

Midges

Non-biting Insects



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What are midges?

Midges are small, harmless flying insects that resemble mosquitoes. The Alameda County Mosquito Abatement District is aware that midges are emerging in large numbers in areas of the county that are near channels, creeks and large bodies of water. These insects pose no threat to pets or people and since they do not transmit any diseases, we do not control them. Midges are an important part of the food chain for local and migratory waterfowl. These insects are highly attracted to lights and "bug zappers." Minimizing the use of outside lights will help to reduce their presence near your home. Should you choose to use a "bug zapper," keep it far from your residence to maximize its effectiveness.

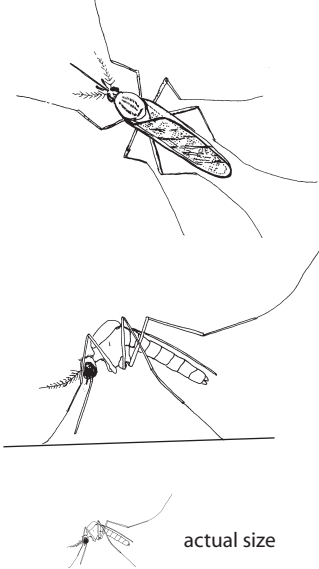
Male midges form large swarms when temperature, humidity, and light conditions are right for their species. Different species swarm under different environmental conditions and usually only during a specific time of the day. When more than one type of midge is present in a neighborhood, there may be the appearance of having swarms all of the time. Adult midges are short lived, living usually less than 1 week. The adult life stage is merely to swarm, mate, and lay eggs. Adult midges can be easily identified by their habit of resting on surfaces with their bodies held very close to the substrate. Other midge-like insects (and mosquitoes) stand on the ends of their legs, with their bodies clearly not touching the substrate they are resting on (see next page).

Although midges do not bite, they often occur in large numbers and can be annoying. The following suggestions may help minimize their annoying presence:

- 1) Outside lights can be changed to yellow, which are less attractive to these insects.
- 2) Doors should be kept closed and windows tightly screened to prevent midges from entering your home.

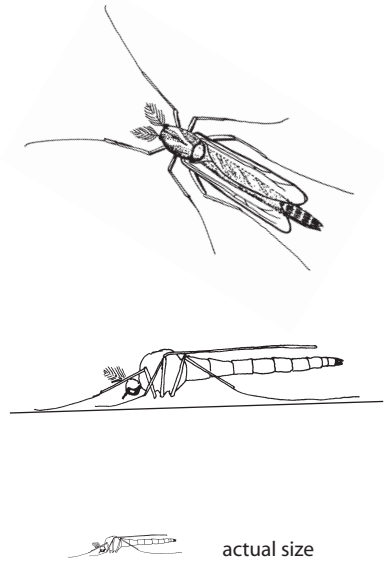
Identifying characteristics

Typical mosquito



- 1 - bites with its proboscis
- 2 - wings are longer than body
- 3 - always develops in standing water
- 4 - can carry diseases
- 5 - rests on objects with its body well off of the surface

Typical midge



- 1 - cannot bite (has no proboscis)
- 2 - wings are shorter than body
- 3 - develops in mud on the bottom of lakes and ponds
- 4 - cannot carry diseases
- 5 - rests on objects with its body almost touching the surface

Commonly encountered midges

Tanypus grodhausi - This is one of our most commonly encountered midge, being seen from late spring through early fall. Large populations exist throughout Alameda County's tidal and diked seasonal wetlands and this species is commonly associated with sewage oxidation ponds. Larvae are found in the bottom sediments and are carnivorous, free-living, active swimmers. Adults are light tan or grey in color, have lightly spotted wings, and are approximately one-quarter of an inch long.

Chironomus decorus - The larvae, known as blood worms, are filter feeders that construct mud tubes on the bottoms of lakes, ponds and streams. The immature stages of this midge prefer oxygen deficient water and are known to breed in sewage oxidation ponds. Larvae feed on microorganisms and detritus and have been collected from mud samples at depths up to 32 feet. This midge can produce up to five generations per year in warmer climates and is most commonly seen during spring and summer.

Chironomus plumosus - This is the largest midge in North America, measuring up to one inch in length. Larvae, also known as blood worms, are usually reddish in color and are found in the muddy bottoms of large rivers, gravel pits and eutrophic lakes. The immature stages inhabit tubes constructed of small particles and can be found at depths varying from 18 to 60 feet. The feeding habits for the larvae of this midge are very similar to *Chironomus decorus* (see above). Adults occur year round but are most abundant during late spring and early summer.

Dicrotendipes spp. - Larvae can occur in brackish water, are commonly found on the surface of submerged aquatic vegetation, and can be found among or on vegetation found on rocks, logs and similar substrata. The immature stages of these midges are commonly associated with *Myriophyllum* spp. (Water-milfoil and Parrot's Feather), *Typha* spp. (Cattails) and algal mats where they construct silken tubes and spend both their larval and pupal stages. Larvae feed on algae, detritus, and small microorganisms that occur in the water. Adults of *Dicrotendipes* spp. have been considered pests due to large emergences and can occur year round, but are most frequently encountered from November through June.