MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

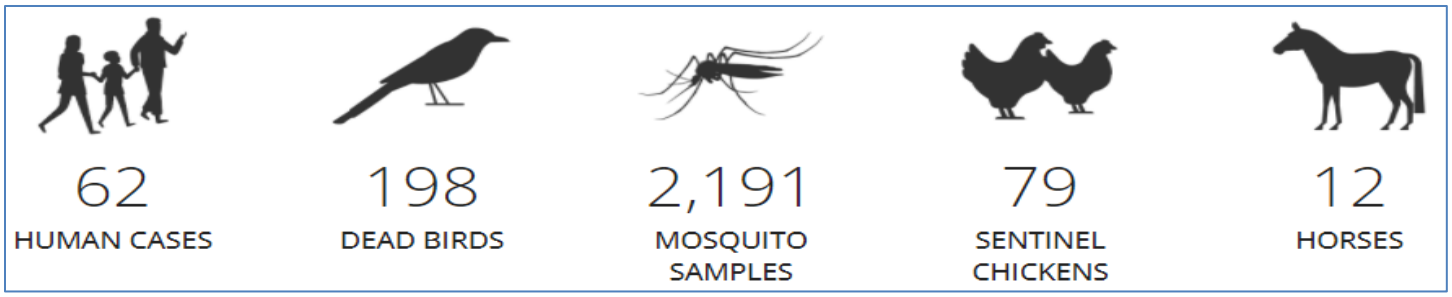
October 2021

Live Mosquito-Borne Virus Surveillance

Location	Date	# of Mosquitoes	Type of Trap	# of Traps	Mosquitoes per Trap Night	Pools Submitted	WSW Virus Test Result
Crescent Dr., North Hope area, 93110	9/30-10/1	4	EVS + BG lure	9	0.4	0	
Crescent Dr., North Hope area, 93110	9/24-10/1	54	Gravid	2	9.0	3	-
East Summerland	10/1-10/7	12	Gravid	2	1	1	-
Santa Monica Creek Debris Basin, 93013	10/7-10/14	5	Gravid	2	0.4	1	-
1400 to 1900 block Chino St.	10/14-10/15	2	EVS + BG lure	9	0.2	0	
Evergreen Park, Goleta 93117	10/18-10/19	35	EVS + BG lure	5	7	1	-
Firestone Rd. x Arnold St., 93117 (SB Airport)	10/15-10/20	6	Gravid	2	0.2	1	-
Laguna Lake Park, SLO, 93405	10/20-10/21	89	EVS	3	29.6	2	-
SLO, Producer's Ditch, Sacramento Dr. 93401	10/20-10/21	25	EVS	3	8.3	1	-
SLO Water Treatment Plant, 93405	10/20-10/21	6	EVS	3	2	1	-
Pismo Beach Golf Course, Oceano State Park, SLO 93445	10/20-10/21	135	EVS	3	45	3	-
Oceano Dunes State Park, SLO 93445	10/20-10/21	4	BGP	3	1.3	0	
SB Airport/UCSB Bluffs	10/28-10/29	37	EVS	8	4.6	3	Pending
Crescent Dr., North Hope area, 93110	10/26-11/1	33	Gravid	2	5.5	2	Pending
Crescent Dr., North Hope area, 93110	10/4-10/29	2	BGS2	2	0.04	0	
Chino Street Area, SB 93101	10/4-10/29	2	BGS2	4	0.08	0	
MVMD of SBC	10/4-10/29	1	BGS2	1	0.04	0	

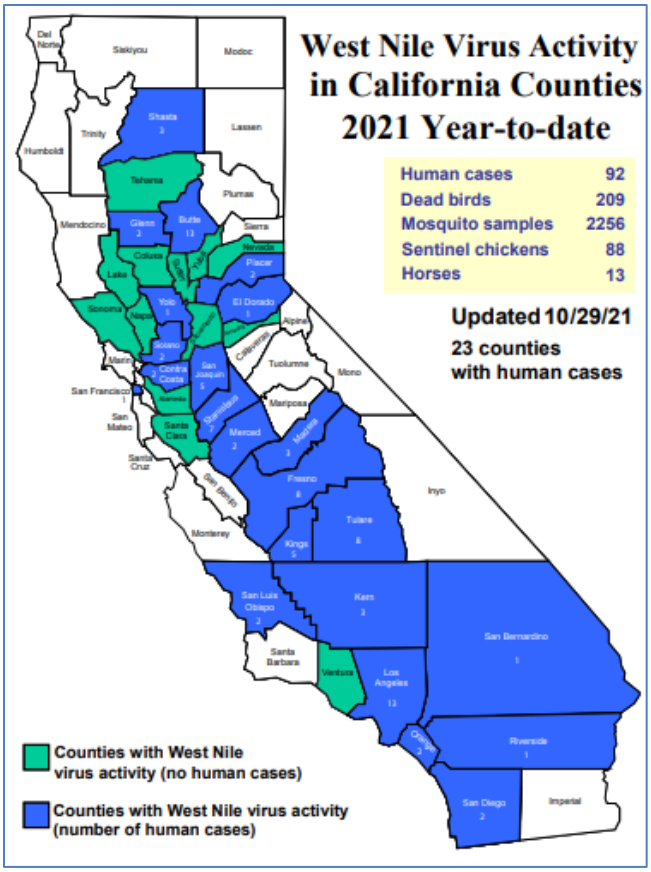
BGS2=Biogents Sentinel; EVS= CO_2 trap; WSW=WNV, SLEV, AND WEE; BGP=Biogents Pro

