

Piggybacking Plant Parasites

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Mistletoes are often thought of as freeloaders. They live on other plants and draw some of their food needs from their hosts. They are parasites.

On a recent field trip to Stawell we were shown a remarkable sight; a mistletoe growing on another mistletoe; a parasitic piggyback. The host was the very common Drooping Mistletoe (*Amyema pupedula*) with its long, yellowish green leaves while the other had much greener, smaller and rounder leaves. It was the Fleshy Mistletoe (*Amyema miriculosum*). This plant forms smaller clumps, which are often partly hidden by the host. A search of the area revealed another dozen examples of this pairing, mainly growing on Red Box although some were on Yellow Gums.

We were lucky to find a few flowers of the Fleshy Mistletoe, so named because of the texture of its leaves, as well as a very handsome black and white striped caterpillar with long white hairs and orange legs. This is the larva of the Mistletoe Moth which shares a similar colour scheme.

Most mistletoes depend on the services of the Mistletoebird to spread their seeds. This beautiful little bird (the male is black with a scarlet abdomen) has the amazing capacity to eat mistletoe berries and, within an hour excrete a long chain of the extremely sticky seeds. These seeds, if they lodge in a suitable crevice on the branch of a tree are able to germinate and develop into a new plant. Although other birds eat mistletoe fruits it is not believed that they have the same ability to spread the seeds.

While mistletoes like the Buloke Mistletoe have beautiful flowers, the question is often asked whether they are pests or are a normal part of our environment. As with most environmental questions the answer is not simple. They certainly provide safe nesting places for many birds and provide food for even more birds, mammals and insects. Sugar Gliders and possums love the highly nutritious leaves. There is evidence that removal of mistletoes results in a loss of biodiversity. Healthy, unstressed host plants should be able to support a small number of mistletoe clumps. Where there are many trees carrying high numbers of mistletoes it is likely that this is an indication of a degraded ecosystem. Encouragement of native leaf eating mammals such as possums may help to restore the balance.



Photos

Fleshy Mistletoe (*Amyema miriculosum*) flower and Mistletoe Moth caterpillar attached – left.

Harlequin Mistletoe (*Lysiana exocarpi*) flowers

Buloke Mistletoe (*Amyema linophyllum*) – below.

