



INVASIVE MOSQUITO SPECIES IN CALIFORNIA



CONTRA COSTA
**MOSQUITO
& VECTOR
CONTROL**
DISTRICT

Help Us Detect Invasive Mosquito Species

Early detection of these invasive mosquitoes will help us control them. We cannot do it alone. We need your help. Always report mosquito problems, especially aggressive daytime biting mosquitoes, to the Contra Costa Mosquito and Vector Control District by calling us at **(925) 685-9301** or visiting us online at **contracostamosquito.gov**.

Why The Concern?

Two invasive mosquito species, found in several areas of California, are capable of transmitting the viruses that cause several diseases including dengue fever, chikungunya, yellow fever and Zika.



photo courtesy Jim Gathany



photo courtesy Susan Ellis

Commonly referred to as the Yellow Fever mosquito, the *Aedes aegypti* mosquito can be found around the world in tropical and subtropical areas and has been found since 2011 in different locations throughout California. *Aedes aegypti* is a small, dark mosquito with a white violin shaped marking on its back, and has the ability to transmit dengue fever, chikungunya, yellow fever, and other viruses. This mosquito is typically active during the daytime. *Aedes albopictus* is a small, dark mosquito with a white stripe on its back and banded legs. This mosquito not only has the ability to transmit dengue fever, chikungunya, and yellow fever viruses, but it has also been found infected in nature with West Nile virus.

Common Characteristics of Both Species

- These mosquitoes are aggressive daytime biters that feed both indoors and outdoors.
- They are approximately $\frac{1}{8}$ to $\frac{1}{4}$ of an inch in size.
- Their peak feeding times are during the early morning and late afternoon but can feed throughout the day.
- They prefer biting people but also feed on other domestic animals – mostly mammals.
- The entire aquatic cycle (i.e. from egg to adult) can occur in one week. The life span for adult mosquitoes is around one to up to four weeks.
- They have a short flight range, so egg laying sites are likely to be close to where the mosquitoes are found.
- Eggs are laid on dry surfaces, over a period of several days, are resistant to drying out, and can survive for six months or longer. These mosquitoes remain alive through the winter in the egg stage, and when the eggs are covered with water in warm weather, they are able to grow from egg to adult.

Where These Invasive Species Lay Their Eggs

These mosquitoes are commonly found in urban, suburban, and rural areas, as well as edges of forested areas. Backyards are the primary source for mosquito production. Anything that can hold water for more than a few days has the ability to produce mosquitoes. Common sources include:



plant saucers



bird baths



tires



cemetery vases



toys



pet bowls



wheelbarrows



tropical plants

Protect Yourself from Mosquitoes

Always report mosquitoes, especially if they are aggressive daytime biting mosquitoes. Drain and dump any items that could hold water around your home and property at least once a week. Cover empty containers. Check that gutters are not holding water and cover rain barrels with tight-fitting fine mesh screening so that mosquitoes cannot enter. For water features like a decorative pond, contact the District and request the District's mosquitofish service. For smaller water features such as bird baths or yard drains, place a natural bacterial larvicide product in the water, or contact the District for advice. The best way to protect yourself from mosquito-transmitted diseases is to avoid mosquito bites when going outdoors. Apply an EPA-registered insect repellent containing the active ingredient DEET, picaridin, oil of lemon eucalyptus, or IR3535. Be sure to follow *all* of the label instructions. These will provide effective protection against mosquito bites when used properly.

ABOUT CONTRA COSTA MOSQUITO AND 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 and Vector Control District Services for Contra Costa County Residents

MOSQUITOES

Inspection and control
including placement of
MOSQUITOFISH in residential
water features

TICKS

Tick identification

RATS AND MICE

Inspection and advice

YELLOWJACKETS

Ground-nesting only

SKUNKS

Inspection and advice

BEEES

Inspection and education

PUBLIC EDUCATION

Literature and presentations



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