

Santa Clara County Vector Control District Operations and Surveillance Report April 2018



<i>Table of Contents</i>	<i>page</i>
Manager’s Message	1
Operations Report: Curbs and Catchbasins	2
Operations Report: Neglected Pools and Mosquitofish	3
Sentinel Chicken Invasive Mosquito Trapping	4
Local Arbovirus Detection Statewide Update	5
Public Service Requests and Insect Identification	6
Open House Update	5
District Mission	8

District Mission

To detect and minimize vector-borne diseases, to abate mosquitoes, and to assist the public in resolving problems with rodents, wildlife and insects that can cause disease, discomfort or injury in humans.

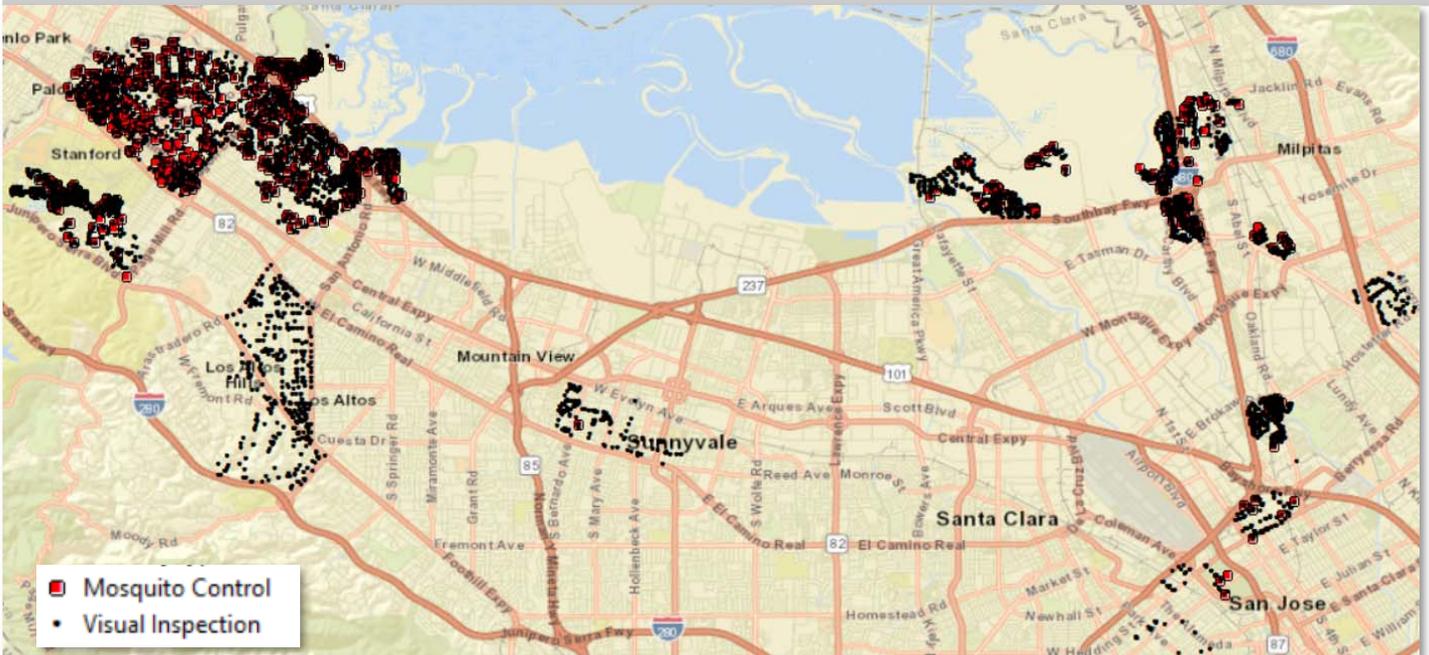
Services Provided

- Detection of the presence/prevalence of vector borne diseases, such as Plague, West Nile Virus, rabies, & Lyme disease, through ongoing surveillance and testing
- Routine inspections, and treatment as necessary, of known mosquito and rodent sources
- Response to customer initiated service requests for identification, advise, and/or control measures for mosquitoes, rodents, wildlife, and miscellaneous invertebrates (ticks, yellow jackets, cockroaches, bees, fleas, flies, etc.)
- Free educational presentations for schools, homeowners associations, private businesses, civic groups and other interested groups
- Free informational material on all vectors and vector borne diseases

