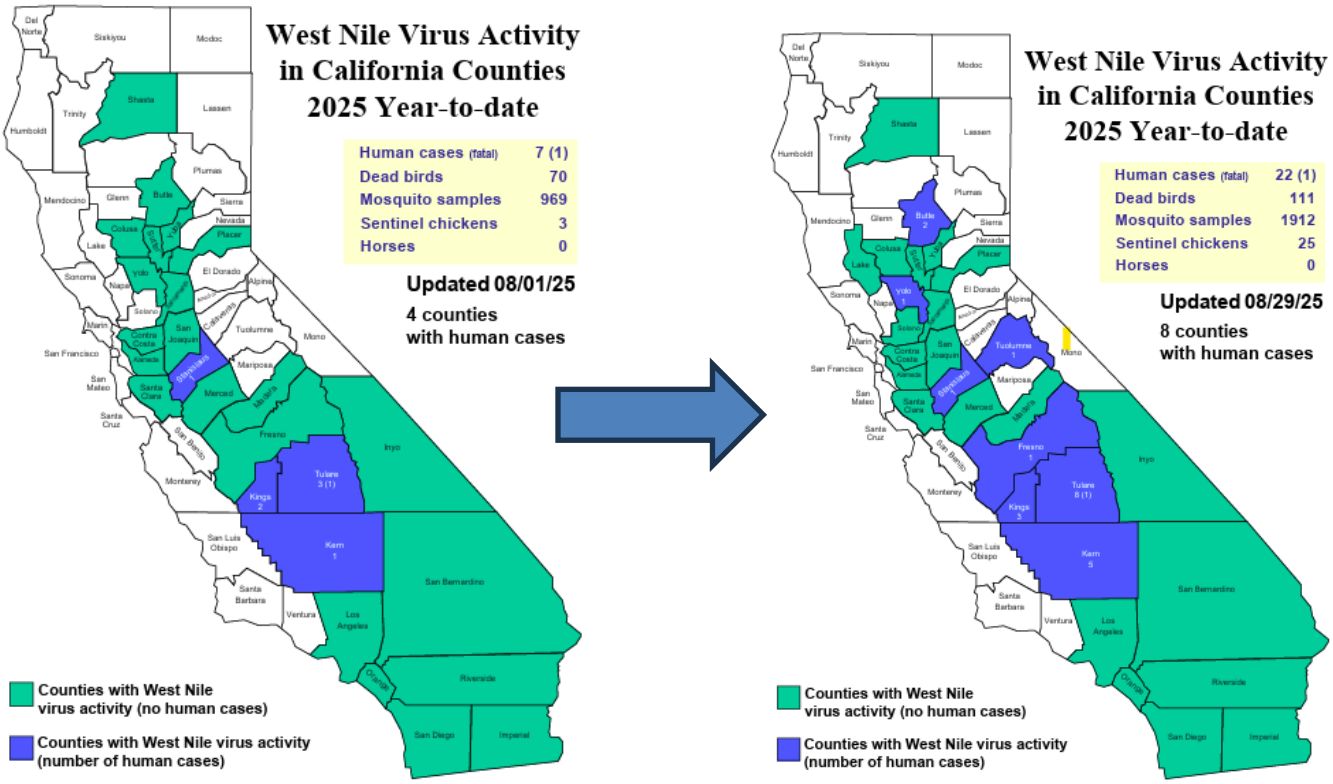
Nine dead birds from Santa Barbara County were reported to the state hotline in August. While four of the birds were not fresh enough for testing, samples were collected from five of the birds, and they all tested negative for West Nile virus (WNV). There have been no detections of WNV in the County in 2025. St. Louis encephalitis virus (SLE) has never been documented in the County.

