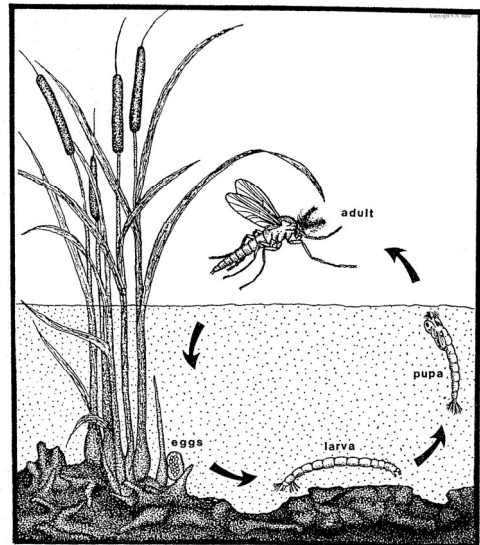


# MIDGES

Midges are small flies of the insect family Chironomidae. They are a major pest in many of Perth's wetlands. Midges are often a nuisance in residential areas near wetlands because they are attracted to lights. Although they do not transmit diseases their sheer numbers can prevent people from enjoying outdoor activities and they are small enough to pass through flyscreens.

Midges have four main stages in their life cycle: egg, larva, pupa and adult. The females lay their eggs in a range of water bodies. The eggs hatch into aquatic larvae known as bloodworms, which live in the sediment and feed on organic debris. The larvae grow and develop into pupae which then rise to the surface of the water and hatch into adult midges.

Bodies of water which are high in nutrients and contain algae can provide ideal breeding grounds for midges. Nutrients which lead to algal growth include such things as detergents and fertilizers.



The control of midges requires an integrated approach. Spraying or fogging will only provide temporary relief and does not address the root causes of the problem. Other methods include chemical control (larvacides), biological control, light traps, modifications of water bodies, public education, and improved environmental management. For long term effective control of midges a number of measures may be required. To establish the best control program the water bodies where breeding may occur need to be sampled to determine the extent of midge breeding.

There are several measures which householders can take to reduce the severity of the midge problem which they experience.

## LIGHTING

Midges are attracted to lights that emit high levels of ultra violet (UV) light (i.e, mercury vapour lights). They are also more attracted to white than coloured lights and lights which emit a large proportion of their energy as heat ( ie normal incandescent globes).

The following steps can be taken to reduce the severity of the problem;

- Reduce the number of outside lights and move them away from doorways.
- Replace large (100watt) incandescent bulbs with smaller (25 or 40watt) bulbs, preferably yellow.

- Use hedges, shrubs and light shades to screen outdoor lights from the wetland. Inside, curtains and blinds can be used.
- Reduce UV reflection around doors and windows by painting white surfaces a darker blue or green.
- Seal all gaps around doors, windows and skylights and keep them closed. If you wish to open them a fine fly-mesh should be installed.
- High-pressure sodium vapour lamps produce minimal amounts of UV light and heat and are an ideal replacement for ordinary incandescent bulbs and fluorescent tubes. They are, however, expensive.

## **LIGHT TRAPS**

Commercially available light traps may also help to reduce midge numbers. These have a "black light" mercury vapour, high UV lamp to attract midges to an electric grill which kills them.

## **INSECTICIDES**

Various insecticides are available. Coopex®, for example, a pyrethroid insecticide has been found to be useful. It is purchased in sachets which are mixed with water and then sprayed on the walls and under the eaves. Test this product on a small area first as it leaves a white residue.

Other sprays are available and it is recommended that you contact your local Council or pesticide supplier for more information.

As with any pesticide, you must read the label and follow the instructions carefully.

## **REDUCE FERTILISER USE AND NUTRIENT RUN-OFF**

Nutrient enrichment is one of the main contributing factors to midge problems. Nutrient inputs can be reduced by minimising fertiliser application and by using slow release brands. Native gardens require only minimal fertilisation and so are a good alternative to the more traditional gardens favoured by many residents.

Phosphorus-free detergents should be used both inside for household applications and outside for tasks such as washing the car. If a phosphorus containing detergent is to be used for the car then it should be washed on the lawn, allowing the grass to utilise the phosphorus rather than on paved areas which often drain straight into wetlands.