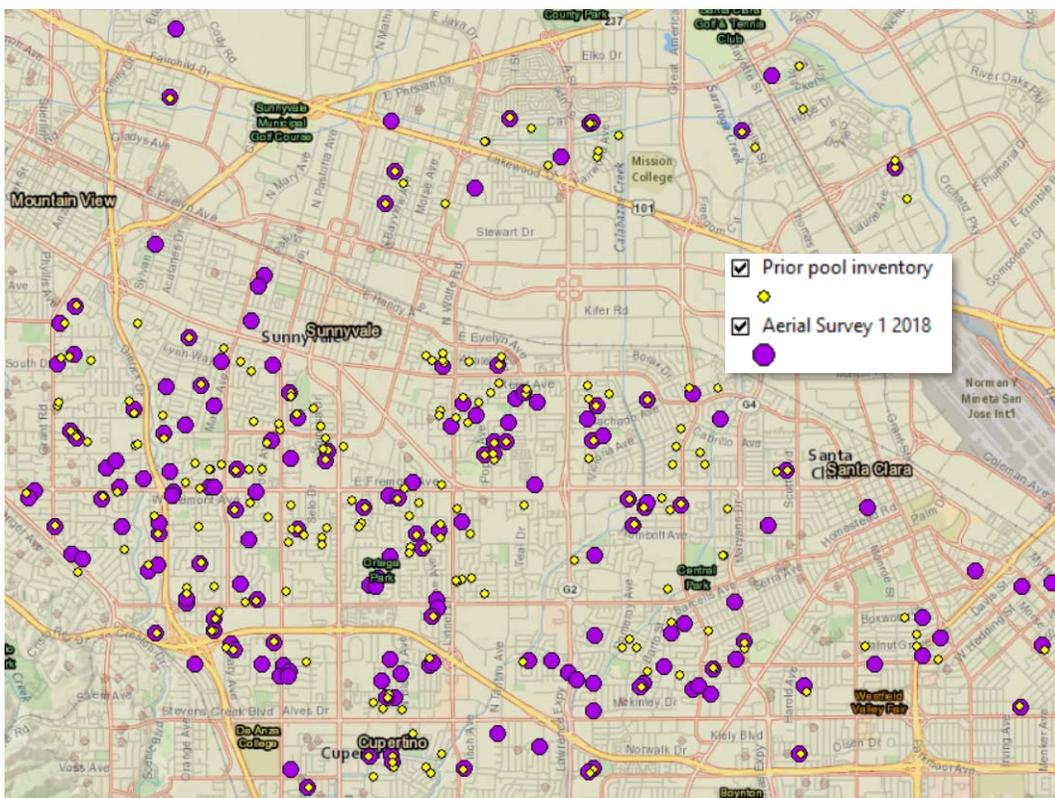
Manager’s Message

A mosquitofish is the common name for *Gambusia affinis*. It is a small fish related to common guppies. They are called mosquitofish because mosquito larvae are their primary diet they can eat 100 to 500 mosquito larvae per day. Residents can request online www.sccvector.org or call the office ((408) 918-4770) and the fish will be delivered to them.