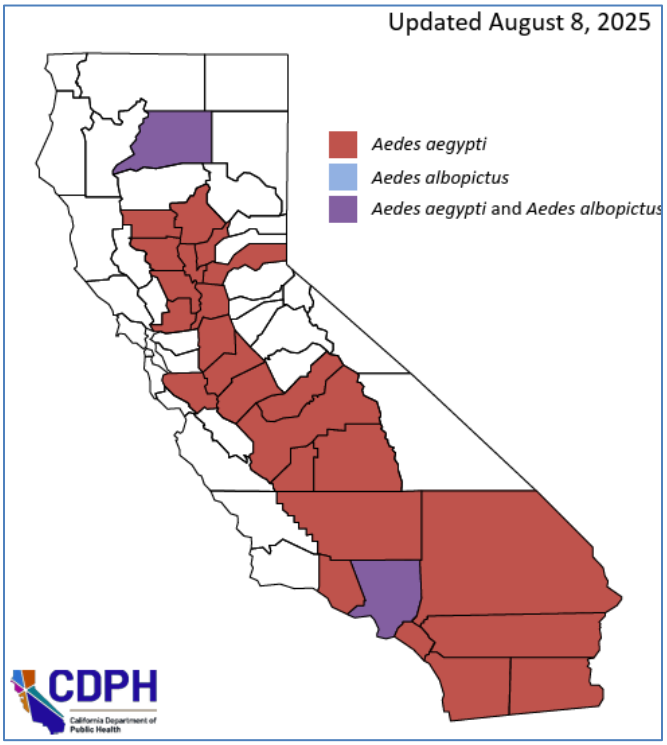
Location	Date	Number of Mosquitoes	Type of Trap	# of Traps	Mosquitoes per Trap Night	Pools Submitted	WSW* Virus Test Result
Santa Monica Creek, Carpinteria	8/6-8/7	9	EVS	3	3	0	--
Santa Monica Creek, Carpinteria	8/6-8/7	55	Gravid	2	27.5	4	Negative
Carpinteria Creek	8/6-8/7	5	EVS	3	1.7	1	Negative
Carpinteria Creek	8/6-8/7	37	EVS	2	18.5	2	Negative
Cravens Lane, Carpinteria	8/6-8/7	259	EVS	2	129.5	4	Negative
Cravens Lane, Carpinteria	8/6-8/7	2	Gravid	1	2	1	Negative
Carpinteria Salt Marsh	8/6-8/7	305	EVS	6	50.8	0	--
Carpinteria Salt Marsh	8/7-8/8	168	EVS	7	24	1	Negative
Storke Ranch, Goleta	8/14-8/15	8	EVS	3	2.7	2	Negative
UCSB/SBAIR Bluffs	8/14-8/15	40	EVS	9	4.4	3	Negative
UCSB/SBAIR Bluffs	8/14-8/15	76	Gravid	3	25.3	2	Negative
Goleta Sanitary District	8/12-8/14	191	Gravid	3	31.8	3	Negative
Carpinteria Salt Marsh	8/12-8/13	138	EVS	5	27.6	0	--
Santa Monica Creek, Carpinteria	8/12-8/13	13	EVS	3	4.3	0	--
Paradise Road, Los Padres National Forest	8/19-8/20	114	EVS	12	9.5	3	Negative
Paradise Road, Los Padres National Forest	8/19-8/20	5	Gravid	2	2.5	2	Negative
Storke Ranch	8/20-8/22	30	Gravid	1	15	1	Negative
Oceano Lagoon, San Luis Obispo County	8/26-8/27	3874	EVS	8	473	10	Negative

Location	Date	Number of Mosquitoes	Type of Trap	# of Traps	Mosquitoes per Trap Night	Pools Submitted	WSW* Virus Test Result
Pismo Golf Course, San Luis Obispo County	8/26-8/27	1003	EVS	3	501.5	3	Negative
Chumash Park, Pismo Beach, San Luis Obispo County	8/26-8/27	15	EVS	2	7.5	2	Negative
Pismo Creek, Pismo Beach, San Luis Obispo County	8/26-8/27	6	EVS	1	6	1	Negative
Carpinteria Salt Marsh	8/28-8/29	6	EVS	1	6	1	Negative
Sterling Avenue, Carpinteria	8/28-8/29	4	EVS	1	4	2	Negative
Mission Creek, 400 block of De La Vina St., Santa Barbara	8/28-8/29	12	EVS	1	12	2	Negative
Mission Creek, 400 block of De La Vina St., Santa Barbara	8/28-8/29	130	Gravid	1	130	3	Negative
Honda Valley Park, Santa Barbara	8/28-8/29	43	Gravid	1	43	2	Negative
Honda Valley Park, Santa Barbara	8/28-8/29	0	EVS	2	0	0	--
Park Lane, Montecito	8/28-8/29	23 black flies	EVS	1	0	0	--
4000 block Foothill Rd., Carpinteria	8/28-8/29	4	EVS	2	2	0	--

