



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

DISEASE SURVEILLANCE REPORT

September 2020

Live Mosquito-Borne Virus Surveillance

Mosquito activity along the south coast of Santa Barbara was low. The number of mosquitoes caught at the UCSB/SB Airport bluffs decreased after treatment of the “Channel South of Duck Pond.” Numbers greatly decreased at the Oceano wetland in San Luis Obispo County which was treated by helicopter on August 20th.

Location	Date	Number of Mosquitoes	Type of Trap	Number of Traps	Mosquitoes per Trap Night	Pools Submitted	Result
Santa Barbara County							
More Mesa at Shoreline Drive	9/4-9/5	19	CO ₂	9	2.1	2	Negative
More Mesa at Shoreline Drive	9/1-9/5	9	gravid	3	1.1	3	Negative
Andree Clark Bird Refuge	9/10-9/12	22	gravid	3	3.67	2	Negative
Andree Clark Bird Refuge	9/16-9/17	50	CO ₂	12	4.2	1	Negative
Andree Clark Bird Refuge	9/10-9/12	0	BGS2	1	0	0	
Carpinteria Cemetary	9/16-9/18	95	Gravid	3	15.8	3	Negative
UCSB/SB Air Bluffs	9/23-9/24	84	CO ₂	10	8.4	2	Pending
Mission Hills Community Services District	9/23-9/24	0	CO ₂	2	0	0	
Mission Hills Community Services District	9/14-9/24	4	BGS2	1	0.4	0	
Santa Ynez River at Floradale Ave.	9/23-9/24	1	CO ₂	1	1	0	
Vandenberg Village Golf Club	9/23-9/24	2	CO ₂	2	1	0	
Bailey Wetland, Lompoc	9/23-9/24	18	CO ₂	3	6	1	Pending
San Luis Obispo County							
Oceano Wetland	9/10-9/11	1847	CO ₂	7	263.9	16	Negative
Chumash Park	9/10-9/11	31	CO ₂	2	15.5	1	Negative
North Beach Campground	9/10-9/11	360	CO ₂	2	180	7	Negative

West Nile Virus Activity

No WNV activity of any kind has been detected in Santa Barbara County this year, to date.

This September, the number of reported cases of human infection with WNV in 2020 in California has increased from 35 to 91. Three California cases were fatal this year.

One dead crow in the City of Santa Barbara was reported to the hotline in September. It was not accepted for testing because it had been dead too long. This month in California, 119 birds tested positive for WNV, bringing the 2020 total to 261. A total of 2295 positive mosquito pools were reported from 27 counties this year; this time last year, there were 3126 positive pools from 24 counties.

St. Louis Encephalitis Virus Activity

The first human infection with SLEV of 2020 has been reported in California this month. As of 9/25/2020, 449 positive mosquito pools were reported from nine counties.

Zika Virus and Invasive *Aedes* Mosquito Update

Ventura County has reported *Aedes aegypti* present in the county for the first time this month. A Santa Barbara resident heard the news and, on September 29th, provided the District with a suspicious sample mosquito from unincorporated County area near the City of Santa Barbara. We have now confirmed the presence of *Aedes aegypti* in Santa Barbara County. Technicians have been distributing pamphlets and setting traps in the area. Two additional *Aedes aegypti* specimens were collected from traps at the address so far. There has been one travel-related Zika virus infection reported in California in September. Invasive *Aedes* are present in the following counties: Los Angeles, Orange, San Diego, Riverside, San Bernardino, Imperial, Kern, Kings, Fresno, Madera, Merced, San Joaquin, Placer, Sacramento, **Santa Barbara**, Shasta, Stanislaus, Tulare, Ventura, and Yolo.

Western Equine Encephalitis

There was no reportable WEE activity in California for September.

Sentinel Chicken Flocks

The District currently maintains four sentinel chicken flocks in Santa Barbara County located at the Goleta Sanitary District, Mission Hills Community Services District, the Solvang City Wastewater Treatment Plant, and the U.S. Forest Service Fire Station in Carpinteria. Blood samples were collected from these chickens the weeks of September 1 (negative for the presence of WNV, SLEV and WEE), September 14 (negative), and September 28 (pending). Four of the Solvang chickens died when the temperature at the flock location reached 120°F. The District purchased 5 replacement chickens from Dare 2 Dream Farms. In California in 2020, 92 sentinel chickens from 13 California counties have tested positive for WNV.

Hantavirus

Biologists from the California Department of Public Health, Vector Borne Disease Section, inspected the suspected site of last month's hantavirus transmission in the City of Solvang. They caught only two mice that tested negative for Sin Nombre virus.



Aedes aegypti



Biogents Sentinel 2 Trap

Yellow Fever Mosquito *Aedes aegypti*

The yellow fever mosquito, *Aedes aegypti*, is native to Africa but has been invading much of the world, including California. They preferentially feed on humans; they aggressively bite during the day. *Ae. Aegypti* lay eggs in containers associated with people such as potted plant saucers, bird baths, rain gutters, tires, and buckets. The eggs can remain viable on the surface for many months and hatch when the container fills with water. Larvae develop in as little as seven days and in containers as small as a bottlecap. This species is capable of carrying and transmitting Zika virus, dengue virus, yellow fever virus, chikungunya virus, and Mayaro virus to people. They typically stay within 150 meters (492 feet) of their development site. The Biogents Sentinel (BGS) trap has been developed specifically for detection of the yellow fever mosquito and the Asian tiger mosquito (*Aedes albopictus*). It uses a human-scented lure, and mosquitoes are sucked into the collection net by a small fan. The fan can be plugged into an electrical outlet or attached to a 12-volt battery. The District has 12 BGS-2 traps and 3 first generation BGS traps.