Operations Report: Curbs and Catchbasins

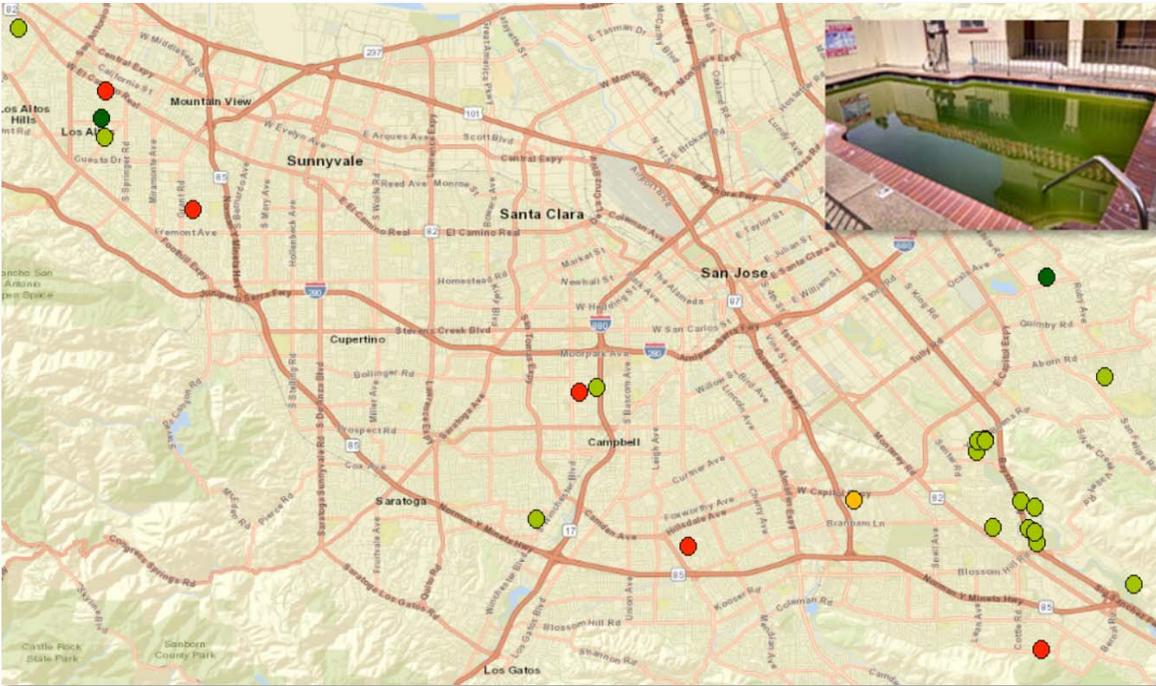


The District employs seasonal staff to check and treat mosquitoes in flooded street curbs and stormwater catchbasins. These sites hold standing water due to rainfall or urban runoff from domestic water usage. **During April 2018, there were 1,436 catch basins treated out of 6,209 basins inspected. Curbing operations will begin during May.**



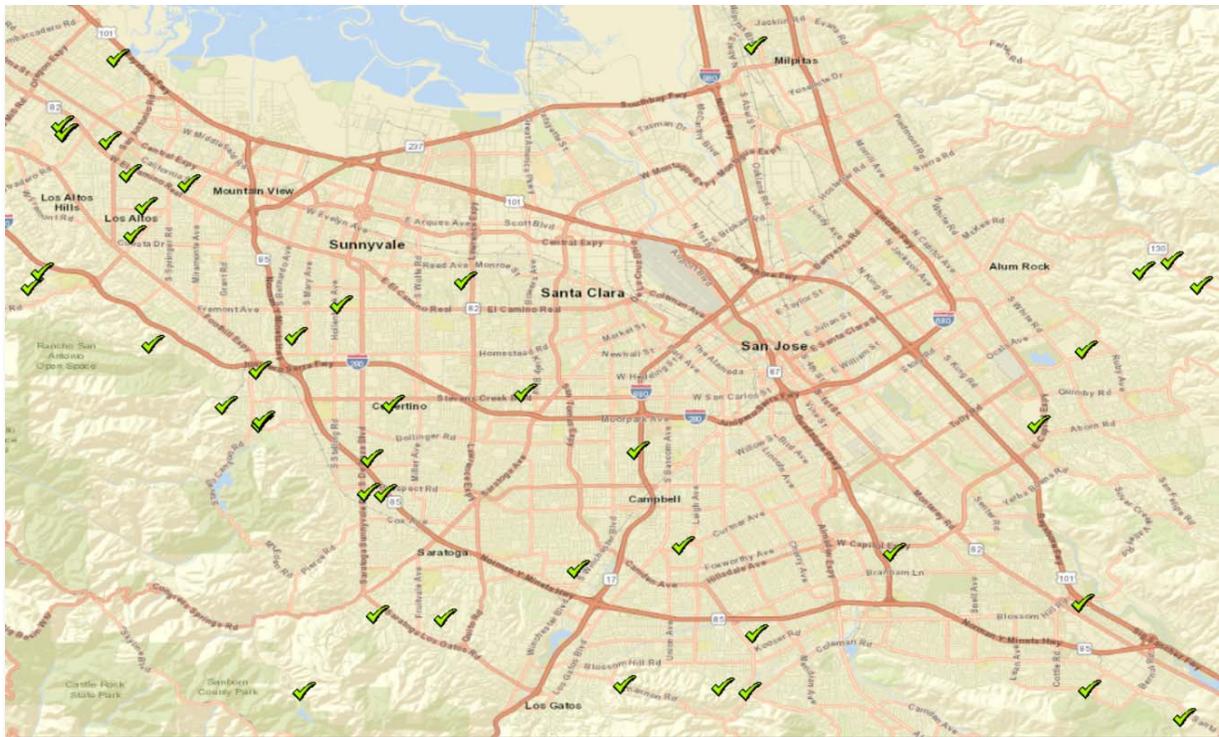
Aerial swimming pool surveillance began in April. Of the 172 locations identified for inspection, 112 (65%) were not previously inventoried.

