

Mosquitoes vs Midges

It is important for mosquito managers and pest control operators to not only be able to recognise mosquitoes from similar insects, but also be able to identify them to species level where possible. While there may be a wide range of mosquito species detected by surveillance, only a few species may pose a nuisance or public health risk and require management.

Larval mosquitoes may be more readily recognised as 'wigglers' in a container, drain, saltmarsh or ground pool. They are generally distinguished from other aquatic insect larvae by their swollen thorax and lack of leg-like appendages. Most common mosquitoes (e.g. *Aedes* and *Culex* species) also have a terminal breathing tube (siphon), but *Anopheles* species have no siphon, and *Mansonia* and *Coquillettidia* species have a modified siphon which attaches to subsurface aquatic plants.



chironomid midge no swollen thorax- sometimes entirely red colour



Mosquito with swollen thorax and scoop



Biting midge small proboscis



Very small mosquito long proboscis

Adult mosquitoes are sometimes confused with non-biting (Chironomid) midges (see image below) and crane flies, which both do not have a long proboscis. There is also remarkable variation between mosquito species and they do not all look alike. It is important to be able to recognise which are actually mosquitoes.



chironomid midge no proboscis



male *Culex* mosquito long proboscis



Ceratopogonidae / Biting Midge (sand flies)

Smallest (1-3 mm) blood feeding flies. Most active under calm conditions especially dawn and dusk. Adults emerge with new and full moon phases. May attack in large numbers, bites can be irritating and painful.

Occurs in coastal and inland areas, breeding around the edge of water bodies on damp substrate. Not known to transmit any human pathogens in Australia, but can transmit some viruses to ruminant animals.



Chironomid midge – non-biting midge

Small (1-20 mm) flies with long bodies and long legs but no scales on wings and no proboscis.

Feed on nectar or similar substances. Very important part of many freshwater ecosystems.

Breed in moist or wet habitats from brackish estuaries, wetlands, pools in tree holes, low oxygen (heavily polluted) lake sediments to fast flowing mountain streams.

Do not disperse far from the larval habitat. Form large mating swarms in daylight or twilight.

Not associated with transmission of any pathogens (disease).