MOSQUITO and VECTOR MANAGEMENT DISTRICT
of SANTA BARBARA COUNTY

DISEASE SURVEILLANCE REPORT

November 2023

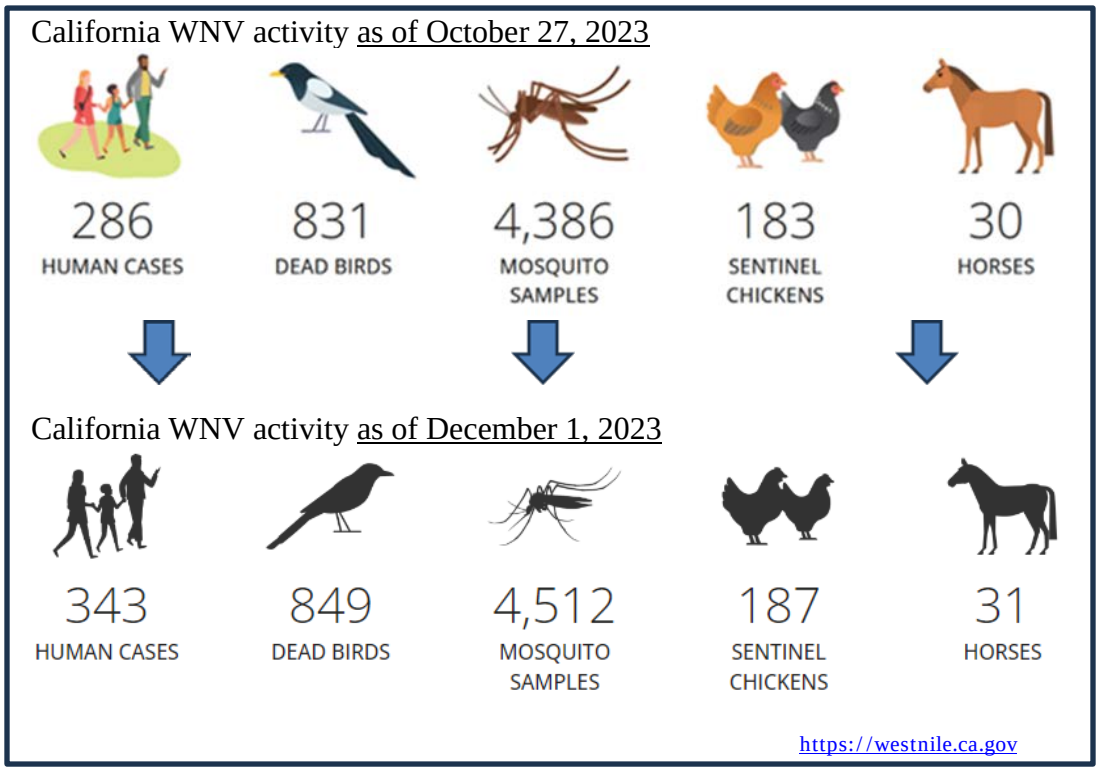
Santa Barbara County Vector-borne Disease Surveillance

No trapping was conducted this month due to a combination of lower nighttime temperatures, a lack of complaints received from residents, holidays and key personnel were on sick leave. No mosquitoes, ticks, or dead birds were collected in November. To date, there has been no West Nile virus activity in the County in 2023. St. Louis encephalitis virus and Western equine encephalitis virus have never been documented.

