

GNATS WHAT ARE THESE BUGS?

The infestation of insects at Lake Boga are locally known as non biting GNATS. Recently there have been dense swarms of non-biting gnats causing a nuisance in residential areas, especially adjacent to Lake Boga.

Non-biting gnats or chironomids are one of the most common organisms in both natural and human-made aquatic habitats. Ponds and lakes often become excessively rich in nutrients due to runoff containing contaminants such as decomposing leaf litter, plant and animal waste, fertilisers, soils and detergents.

As a result of this unbalanced ecosystem, pollution tolerant invertebrate species populations boom. Gnats are able to survive in these low dissolved oxygen conditions, therefore these lake systems provide the best breeding habitat. Fortunately unlike mosquitos gnats do not bite, therefore they are not vectors of disease but they are causing considerable community inconvenience

HOW LONG DO GNATS LIVE?

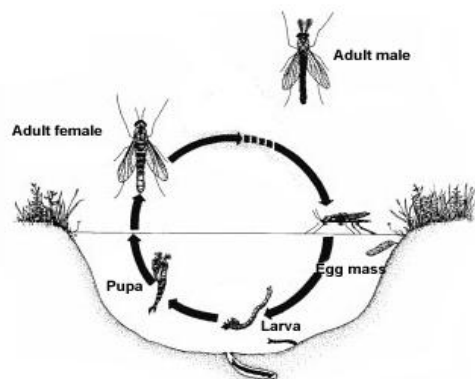
Gnats Life Cycle...

There are four stages in the life cycle of gnats. Eggs are laid in clusters on the surface of the water, and may contain up to 3,000 eggs before sinking to the bottom to hatch. After hatching, larvae burrow into the mud or construct small tubes in which they live.



An Adult gnat

Reference: RUSSELL, R.C. (1996). A Colour Photo Atlas of Mosquitoes of South-eastern Australia. Published by the Department of Medical Entomology, Westmead Hospital and the University of Sydney.



Larvae soon transform into pupae while still in their tubes. After 3 days, pupae swim to the surface and flying adults emerge several hours later only to live for 3 to 5 days.

During Summer the entire life cycle can be completed in 2-3 weeks.

Helpful hints to live with Gnats

High intensity white light has been found to be highly attractive to adults. The most practical action to reduce the number of adults attracted to residences is to reduce or eliminate exterior lighting.

- Keep window blinds/curtains closed and leave porch/ outside lights off during heavy emergence periods.
- Replace incandescent lights with Yellow insect bulbs (25-40 watt bulbs)
- Use subtle walkway/landscape type lighting if necessary.
- Try to avoid floodlights where possible.
- Keep lawns closely mown, reduce the vegetation around your house including pot plants.
- Don't water gardens during the day as surface water will increase humidity attracting the gnats .
- Increase air movement to minimise resting places for gnats, activity reduces with wind speeds over 6 kilometres per hour.



Organic controls



If you are reluctant to use chemicals in your garden, organic insecticides can be useful. These will kill adult gnats, however repeated applications may be necessary.

You can use **Pyrethrum** from garden supplies or make your own!!

Garlic Spray

- 85 grams of unpeeled garlic, 2 tablespoons of mineral oil, 600 ml water, 7 grams of dissolved soap.
- Mix solution and place in trigger pack

Derris Spray

- 120 grams soap 4.5 liters of water
- Mix 60 grams of derris powder (from garden supplies) mix 4.5 litres of water
- Dilute entire mixture in 12 litres of water
- Place in trigger pack

Spray these mixtures at regular intervals to deter the adult gnats

The big Clean up:

Swarms of dying gnats have resulted in a public health issue. To aid the clean up Lower Murray Water (LMW) advise: hard surfaces can be cleaned with a hose fitted with a trigger nozzle.

This should reduce the breeding of maggots in the gnat debris.

LMW encourages the use of pressure cleaners if the owners have access to this equipment.



Over night gnat debris