

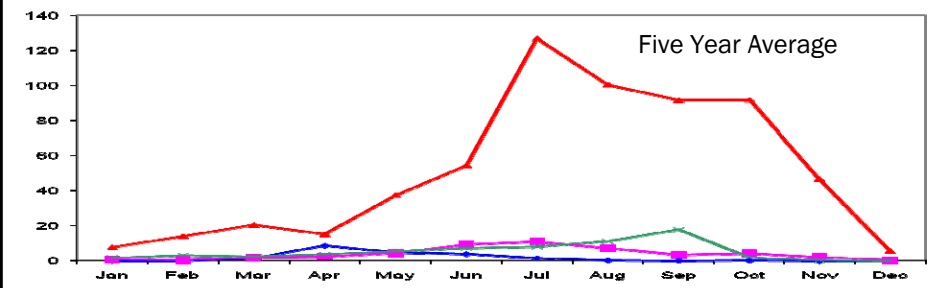
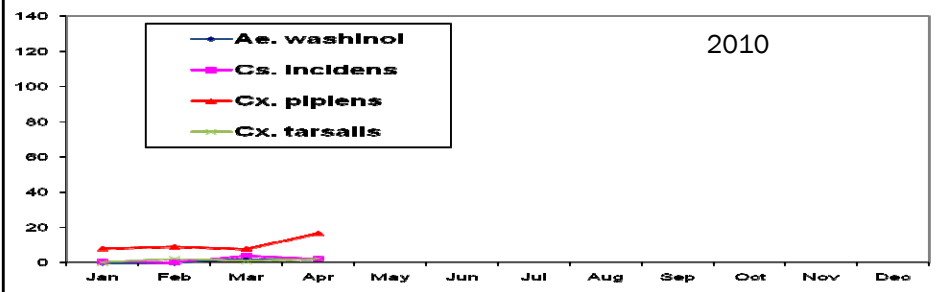


# Entomology Report

## Adult Mosquito Populations in CO2 Traps

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### Mosquito Control Operations



This rock pile behind the Cow Palace housed many pockets containing water and mosquitoes. District staff worked with the city of Daly City and the property owners to have the pile re-graded, eliminating a major source of mosquitoes

Throughout April, intermittent wet weather pushed mosquito control operations to balance their focus between seasonal marshes and impounded areas with treatment of residential sources.

Bair Island was inspected on April 1 and 14. Mosquito control technicians treated 12.5 acres on section A12 by Argo and 26 acres on B1 on foot. Larvae of the winter salt marsh mosquito were detected but subsequent trapping has indicated no significant adult mosquito numbers emerging from this property.

Technicians also treated 2,488 backyard fishponds and water under 24 buildings, as well as 108 ditches and drainlines, and 278 neglected swimming pools.

Larval breeding sources at sewer plants in San Mateo, Burlingame, South San Francisco and Half Moon Bay were treated this month. In some cases, more inspection and treatment than usual were necessitated by excess standing water from the frequent rains.



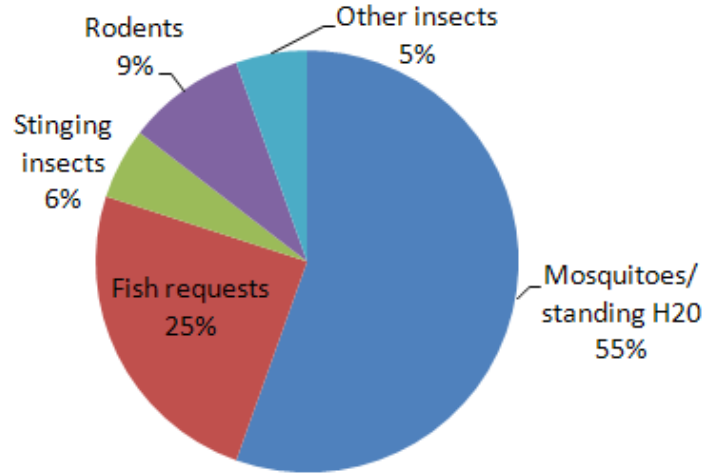
Mosquito control technician Danielle Hern scatters larvicide pellets to control mosquitoes in pockets of water in the pile.



