

# INSECTS RESEMBLING MOSQUITOES

## GENERAL INFORMATION

There are a number of small flying insects present in Orange County that residents frequently confuse with mosquitoes. Though closely resembling mosquitoes, these insects are not equipped with the specialized mouth parts required to bite and take blood. Brief descriptions of the common mosquito-like flies or "gnats" most often encountered by Orange County residents are included on this information sheet.

### Midges (Chironomidae)

Midges are the most prevalent group of mosquito-like flies that invariably are mistaken for mosquitoes. Midges are harmless and do not bite. They can be distinguished from mosquitoes by the absence of the beak (proboscis) and scales on the wings. When at rest, midges hold their wings in an inverted "V" pattern with the forelegs extended outward. Mosquitoes fold their wings over the back of the body with the fore legs "grasping" the surface upon which they have landed. The larvae of midges develop in all types of aquatic sources including, rivers, lakes, canals, and ornamental ponds. A few species have hemoglobin and are called "blood worms." Large swarms of midges can occur periodically throughout the year at which time they can present quite a nuisance and a great deal of concern.

### Dixid Midges (Dixidae)

This group of midges also resembles mosquitoes and will swarm during the evening near their aquatic breeding sources. Like the previous midges, these insects also lack a proboscis and scales on the wings. The larvae resemble and often are confused with the larvae of malaria mosquitoes (*Anopheles*). Periodically, dixids produce large emergences, but only in local and certain ecological situations.

### Moth Flies (Psychodidae)

Moth flies are small and "fuzzy" looking with speckled wings held in a tent-like posture over the back of the body. The adults are commonly found near highly polluted water sources and frequently will emerge in large numbers from abandoned swimming pools, ornamental ponds, and flooded utility vaults. Adults are known to emerge indoors from sink traps and bathtub drains, and are often seen on the walls of bathrooms and showers.

### Crane Flies (Tipulidae)

Crane flies, popularly known as "mosquito hawks," are not predacious and usually many times larger than a typical mosquito. They are common insects found in residential areas throughout Orange County. Adults are strongly attracted to porch lights where their presence becomes a familiar site to most residents. The larvae live in loose soil or organic matter and feed on the roots of plants. Although they resemble mosquitoes, crane flies are harmless and do not bite. When conditions are right in the spring, large larval populations may develop and produce large swarms of adults.

### Fungus Gnats (Mycetophilidae)

These small dark flies are mostly 1/8 to 3/8 inches long. They are found here throughout the year where they inhabit damp, decaying organic matter such as leaf mold, manure, and organic fertilizers and mulches where the larvae feed, especially on fungus growth. Occasionally they may be found breeding within planter boxes for house plants where the moisture favors them. The larvae of the various species are mostly whitish, slender maggots with dark heads. Development from the egg stage to the adult gnat usually takes two to four weeks. The adults are often attracted to lights at night.

### Dance Flies (Empididae)

Dance flies appear like mosquitoes by the way they swarm in sunlit areas in backyards and other sheltered situations. The vertical movements of the swarming adults gives them their common name. Daytime activity of dance flies is not typical of mosquitoes which characteristically begin their flights shortly after sunset.

### Biting Midges, Punkies, and No-See-Ums (Ceratopogonidae)

These tiny bloodsucking flies are vicious daytime biters that breed in either saline or alkaline waters associated with vernal pools, coastal salt marshes, and mud-cracked flatlands. Adults of most species are less than 1/16 inch long and persons being bitten seldom witness bites in progress which gives these flies their colloquial name as "no-see-ums." Individuals sensitive to their bites often will develop itching ulcerated sores that may persist for several weeks.

## Mayfly (Ephemeroptera)

Adult mayflies are recognized by the way they hold their wings at rest and presence of two or three long "caudal" filaments at the tip of the abdomen. Though not even closely resembling mosquitoes, their seasonal occurrence at porch lights and on the walls of buildings near their aquatic breeding sources invariably attracts the attention of some concerned residents. The nymphs of mayflies develop in all types of aquatic habitats where they form an important part of the food

chain. Adults are among the most short lived in the insect world surviving perhaps only hours to a few days after emergence.

## Black Flies (Simuliidae)

Black flies are small, humpbacked, grayish-black flies that can inflict a painful and irritating bite during daylight hours to both humans and animals. The larvae are typically found attached to objects such as gravel, rocks, or plants in flowing streams.

## MOSQUITO-LIKE FLIES AND RELATIVES



Dixid Midge  
(Dixidae)



Midge  
(Chironomidae)



Mosquito  
(Culicidae)



Fungus Gnat  
(Mycetophilidae)



Black Fly  
(Simuliidae)



Crane Fly  
(Tipulidae)



Mayfly  
(Ephemeroptera)



Owl Midge-Moth Fly  
(Psychodidae)



Black Gnat  
(Ceratopogonidae)  
"bites"



Dance Fly  
(Empididae)



Gall Midge  
(Cecidomyiidae)



ORANGE COUNTY VECTOR CONTROL DISTRICT  
13001 Garden Grove Boulevard, Garden Grove, CA 92843  
(714) 971-2421 • (949) 654-2421  
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