



Entomology Report

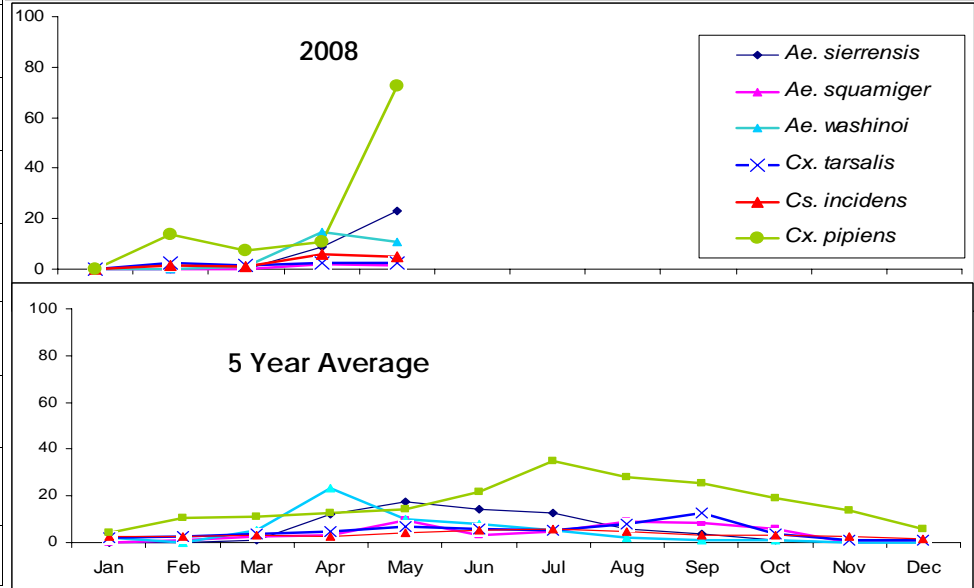


May 2008

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Adult Mosquito Populations in CO2 Traps



Mosquito Control Operations

Underground sources, (storm drain catch basins and utility vaults) were a major focus of operations this month. 30,949 catch basins were treated in May by permanent and seasonal staff. 1,937 utility vaults were treated with time-release briquettes in May. Technicians completed the majority of the vault treatments on May 11 and 18.

This month, technicians began walking the length of creeks in urbanized areas to survey for mosquito larvae and apply treatment. Creeks are treated with environmentally-friendly materials that prevent mosquitoes from developing to the adult stage but do not affect other organisms. Other sources treated this month include:

- 636 Backyard fishponds and fountains
- 201 Containers
- 84 Ditches and drain lines
- 83 Creeks
- 117 Marshes and impounds
- 98 Neglected swimming pools
- Water under 12 buildings



Mosquito Control Technician Kim Keyser sampling for mosquito larvae in a creek



Service Requests



Technician Tina Sebay treats a yellow jacket nest in a resident's lawn.

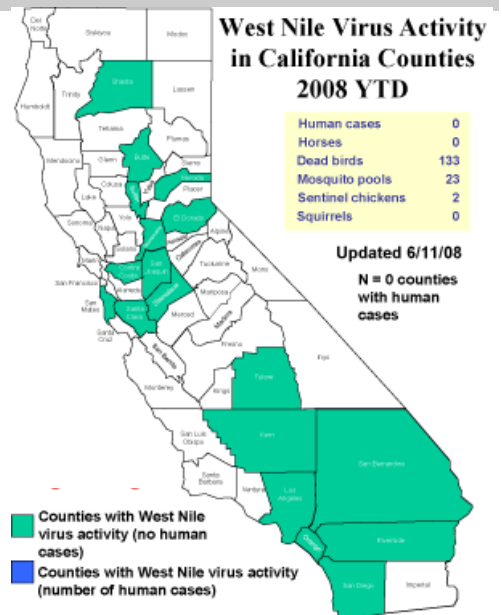
District staff responded to 192 service requests in May. These included:

- 85 mosquito requests
- 16 reports of standing water
- 16 mosquito fish requests
- 23 stinging insects requests which included:
 - 8 ground nesting yellow jackets
 - 6 paper wasps
 - 9 European honey bees which were **not** treated
- 9 rat inspection requests
- 43 other requests (insect identification requests, tick testing, etc.)