Operations Report: Neglected Pools



Stagnant water in neglected swimming pools can produce hundreds of mosquitoes and cause a local nuisance to neighborhoods. The District inspected 26 pool locations during April.

Operations Report: Mosquitofish Service Requests

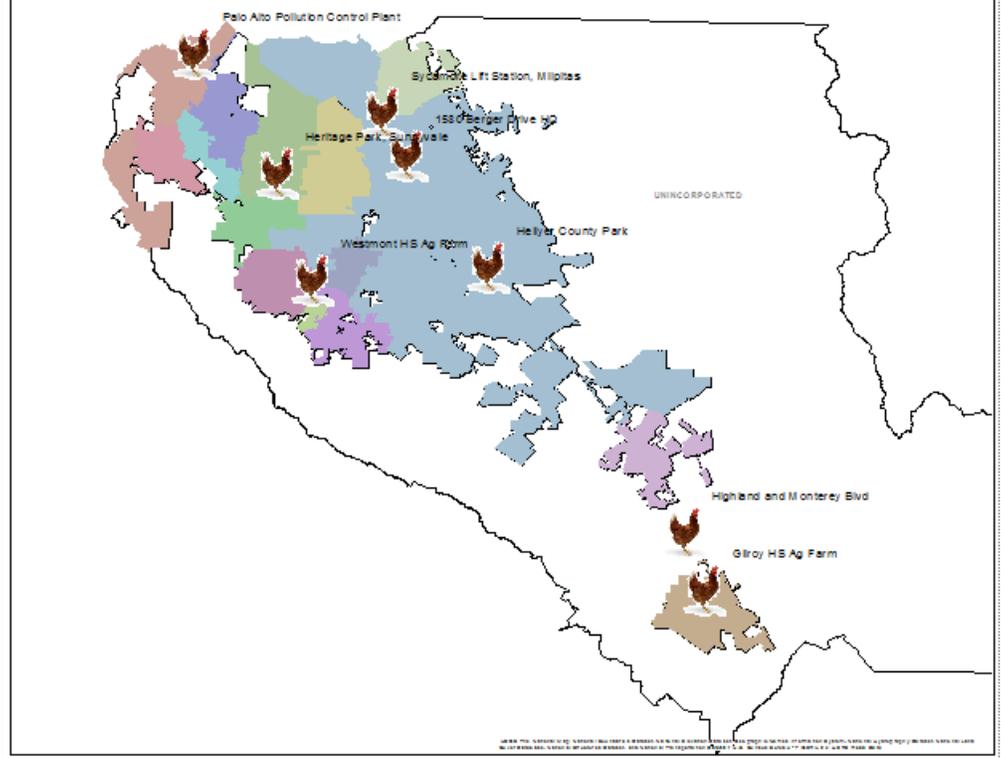


The mosquitofish is a topminnow (*Gambusia affinis*) that is a natural predator of larval and pupal stage mosquitoes. District staff deliver fish for stocking backyard sites like fountains, ponds, and rain barrels. A total of 431 fish were delivered to 45 properties during April.

