

# MISTLETOE, ANTS AND CATERPILLRS

## Living on a plant that lives on a plant.

Mistletoe is an unusual native plant. It does not grow roots into the ground. Instead it grows on the branches of other plants. Most trees can survive this, unless they are already stressed with disease or some other problem.

Some Genoveva Azure butterflies will only lay their eggs on a mistletoe (*Amyema* spp.). A healthy colony of butterflies will keep the mistletoe in check.

## Getting a helping ant.

Some butterflies are helped by ants. One butterfly that is well looked after by ants is called the Genoveva Azure (*Ogyris genoveva*). The ants make a nest for the caterpillars of this butterfly at the base of a tree that has mistletoe growing on it. When the caterpillars climb the tree to feed on the mistletoe, the ants clear the path and chase off spiders and other dangers. The ants then guard the caterpillars as they feed.

## Payment in caterpillar juice.

The ants do not take care of these caterpillars for nothing. The caterpillars have a special gland on their rear end which oozes sweet sugary liquid. The ants carefully collect this and use it for food. (Adult ants can live on this alone if food is scarce).

## A crowded neighbourhood.

During the day the ants guard the caterpillars of the Genoveva Azure as they hide in underground chambers that the ants have dug for them. There can be many chambers around a tree, and often all the trees with mistletoe in an area will have nests at their bases. (Some colonies can cover half a hectare).

## Life cycle.

The female Genoveva Azure butterfly searches out trees that have mistletoe. She also tries to find trees that smell of ants and other butterflies of her own kind. Here she lays her eggs.

The caterpillars, guarded by their friendly ants, eat their way through mistletoe leaves each night. As they grow, they shed their skins until they are big enough to turn into a pupae in the ant chambers. Eventually the adult butterfly bursts from the pupae and crawls out of the chamber to fly away.



Photos above: Adult female Photo RHFisher. Top right, Adult male upper side and underside Photos LFHunt. Right Adult female underside Photo RHFisher.



## The helpers

These ants are the sugar ants *Camponotus consiobrinus* that make the homes for the Geneveva Azure caterpillars and guard them until they turn into butterflies.



Photos above left: Eggs, caterpillars with pupa. Photos LFHunt. Right of text: close up of caterpillar glands and centre right: caterpillar with ant. Photos RHFisher. Above: caterpillar with ants. Photo LFHunt. Right above: mistletoe (*Amyema* sp.). Photo RGrund and Right: close up of *Amyema miquelli* Photo LFHunt.

- Do you know anyone that is getting rid of mistletoe?
- What problems might this cause?
- What other problems can humans cause for this butterfly?

This article was written originally by members of BCSA for the SA Museum exhibition 'Bringing the Butterflies Back' it will shortly be on our new web site. [www.butterflyconservationsa.net.au](http://www.butterflyconservationsa.net.au).