West Nile Virus Update

Thus far, in San Mateo County 170 dead birds have been reported. Of these, 32 were suitable for testing and one was found positive for WNV. The positive dead bird was found May 15 in South San Francisco. Only two dead squirrels have been reported, of which one was tested and found negative for WNV.

In 2008, 133 dead birds have tested positive for West Nile Virus (WNV) in eighteen counties in California. In the Bay Area, Contra Costa County has detected one WNV positive dead bird and one positive mosquito pool. Additionally, Santa Clara County has detected 3 WNV positive dead birds and one positive mosquito pool. There have been no human or horse cases of WNV in California in 2008. By this time last year, a human and a horse had become infected with WNV.



Public Education

The District participated in two local fairs this month, the San Carlos Hometown Days, May 17 and 18, and the Foster City Art and Wine Festival, May 31 to June 1. These festivals have offered a great opportunity for staff to interact directly with residents of San Mateo County. Visitors to the booth were able to ask District staff specific questions pertaining to mosquito problems in their area.

May Events

May 1-2	District Vector Ecologist and Manager attended Quarterly Meeting of MVCAC
May 14	District staff met with State Water Quality Control Board on Source Reduction
May 15	Meeting with County Health Department on West Nile Virus
May 16	Presentation to class at Stanford University on disease vectors
May 30	District staff participated in Jasper Ridge Preserve Coordinating Committee meeting