Sentinel Chickens

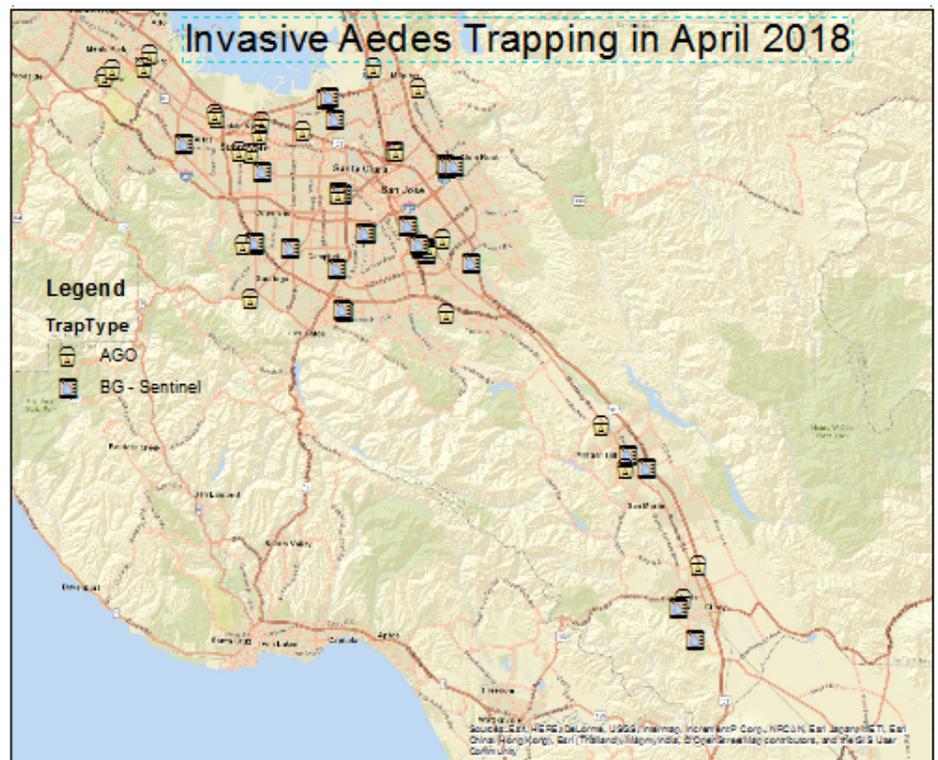
The District started surveillance for mosquito-borne encephalitis in April. This year, the District will maintain sentinel chickens at seven locations in Santa Clara County. All sites are associated with large breeding areas for *Culex pipiens* and *Cx. tarsalis* the vector of West Nile Virus encephalitis.