## Operations—Service Requests

District staff responded to 124 requests for service in April. Eighty-eight of these requests were related to mosquitoes (mosquito complaints, requests for mosquito fish delivery, and reports of standing water).

| Reason for Request        | # Requests |
|---------------------------|------------|
| Mosquitoes / standing H2O | 61         |
| Fish requests             | 27         |
| Stinging insects          | 6          |
| Rodents                   | 10         |
| Other insects / ticks     | 6          |
| Other                     | 1          |
| <b>TOTAL:</b>             | <b>124</b> |



**Tick testing notes:** Residents often request that ticks that have bitten them be tested for Lyme disease. Please note that the district can only conduct this test on **live** Western black-legged ticks (*Ixodes pacificus*). The best way to transport a live tick to the district is to place it in a tightly-closed jar or ziplock bag with a moistened piece of paper towel to maintain humidity. The entomology lab is happy to identify any submitted ticks, insects, or other arthropods for county residents.

For additional information on San Mateo County ticks, visit: <http://www.smcmad.org/ticks.htm>

## West Nile Virus Update

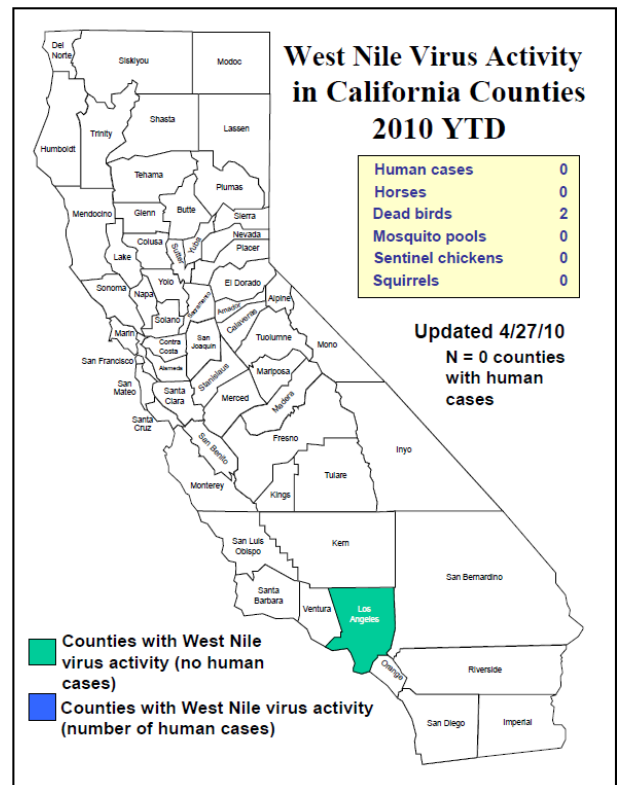
### Statewide:

As of April 27, 2010, two dead birds (1% of birds tested) have been found positive for West Nile Virus (WNV) in California. This is fewer than reported in March because the state has adjusted their reporting to differentiate between new infections of WNV (recent infections) this season and cases acquired in the past (chronic infections). The two recent WNV-positive dead birds this year come from Los Angeles County (see map at right).

There have not been any human cases of WNV reported so far this year in California. Similarly, no cases had been reported at this time last year.

### San Mateo County:

Twenty-five dead birds have been reported in San Mateo County to date this year. Four of these birds were in suitable condition for testing; none have tested positive. Sentinel chicken testing began in April and is ongoing on a bi-weekly basis.





