



MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

February 2022

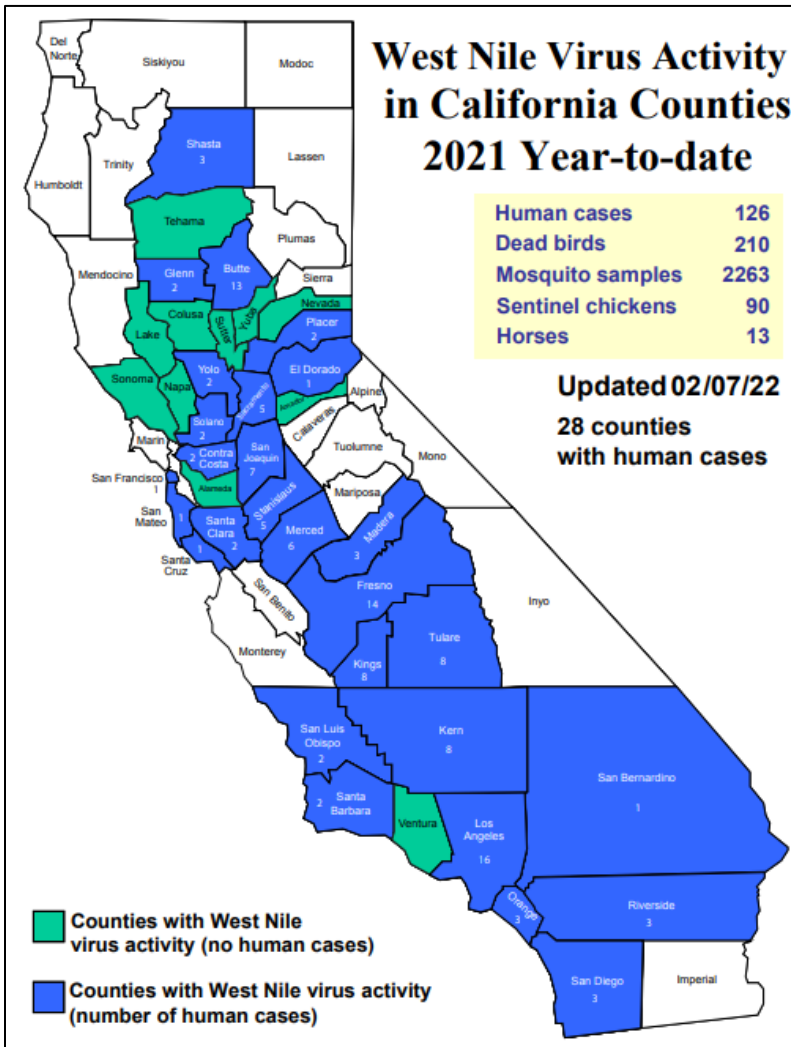
Vector-borne Disease Surveillance

Mosquito trapping will resume in March. Mosquitoes are unlikely to be active when overnight temperatures are lower than 50°F.

Staff joined Dr. Sarah Billeter and Dr. Marco Metzger from the CA Dept. of Public Health on a tick collection quest on February 16, 2022 at the three sites listed in the table below. All ticks collected were adults. Disease testing results are pending.

Site	<i>Ixodes pacificus</i> male	<i>Ixodes pacificus</i> female	<i>Dermacentor occidentalis</i> male	<i>Dermacentor occidentalis</i> female	<i>Dermacentor similis</i> *	<i>Dermacentor similis</i> *
Romero Canyon Trail	15	14	28	30		
Jesusita Trail	24	34		1	1	
Aliso Canyon Trail (Paradise Road)	25	21	7	9		