Sentinel Chicken Flock Sites in Santa Clara County 2018

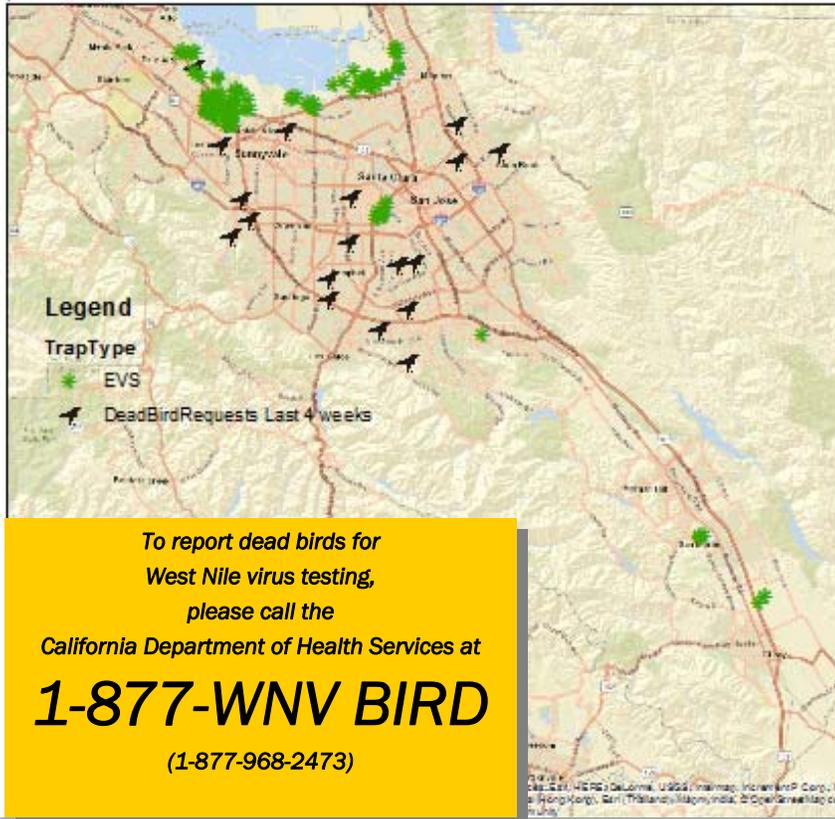


Invasive Aedes Surveillance

	Positive Detections	
TrapType	Total	0
AGO	31	0
BG - Sentinel	40	0
Ovitrap	5	0
Grand Total	76	0



Mosquito Arbovirus Surveillance



Sampling for arthropod-borne virus (Arbovirus) via dead birds is continuous throughout the year, but mosquito trapping is primarily from April through October when mosquitoes are more active. Trapping for mosquitoes targeted Palo Alto, Mountain View and other *south bay sites* yielding a variety of floodwater and standing water mosquitoes.

Mosquito females species	Total
<i>Aedes dorsalis</i>	11
<i>Aedes squamiger</i>	21
<i>Aedes washinoi</i>	2
<i>Culex pipiens</i>	99
<i>Culex tarsalis</i>	48
<i>Culiseta incidens</i>	31
<i>Culiseta inornata</i>	1
Grand Total	213

West Nile Virus Update

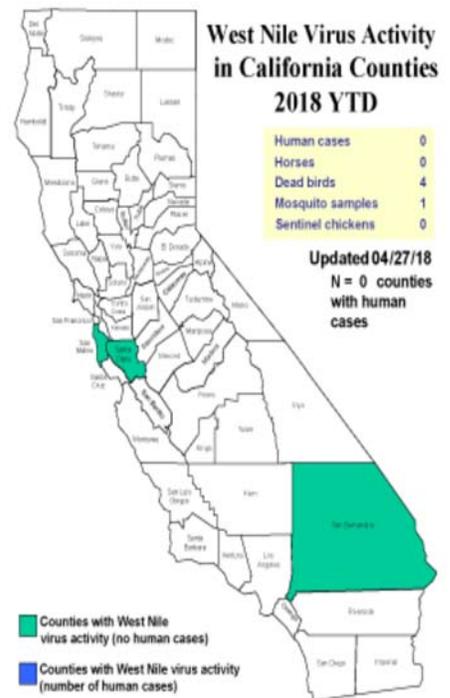
Species	Negative	Positive	Total
American Crow	14	2	16
Cooper's Hawk	1	1	1
Dark-eyed Junco	1	1	1
Goldfinch	1	1	1
Hawk	1	1	1
House Finch	1	1	1
House Sparrow	1	1	1
Northern Mockingbird	1	1	1
Sparrow	2	2	2
Unknown	1	1	1
Unknown - songbird	1	1	1
Grand Total	25	2	27

Statewide:

As of April 27th 2018, 4 dead birds have tested positive for West Nile Virus (WNV) in California (see map at right). At this time last year, 3 positive birds had been reported. One positive mosquito sample was detected in the state so far this year in San Bernardino County. To date, no human cases have been reported this year.

