

For more information about mosquitoes in your area, please ask for our *Mosquitoes of Marin and Sonoma Counties* and *Are you raising Mosquitoes in your Backyard?* brochures.



OUR MISSION

The Marin/Sonoma Mosquito and Vector Control District, founded in 1915, protects the health and welfare of the communities it serves from mosquitoes and vector-borne diseases by utilizing cost-effective, environmentally responsible integrated vector management practices.

OUR SERVICES

Our programs and services are funded through property taxes and benefit assessments and are provided at no additional cost to all residents of Marin and Sonoma counties.



**Marin/Sonoma Mosquito
& Vector Control District**

**595 Helman Lane
Cotati, CA 94931**

**Monday through Friday
7:00am to 3:30pm
707.285.2200**

www.msquito.org



PHOTO CREDITS:

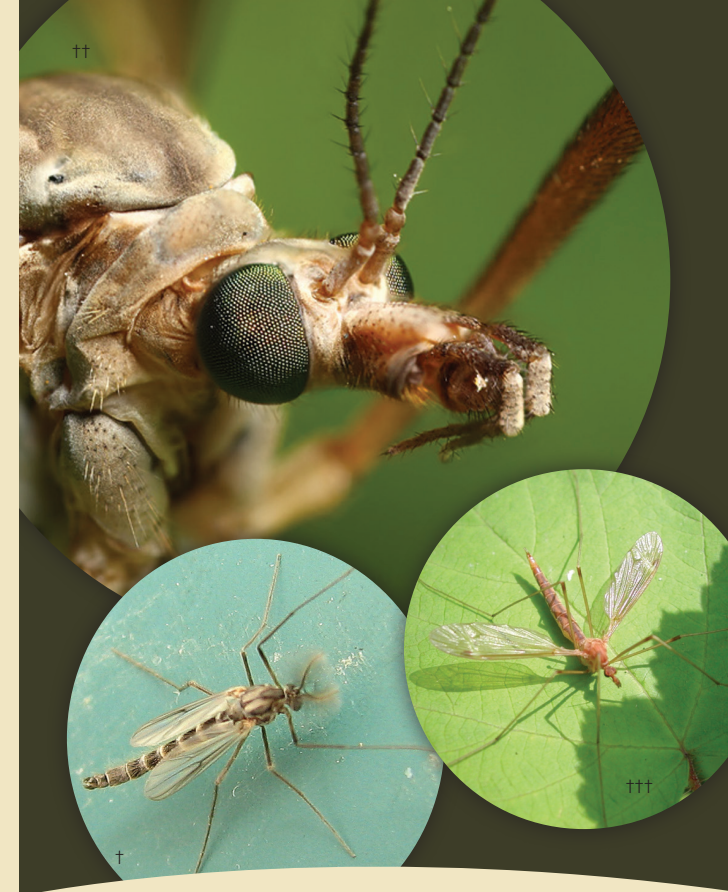
COVER

- † Midge Urtica–J. Forman Orth
- †† Crane Fly–Brian Valentine (aka LordV)
- ††† Crane Fly–Pennsylvania Department of Conservation and Natural Resources-Forestry Archive, www.Bugwood.org

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- * Biting Midge–Wilson, Darpel & Mellor (2008)
- ** Non-Biting Midge–D. Cappareat, MSU, www.Bugwood.org
- *** Fungus Gnat–Johnny N. Dell, www.Bugwood.org
- **** Crane Fly– © 2008 Dr. Mark S. Brunell

INSECTS THAT RESEMBLE MOSQUITOES



PROTECTING PUBLIC HEALTH SINCE 1915

ABOUT INSECTS THAT RESEMBLE MOSQUITOES

Marin and Sonoma counties are home to numerous insects that closely resemble mosquitoes. Many of these insects emerge in large numbers during the early spring, causing the public great alarm. The information in this brochure can help identify these insects that are often mistaken for mosquitoes.

BITING MIDGES

Biting midges or “no-see-ums” are very small, grayish colored flies about the size of an ordinary pinhead.

The larvae are aquatic or semi-aquatic, commonly found in areas such as fresh or salt water, coastal lagoons, estuaries, tidal flats, or habitats with decaying plant materials, sandy, or alkaline soils.

Adults feed on blood and produce very painful, burning bites. Their bites usually produce a temporary swelling that may become vesicular, rupture, and produce an open lesion that may exude moisture for weeks.



Personal protection is the best defense against biting midges; wear protective clothing such as long sleeves and pants, and apply repellent to exposed skin when in areas where these insects are present.

NON-BITING MIDGES

Non-biting midges are small flies that look like mosquitoes. While these insects do not pose a health threat, they can be a serious nuisance, particularly in communities adjacent to large aquatic habitats.

Adult midges are short-lived and weak flyers. During peak emergence, massive swarms of these midges can cover houses, cars, and other structures.

Homes and buildings with outside lighting will attract large numbers of non-biting midges. To discourage the congregation of these insects, move lights away from areas such as doorways, windows, patios, etc.



Replacing mercury vapor lights with yellow or sodium vapor lights will help reduce concentrations of these insects as well. Blacklight traps (bug zappers) will kill midges, but unfortunately often attract more midges into the area than are killed.



Swarming midges

FUNGUS GNATS

Fungus gnats are common in the fall, spring, and early summer. They have slender legs and segmented antennae that are longer than their head. Fungus gnats are generally 1/16 to 1/8 of an inch long with light grey to clear wings. They are weak fliers and can be found near potted plants or resting on foliage and leaf litter.

Female fungus gnats lay their eggs in moist organic material or potting soil. The larvae feed on fungus, preferring leaf litter and decaying vegetation.

Adult fungus gnats can be very abundant at times but do not cause harm to people, plants or animals.



CRANE FLIES

Crane flies are tan in color with long legs and slender bodies reaching 1 to 2 inches in length. The larvae live in moist soil, muddy water or decomposing material.

Adult crane flies are sometimes called “Texas mosquitoes” or “mosquito hawks”, but are most commonly known as “mosquito eaters”. This is a misnomer because in actuality, crane flies do not eat adult mosquitoes. Some species of crane flies feed on nectar while others do not feed at all.

These non-biting insects do not constitute a health problem but can create an annoyance when found inside homes or in large numbers.