California WNV totals January 1-October 1, 2021



4 weeks

California WNV totals January 1-October 29, 2021



California Arbovirus Detection
Over the past month, the number of human cases of West Nile Virus in California has increased by 48%, but there has been little change in positive dead birds, mosquitoes, sentinel chickens, or horses.

Eight mosquito pools tested positive for St. Louis encephalitis virus this month; the California 2021 total is forty-four mosquito pools in eight counties. One human case of St. Louis encephalitis has been reported in California this year (Fresno County).

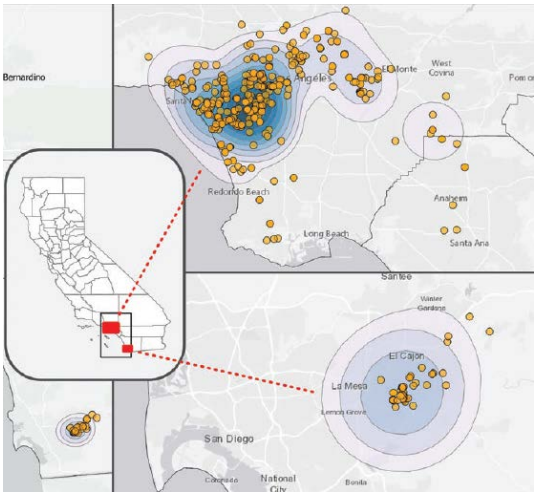
Arbovirus Activity in Santa Barbara County
Last month, two dead birds from Santa Barbara County were reported. One house finch was tested for West Nile virus, and the results are pending. Fourteen mosquito pools from nine sites tested negative for WNV, SLE, and WEE; results are pending for five pools from two sites.

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 taken the weeks of October 11, and October 26; all samples tested negative for WNV, SLE, and WEE.

Zika Virus and Invasive *Aedes* Mosquito Update
A resident of the City of Santa Barbara, living one block away from a previous *Aedes aegypti* detection, submitted a mosquito that shares many characteristics with the non-native species. However, thorax scales were missing, so identification could not be 100% confirmed by microscope.

Aedes aegypti mosquitoes are present in 22 California counties. One person has tested positive for Zika virus in California in 2021 to date; the infection is travel-associated. There have also been 10 cases of dengue fever and three cases of chikungunya, all travel-associated.

City of Greater Geelong



Metzger, et al., *Journal of Medical Entomology*

Aedes notoscriptus
The Australian Backyard Mosquito

Colleagues at CDPH and several Southern California mosquito programs recently collaborated to report the establishment of the non-native mosquito *Aedes notoscriptus* to the *Journal of Medical Entomology*. There were 744 detection sites in Southern California between 2014 and 2019. A variety of collection methods were used. The article states, “The vast majority of *Ae. notoscriptus* were collected serendipitously. Some specimens were collected in traps set as part of routine arbovirus surveillance, whereas others were collected in *Aedes*-specific traps and during property inspections for day-biting mosquito complaints expected to produce *Ae. aegypti* and/or *Ae. albopictus*. However, in some cases specific surveillance efforts targeting *Ae. notoscriptus* were conducted following initial detections.” The greatest numbers of *Ae. notoscriptus* were caught June through November.

The Australian backyard mosquito looks very similar to *Aedes aegypti*, with the addition of a band of white scales around the middle of the proboscis. California’s three non-native *Aedes* species all share similar behavior, breeding sites, and egg desiccation resistance, although *Aedes notoscriptus* blood-feeds only outdoors on a wider variety of animals. Like *Aedes aegypti* and *Aedes albopictus*, it can also potentially vector a multitude of arboviruses. In addition, it could become an important vector of dog heartworm, *Dirofilaria immitis*, in California, as it is in Australia.

The article can be viewed at https://doi.org/10.1093/jme/tjab165.