MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

March 2024

Santa Barbara County Vector-borne Disease Surveillance

Mosquito trapping and disease surveillance has begun for 2024. Two dead birds (California towhees) were sampled but tested negative for West Nile virus. There were no detections of West Nile virus (WNV) in the County in 2023. St. Louis encephalitis virus (SLE) and Western equine encephalitis virus have 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
UCSB/SBAIR Bluffs	3/19-3/20	120	EVS	7	17.1	0	--
Shoreline/More Mesa, Goleta Valley	3/21-3/22	350	EVS	11	31.8	0	--

BGS2=Biogents Sentinel 2 BGP=Biogents Pro EVS=encephalitis surveillance trap (CO^2)
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*); Aqua = moderate; Tan = low.
For specific trap collection data, please email a request to: info@mvmdistrict.org .

On March 5th, staff assisted CDPH biologists with surveying for ticks by flagging* on three trails.

1) Toro Canyon County Park, **Toro Canyon Park Loop Trail** – 99 *Dermacentor occidentalis* (46 females/53 males), 1 *D. variabilis* (male), 7 *Ixodes pacificus* (2 females/5 males)
2) Summerland Greenwell Preserve, **Bella Vista Ranch Trail** – 60 *D. occidentalis* (33 females/27 males), 49 *I. pacificus* (29 females/20 males)
3) Cachuma Lake Recreation Area, **Sweetwater Trail** – 36 *D. occidentalis* (16 females/20 males), 42 *I. pacificus* (22 females/20 males)

CDPH biologists also surveyed the **Bodger Trail** near Lompoc -- 12 *D. occidentalis* (7 females/5 males), 1 *D. variabilis* (male), and 74 *I. pacificus* (45 females/29 males).

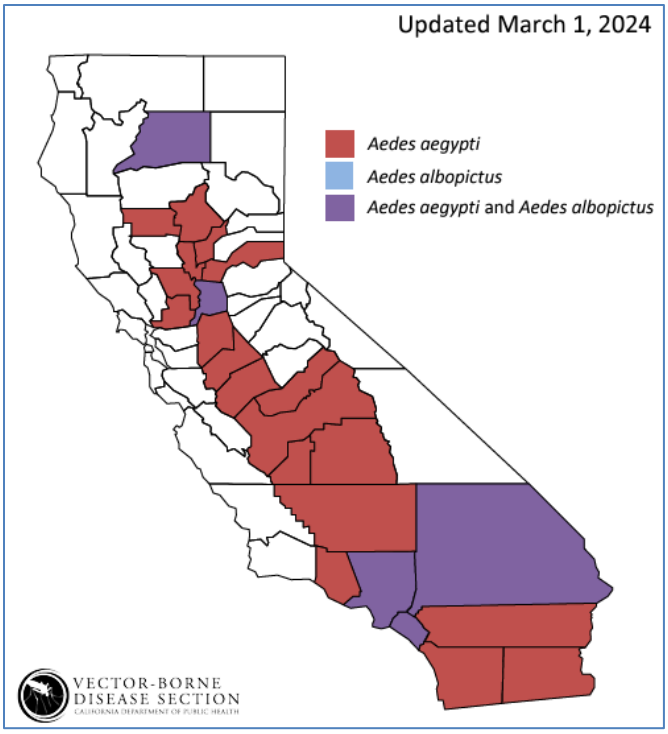
** Visit https://www.mvmdistrict.org/tick-talk for an explanation of tick flagging and more information about ticks.*

California Vector-borne Disease Surveillance

Alameda, Santa Clara, San Mateo, and San Diego Couties have reported samples positive for West Nile virus in 2024.

0	7	1	0	0
HUMAN CASES	DEAD BIRDS	MOSQUITO SAMPLES	SENTINEL CHICKENS	HORSES

California WNV activity as of March 29, 2024 https://westnile.ca.gov



Invasive *Aedes* Mosquito Update

No invasive *Aedes* species have been detected in Santa Barbara County since May 2021. Santa Barbara, along with four other 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.

Two human cases of locally transmitted dengue virus were discovered in the Long Beach and Pasadena in October of 2023. Non-native *Aedes* mosquitoes, capable of vectoring dengue, Zika, chikungunya, and yellow fever are common in the LA area. In 2024, there have been seven travel-related human dengue cases in California.

Pacific Coast Tick

Dermacentor occidentalis

The scientific name of the Pacific Coast tick, *Dermacentor occidentalis*, means “skin bite in the West.” It is commonly found in Santa Barbara County; about 54% of ticks collected on March 5, 2024, belonged to this species. It can vector *Rickettsia philipii*, the bacteria that causes Pacific Coast fever. Rocky Mountain spotted fever (*Rickettsia rickettsii*) and tularemia (*Francisella tularensis*) can also be transmitted by this tick’s bite. These bacteria can be transmitted after four to six hours of tick attachment. The District advises to avoid tick bites by wearing repellent, staying on hiking trails, avoiding contact with vegetation, and checking for ticks after outdoor activity. Pets should also be inspected for ticks after visiting wilderness areas. To remove an attached tick, grip it with tweezers close to the skin and pull straight out (no twisting, chemicals, smothering with oils or ointments, or fire should be used to remove ticks).

Eschars (dead tissue) caused by Pacific Coast fever

Rocky Mountain spotted fever rash