Santa Clara County:

As of April 27, 2018, 90 dead birds have been reported in Santa Clara County. Of these reported birds, 27 have been tested for WNV and 2 were found positive. The Sentinel Chickens Program started in April 2018 and now each chicken has been sampled three times—all negative so far.



Public Service Requests

Service Requests	
Issue	Total
Bed Bug	5
Bees	17
Cockroaches	6
Coyote	11
Gambusia (Mosquito Fish)	70
Mosquitoes	55
Neglected Pool	20
Opossum	20
Other (see description)	6
Other Invertebrate	3
Other Vertebrate	6
Raccoons	13
Rodents	75
Skunk	14
Snake	5
Squirrels	4
Wasps/Yellowjackets	6
Grand Total	336

During April there were 336 calls for service among a wide range of issues including rodents, mosquitoes, requests for mosquitofish, stinging insects (bees and yellowjackets) and wildlife. Services provided include home inspections for rodents or wildlife and phone consultations. Calls regarding rodents and mosquitofish were again highest in frequency.

Insect Identification Service

Insect Identification

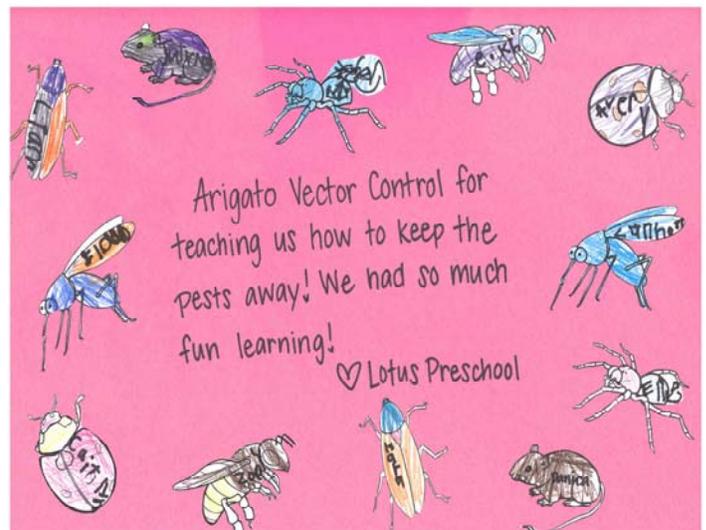
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Eighteen arthropods were submitted by residents for identification during April including: flies, spiders, biting mites, cockroaches, ticks, springtails termites and bedbugs (as depicted on left). Bedbugs are reported throughout the year since they inhabit homes and are thus not influenced by seasons or weather. The picture shows a male and female bedbug in tandem.



Santa Clara County Vector Control District held its annual open house, in collaboration with the County Consumer and Environmental Protection Agency, on April 17. All employees of the VCD and CEPA were excited to host the Open house, with the goal of educating the public about details of our vector surveillance and operations services, and also about beneficiary insects, such as honey bees. About 200 visitors learned about how VCD protects the public, and also about the services that CEPA provides. Some of the important booths demonstrated how mosquitofish control the larvae, the materials that we use for mosquito control, mosquito traps that are used in surveillance, live demonstration of trapped bedbugs, ticks, cockroaches and other insects and in-site insect identification. While our wildlife specialists talked about other mammals in the County, kids could enjoy a challenge of finding mosquito breeding containers. Also, three laboratory tours were given to those who were interested in the techniques and tools that VCD implements to monitor vectors-borne diseases (West Nile Virus, Saint Louis Encephalitis, Western Equine Encephalitis, Lyme disease). It was encouraging to all VCD members to see such an enthusiastic support from the community members. Thank you!





Santa Clara County
Vector Control
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"A VECTOR is any animal that can transmit disease to animals or people."