*formerly *Dermacentor variabilis*



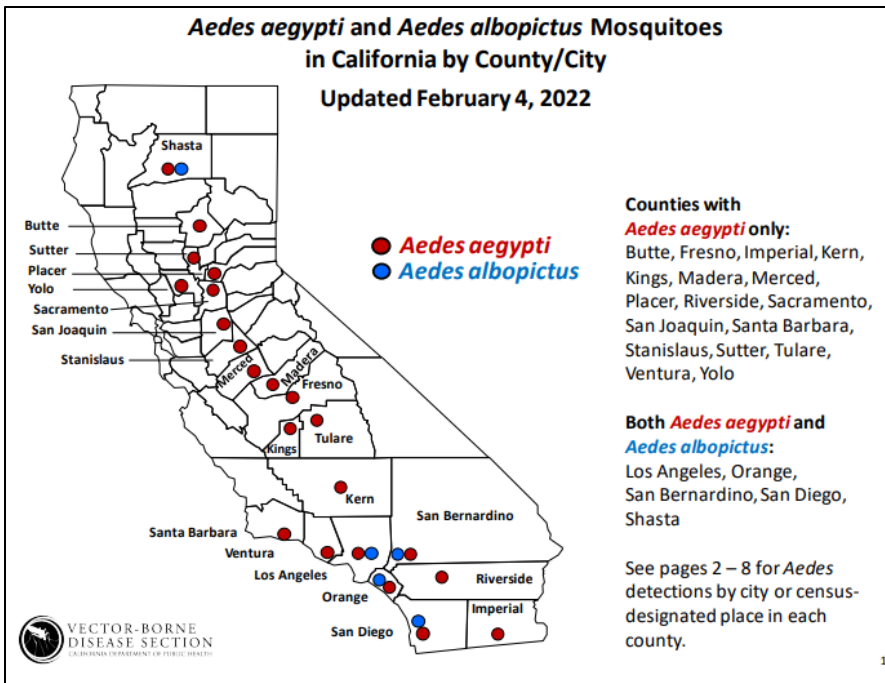
California Arbovirus Detection

In 2022, no detections of West Nile virus, Saint Louis encephalitis virus, or Western equine encephalitis virus have been reported in California.

Arbovirus Activity in Santa Barbara County

No dead birds were reported in January or February 2022. No mosquito pools were submitted.

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. Chickens are tested for antibodies to WNV, SLE, and WEE. Blood samples were collected the week of January 31st; all samples tested negative. The program is being discontinued, and the final sample collection date was on March 1, 2022.



Invasive *Aedes* Mosquito and Zika Virus Update

No *Aedes aegypti* mosquitoes or other invasive *Aedes* species have been detected in Santa Barbara County in 2022.

Aedes aegypti mosquitoes are present in 22 California counties; *Aedes albopictus* is present in five and *Aedes notoscriptus* in three. There have been no human cases of Zika, dengue, or chikungunya in California in 2022.



Tick Flagging and Dragging

Two common methods of collecting ticks are flagging and dragging. Rulison, et al. (1), give a great description: “Flagging involves sweeping a cloth material (i.e., flannel, cotton) attached like a flag to a hand-held pole or dowel and swept through leaf litter or vegetation. Dragging involves pulling the equivalent material behind the investigator, typically by rope attached to a basal pole, with the pole horizontal and perpendicular to the direction of movement.” Ticks questing for a host wait on the edges of vegetation with their legs reaching out. They grab onto the material as it sweeps by. The material is checked about every 10 meters, and ticks are placed in vials of alcohol with a forceps. Following a 1993 paper written by the current chief of the CDPH Vector Borne Disease Section (2), it has become common practice to sample mainly on the uphill side of a trail. Later papers describe how ticks crawl downhill until they come to a trail and then climb up vegetation next to the trail.

1. Rulison EL, Kuczaj I, Pang G, Hickling GJ, Tsao JI, Ginsberg HS. Flagging versus dragging as sampling methods for nymphal *Ixodes scapularis* (Acari: Ixodidae). J Vector Ecol. 2013 Jun;38(1):163-7. doi: 10.1111/j.1948-7134.2013.12022.x.

2. Kramer VL, Beesley C. Temporal and spatial distribution of *Ixodes pacificus* and *Dermacentor occidentalis* (Acari: Ixodidae) and prevalence of *Borrelia burgdorferi* in Contra Costa County, California. J Med Entomol. 1993. May;30(3):549-54. doi: 10.1093/jmedent/30.3.549.