California Vector-borne Disease Surveillance

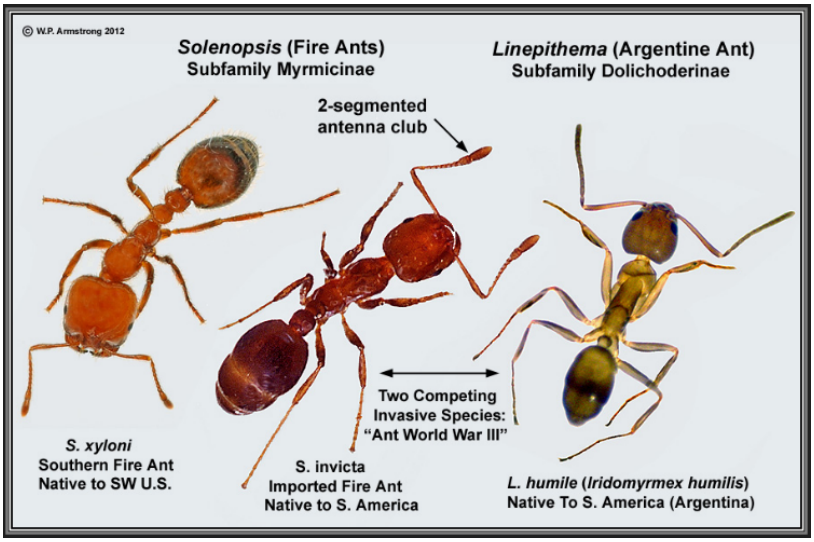
As of December 1st, WNV has been detected in 41 counties. There have been 343 human cases in 35 counties, and 74% of cases were neuro-invasive. Eleven human cases were fatal. Sixteen human cases of Saint Louis encephalitis virus have been reported in CA in 2023; 728 SLE-positive mosquito pools have been reported in 15 counties. On October 13, the WNV dead bird program switched to only online reporting and limited testing until April. Our neighboring counties of Ventura and San Luis Obispo have had detections of WNV this year. Ventura County has had one human case and four positive dead birds. SLO has had two humans, one dead bird, and two horses test positive.

Two cases of locally transmitted dengue virus were discovered in the Los Angeles area in October. Trapping and testing around these finds have not revealed any dengue-positive mosquitoes. Non-native *Aedes* mosquitoes, capable of vectoring dengue, Zika, chikungunya, and yellow fever are common in the LA area. In 2023 to date, there have been 105 travel-related human dengue cases in California; Santa Barbara County has reported three travel-related cases.



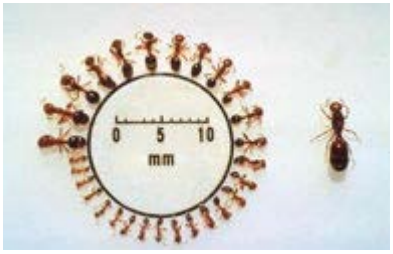
Invasive *Aedes* Mosquito Update

No invasive *Aedes* species have been detected in Santa Barbara County since May 2021. *Aedes aegypti* is found in 25 California counties, and *Aedes albopictus* is found in five.



Red Imported Fire Ants (RIFA)
Solenopsis invicta

The Santa Barbara County Agricultural Commissioner's Office notified the District in November that red imported fire ants (RIFA) were found in Montecito. Two months ago, the invasive ants were accidentally delivered from Riverside County in a shipment of boxed sycamore trees. The Ag Office, the University of California Cooperative Extension, and the California Department of Food and Agriculture are managing the infestation.



Fire ant colonies have workers of many different sizes. Queen on the right. Photo by Bart Drees

RIFA are best known for aggressive behavior and painful bites, especially when a nest is disturbed. Angry ants readily swarm humans and animals that get too close. Nests resemble gopher mounds in shape and size. RIFA seek nesting areas with high available moisture, such as tended lawns and among irrigated plants. A nest can grow to 10,000 ants in just one year. Two nodes on the "waist" between the two rear body segments is one of the main identifiers of fire ants. Colonies can grow to 100,000 to 500,000 ants after three years.

<u>Other ants of interest</u>

Native Southern fire ants-*Solenopsis xyloni* (top photo)
A small detail above the ant's mouthparts separates the County's native fire ant species from RIFA. They are less aggressive than and don't need as much moisture as RIFA.

Harvester ants-*Pogonomyrmex californicus* (right photo)
Harvester ants produce one of the strongest and most painful ant venoms. However, their stingers are barbed, so individuals can only sting once. They harvest and feed-on seeds.

Argentine ants-*Linepithema humile* (top photo)
This small, invasive species is one of the most common household pests in Santa Barbara County. People have reported bites from Argentine ants.

Harvester ants
Photo by Brandon Woo