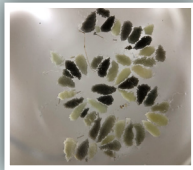


PREVENT MOSQUITOES BY ELIMINATING THE MOSQUITO LIFECYCLE

Mosquitoes have four distinct developmental stages: egg, larva, pupa and adult. Mosquitoes require water to complete their life cycle. Prevent mosquitoes from breeding by eliminating or managing standing water.

EGGS

Most mosquitoes lay their eggs on or near water. Some species lay individual eggs, and some species lay egg rafts. A mosquito egg raft contains approximately 100 to 400 eggs and the entire egg raft can be the size of a single grain of rice or smaller. The eggs hatch into larvae within a few days or months, depending on the species.



Mosquito egg rafts. Eggs are lighter in color when first laid.

LARVAE

The larva or "wiggler" comes to the surface to breathe and feeds on bacteria in the water. In a matter of days, the larva will molt (shed its skin) four times. On the fourth molt it will change into a pupa.

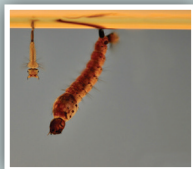
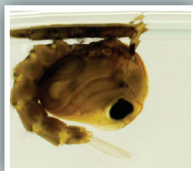


Photo courtesy of Ary Farajollahi, bugwood.org

PUPAE

The pupa or "tumbler" cannot eat. It breathes through two tubes on its back. The adult mosquito grows inside the pupal casing and within a few days, when it is fully developed, it will split the casing and emerge to complete the life cycle, or metamorphosis, of the mosquito.



ADULTS

The newly emerged adult mosquito rests on the surface of the water until it is strong enough to fly away.



Photo courtesy of Joseph Berger, bugwood.org

ABOUT CONTRA COSTA MOSQUITO & VECTOR CONTROL DISTRICT

Protecting Public Health Since 1927

Early in the 1900s, Northern California suffered through epidemics of encephalitis and malaria, and severe outbreaks of saltwater mosquitoes. At times, parts of Contra Costa County were considered uninhabitable resulting in the closure of waterfront areas and schools during peak mosquito seasons. Recreational areas were abandoned and Realtors had trouble selling homes. The general economy suffered. As a result, residents established the Contra Costa Mosquito Abatement District which began service in 1927.

Today, the Contra Costa Mosquito and Vector Control District continues to protect public health with environmentally sound techniques, reliable and efficient services, as well as programs to combat emerging diseases, all while preserving and/or enhancing the environment.

Contra Costa Mosquito & Vector Control District Services for Contra Costa County Residents

MOSQUITOES

Inspection and control including placement of **MOSQUITOFISH** in residential water features

YELLOWJACKETS

Ground-nesting only

BEEES

Inspection and education

TICKS

Tick identification

RATS AND MICE

Inspection and advice

SKUNKS

Inspection and assistance

PUBLIC EDUCATION

Literature and presentations

Rev. 03/24



CONTRA COSTA
**MOSQUITO
& VECTOR
CONTROL**
DISTRICT

Contra Costa Mosquito & Vector Control District
155 Mason Circle • Concord, CA 94520
(925) 685-9301 office • (925) 685-0266 fax
www.ContraCostaMosquito.com

MOSQUITOES AND CEMETERIES



CONTRA COSTA
**MOSQUITO
& VECTOR
CONTROL**
DISTRICT

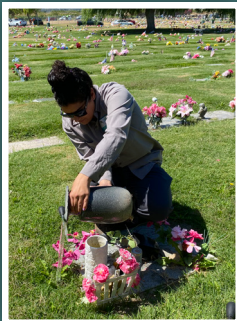


PROTECTING PUBLIC HEALTH SINCE 1927

Cemeteries can be a significant source of mosquitoes in a community. Anything that can hold just a tablespoon of water can be a source of mosquitoes, such as vases, vaults, uneven ground areas in lawns, flower pot saucers, bird baths, clogged rain gutters, and more.

It is important that cemetery workers maintain, manage, or eliminate all types of standing water on a regular basis on cemetery grounds and

buildings, as well as provide education to visitors about the importance of ensuring no standing water is present at cemeteries.



A District technician empties a cemetery vase which was found to contain mosquito larvae.

MOSQUITO REDUCTION BEST MANAGEMENT PRACTICES FOR CEMETERIES

1. Seeking alternatives to in-ground or mounted flower vases which hold any water
2. Filling vases to the top with sand and advising visitors not to dump out the sand
3. Encouraging the use of artificial flowers and sand in vases
4. Encouraging the use of plastic vases with holes on the bottom so water cannot accumulate
5. Telling visitors to lay flowers on top of graves instead of placing flowers in vases
6. Raising community awareness such as posting signage around the cemetery showing proper vase use
7. Not allowing visitors to access water and providing buckets of sand, shovels, and paper bags nearby with signage on how visitors can fill vases with sand
8. Not allowing objects at grave sites that can hold water such as cans, bottles, or other containers
9. Repairing leaks or damaged irrigation system components to prevent standing water
10. Making sure buckets are stored in a way that they do not hold water
11. Ensuring maintenance area is free of standing water and any items that can hold water including tires, buckets, backhoe buckets, grave liners, urn vaults, and headstones stored in the yard
12. Ensuring the proper disposal of trash, recycling debris, and old vases
13. Notifying the Contra Costa Mosquito and Vector Control District by calling (925) 685-9301 if there are any issues at the cemetery which can produce mosquitoes, such as a broken pipe or leaking faucet that cemetery staff are unable to fix for more than 72 hours



Place buckets of sand, paper bags, and a small shovel by water faucets with signage on how to fill vases with sand.

FACTS ABOUT MOSQUITOES

1. Mosquitoes need water to complete their lifecycle.
2. It takes only five to seven days for mosquitoes to go from egg to adult during warm weather.
3. Just 45 drops of water are sufficient to produce hundreds of mosquitoes.

ITEMS THAT CAN HOLD WATER AND POTENTIALLY PRODUCE MOSQUITOES

Use this list to ensure there is no standing water at sources which potentially produce mosquitoes:

