



## MOSQUITO and VECTOR MANAGEMENT DISTRICT of SANTA BARBARA COUNTY

# DISEASE SURVEILLANCE REPORT

February 2023

### Vector-borne Disease Surveillance

Mosquito trapping will resume in March, weather permitting.

One dead bird was reported and picked-up for West Nile Virus testing, but it was partially decomposed; therefore, it was not suitable for sampling.

District staff assisted California Department of Public Health biologists with a tick survey on February 8, 2023. Ticks were collected at 2 of the 3 locations surveyed by flagging\*. Test results for the presence of pathogens in the specimens that were collected are pending.

1. Cachuma Lake Recreation Area, Sweetwater Trail – Western black-legged tick, *Ixodes pacificus*: 8 males, 14 females; Pacific coast tick, *Dermacentor occidentalis*: 18 males, 19 females.
2. San Marcos Foothills Preserve, Atascadero Creek Trail – *I. pacificus*: 4 males, 2 females; *D. occidentalis*: 40 males, 34 females.
3. Coal Oil Point Reserve, Pond Trail – no ticks were found.

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

### Invasive *Aedes* Mosquito and Zika Virus Update

No invasive *Aedes* species have been detected in Santa Barbara County, to date, in 2023.

### In2Care Mosquito Stations

Several California vector control districts have reported success with In2Care Mosquito Stations against invasive *Aedes* mosquitoes. The District has purchased a set to use in 2023. They kill adult mosquitoes, collect larvae, and auto-disseminate larvicide to other oviposition sites.

1. In2Care Stations attract container-breeding female mosquitoes. The shape and dark color of the station and the attractant tablet dissolved in the water create an ideal oviposition site for *Aedes aegypti*.
2. The female lands on the ring at the surface of the water and lays eggs.
  - a. When the eggs hatch, the larvae will die when the pupal stage is reached because of the juvenile insect hormone larvicide in the station.
    - i. When the trap is re-filled (every 4 weeks), staff can collect and identify the larvae.
  - b. The female gets dusted with the hormone larvicide and a slow-acting fungus-based insecticide.
3. Before the fungus can take effect, the female visits other containers to lay eggs and contaminates each with the hormone larvicide.