## Sewer Gas Monitoring

Recently, the district’s operation and laboratory staff completed training on monitoring for the presence of harmful gases and low oxygen levels in confined spaces. This training is in response to an Occupational Safety and Health Administration (OSHA) requirement that sewer systems must be atmospherically monitored prior to entry. The monitoring device (M40) will emit an audible alarm if atmospheric conditions do not meet certain safe conditions. This OSHA regulation will affect the district’s mosquito surveillance and rat program activities that require regular access to underground sewage lines.

A joint operations/lab project planned for this coming summer will characterize the atmospheric conditions



Theresa Shelton takes gas level readings on a typical sewage line access point.

present in sewer lines throughout the county and identify high risk areas. Areas to be tested will include industrial, mixed-use and residential lands, and landfill. Consideration is also being given to atmospherically testing confined spaces under buildings that are regularly scheduled for mosquito breeding inspections.

In 2005 and 2009, PG&E experienced underground vault explosions in San Francisco. This month, a major sewage line explosion occurred in Texas, injuring two children. Although San Mateo County does not have a history of underground explosions, the district takes necessary precautions to maintain the safety of district staff and the community.



M40 atmospheric monitoring device.

## Upcoming Events

Mark your calendars! Be sure to visit the district educational booth at the following upcoming community events:

**May 22—May 23 San Carlos Hometown Days**

**June 5—June 6 Foster City Art & Wine Festival**

**June 12—June 23 San Mateo County Fair**



Current and former district staff at various community events: The San Francisco Insect Zoo 30th Anniversary Celebration, 2009 (left), Woodside Environmental Fest, 2004 (center), and Portola Valley Earth Day Fair 2010 (right).



"An Independent Special District  
Working for You Since 1916"

SAN MATEO COUNTY  
MOSQUITO AND VECTOR CONTROL

1351 Rollins Road  
Burlingame, CA 94010

Phone: 650-344-8592  
Fax: 650-344-3843  
[www.smcmad.org](http://www.smcmad.org)

The San Mateo County Mosquito and Vector Control District is an independent, Special District funded by a property tax voted in by individual cities. Our mission is to safeguard the health and comfort of our citizens through a planned program to reduce mosquitoes and other vectors in an environmentally responsible manner.

|  | Extension |
|--|-----------|
| Robert B. Gay, Manager_____                | 12        |
| Chindi A. Peavey, Laboratory Director_____ | 32        |
| Angie Nakano, Vector Ecologist_____        | 31        |
| Tina Sebay, Vector Ecologist_____          | 38        |
| Theresa Shelton, Vector Ecologist_____     | 44        |
| James Counts, Operations Director_____     | 16        |
| Jo Ann Dearman, Finance Director_____      | 11        |

*"A VECTOR is any animal that can transmit disease to animals or people."*

### Brown Widow Spiders

The brown widow spider, *Latrodectus geometricus*, has been expanding its range in California since its establishment in the state in 2003. Specimens were first found in Torrance, and it has since become common in Los Angeles and San Diego. It is expected to continue settling new territory in southern California and could potentially move northward into central California. The UC Riverside Center for Invasive Species Research is tracking the spread of this species. To date, this species has not been found in San Mateo County.

The brown widow is in the same genus as the black widow, but has a much less toxic bite. A typical reaction to a brown widow bite is pain when it is inflicted and a red mark. Brown widows prefer similar habitats to black widows (secluded areas around buildings, logs and branches, empty buckets, under eaves, mail boxes, entryway corners, garages) and might be displacing black widows, which could reduce the risk of dangerous spider bites. However, because the brown widow inhabits more exposed areas than the black widow, its spread could increase encounters between humans and widow spiders.

Control of brown widow is the same as for other spiders. Minimizing clutter in the garage and around the house will limit nesting areas. In cases of severe infestations, commercial insecticides can be sprayed in crevices and holes.



The brown widow spider has a mottled brown and tan abdomen with black markings.  
Photo by Richard S. Vetter, Department of Entomology, University of California Riverside



The hourglass on the underside of the brown widow is more orange compared to the bright red color of the black widow.  
Photo by Richard S. Vetter, Department of Entomology, University of California Riverside