BGS2=Biogents Sentinel 2; BGP=Biogents Pro; EVS=encephalitis surveillance trap (CO^2)
*WSW=West Nile, St. Louis Encephalitis, 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 .

California Vector-borne Disease Surveillance: Change in WNV activity from July to August





Update on Invasive *Aedes* Mosquito in California

No invasive *Aedes* species have been detected in Santa Barbara County since May 2021. *Aedes aegypti* is found in 26 California counties and *Aedes albopictus* is found in two.

In 2024, there were **18** locally-transmitted cases of dengue virus in California: Los Angeles County (12), San Bernardino County (1), and San Diego County (4). Non-native *Aedes* mosquitoes, capable of vectoring dengue, Zika, chikungunya, and yellow fever viruses, are common in the Greater Los Angeles area. As of August 8, 2025, there have been 65 travel-related human dengue cases and two cases of Zika virus in California. There have been four travel-related cases of chikungunya virus, including one in Santa Barbara County. China is currently having the largest chikungunya outbreak ever known with over 7000 cases. There were five cases of travel-related dengue in Santa Barbara County last year. The current number of worldwide dengue cases is above average (about 4 million cases) but is lower than it was at this time last year.

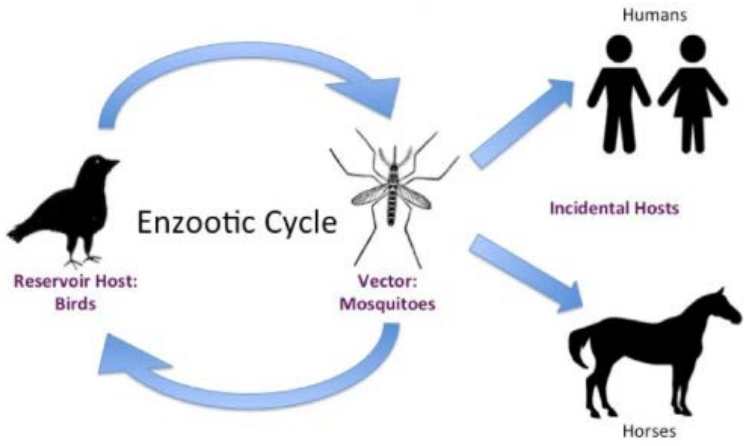
Culex tarsalis, WEEV vector. Photo by Pablo Cabrera

Western Equine Encephalitis Virus
WEEV

Western equine encephalitis virus is an alphavirus that is transmitted between birds by mosquitoes. Humans and horses are sometimes infected but are dead-end hosts, meaning there are not enough viruses circulating in the blood for mosquitoes to become infected while blood feeding. Birds, rodents, bats, and rabbits can be reservoirs for the virus. *Culex tarsalis* is the primary vector mosquito species.

Signs of WEE in horses include fever, depression, incoordination, muscle twitching or paralysis, and lack of appetite. Most infected people will have no symptoms. Symptoms include fever, fatigue, body aches, and headache. After recovery there may be permanent neurological damage.

One of the biggest human WEE outbreaks was in 1941 in Minnesota, where there were over 800 cases and 90 deaths. Since the most recent human outbreak of WEE in 1987, there have only been five cases in the United States, and the most recent case occurred in 1999. A 2024 study concluded that the virus has become less virulent over time due to changes in how the virus can enter host cells (1). The South American strain of WEEV, which caused 2464 equine cases and 73 human cases (7 fatal) in 2023, is distinct from the North American strain.



Western equine encephalitis virus disease cycle (www.equigerminal.com)

1. https://www.nature.com/articles/s41586-024-07740-2