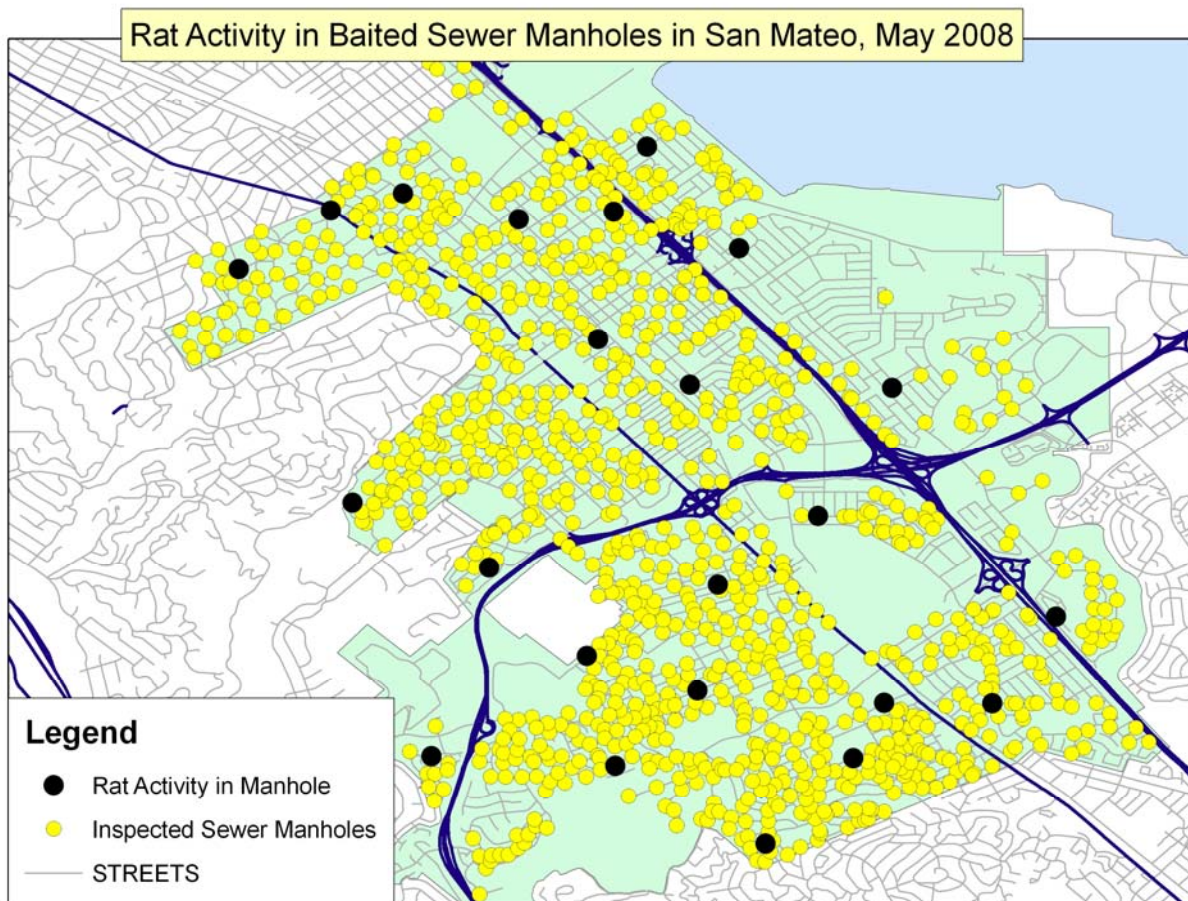


Rat Activity in Baited Sewer Manholes

In May, the District began overseeing contracts for control of Norway rats in sewer systems. The contracts are an agreement between individual cities and Dewey Pest Control (DPC) for installation of bait blocks in sanitary sewers. DPC inspects the blocks once a month and reports signs of rat activity. The District is developing a database and associated maps to store and analyze the results of these inspections. The inspection data can be displayed on the map to show patterns of rat activity in each city. So far, District staff have completed maps and entered inspection data for the month of May for the cities of San Mateo, Redwood City and South San Francisco. The figure below shows an example of the results of inspections in one city (San Mateo). The location of inspections is illustrated by the yellow circles. Rat activity detected in May is represented by black circles.

Norway rats tend to live and travel underground or at ground level. Sewer lines can act as conduits allowing the rats to access food in homes or businesses while remaining hidden and safe from predators. Rat activity concentrated in a specific area can indicate breaks in the sewer line near a readily available food supply. In addition to keeping rat populations in check, sewer line baiting serves as a monitoring system, indicating problem areas that can become the focus of further control efforts. In the city of San Mateo, rat activity appears to be relatively low and evenly distributed throughout the city. The active sites do not show any specific areas of concentrated activity and do not follow any readily evident geographic features, such as creek channels or culverts.

District staff will continue to develop the monitoring tools seen here and expand their use as inspection results are reported to us.





"An Independent Special District
Working for You Since 1916"

SAN MATEO COUNTY
MOSQUITO AND VECTOR CONTROL

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The San Mateo County Mosquito and Vector Control 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, Vector Ecologist	32
Angela M. Rory, Assistant Vector Ecologist	31
Angie Nakano, Assistant Vector Ecologist	44
Lauren Couture, Assistant Vector Ecologist	38
James Counts, Supervisor	16
Karen Williams, Finance Administrator	11

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

New Repellent IR3535

The Centers for Disease Control and Prevention (CDC) recently updated their recommendation list for mosquito repellents. A few years ago Picaridin and Oil of Lemon Eucalyptus were listed as effective and safe mosquito repellents, along with DEET. This May, the CDC added IR3535, or Merck 3535, to that catalog. Oil of Lemon Eucalyptus and IR3535 are derived from natural resources and are comparable in effectiveness to DEET and Picaridin.

IR3535 is the active ingredient in Avon's Skin So Soft line of insect repellents. IR3535 had been used safely as an insect repellent in Europe for twenty years before being registered by the Environmental Protection Agency in 1999 for sale in the United States. Subsequent testing found that IR3535 is comparable to low (5-20%) concentrations of DEET. CDC recommends IR3535 as an option for those who may be at risk for mosquito bites for a short time, about 1-2 hours.

Higher concentrations of active ingredient provide longer duration of protection, regardless of the active ingredient, although concentrations above ~50% do not offer a marked increase in protection time. Products with <10% active ingredient will offer protection for a shorter duration, often from 1-2 hours. If your time outdoors will be limited, reduce any risk of adverse reactions by using a lower -percentage product. If you start to get mosquito bites, reapply the repellent according to the label instructions.



Always apply repellent according to label instructions.

For more information visit : <http://www.cdc.gov/ncidod/dvbid/westnile/repellentupdates.htm>