

Paddock Trees – THE LONELY BATTLEERS OF OUR LANDSCAPE



Paddock trees are often hundreds of years old and have persisted in our landscape after 150 years of land clearance and farming. These remaining trees are survivors from the natural grassy woodlands that would have been present prior to European settlement.

Why were these trees left and not cleared by our ancestors? Were they viewed as important shade trees? Or a less valuable timber species? Or were they not straight enough to use for saw logs?

Some of these trees are many hundreds of years old and they are notable features in our visual landscape.



Eugene van Guerard completed this sketch from close to Glenrowan looking over the Greta Valley to Buffalo in 1862

WHY ARE THESE TREES IMPORTANT?

These large old scattered paddock trees have significant biodiversity, productivity and cultural values.

In many areas around Wangaratta, scattered paddock trees are remnants of our Plains Grassy Woodlands. This vegetation community is currently listed as Endangered – so conservation of these trees is important.

In terms of agricultural production, paddock trees often provide the only shade and shelter in paddocks for stock. The food provided by these trees attracts birds and other mammals such as bats, which helps to control local insect populations. During flowering, these trees attract native pollinating insects and honey bees, who then help to pollinate surrounding crops and gardens.

Paddock trees have been called ‘keystone’ structures in our landscape. Like the ‘keystone’ in a stone arch, if you lose that one stone, your whole bridge falls down. Ecologically, scattered paddock trees play a similar role in our regional biodiversity. At the local scale they look like just one tree, but when you consider their role in a broader context, it becomes more significant.



Old paddock trees are typical of our lowland plains, like this old River Red Gum with many hollows for our birds and mammals.

The ecosystem services paddock trees provide include:

- **Food** - Larger older trees like our paddock trees flower more frequently, more intensely and for a longer period than small trees, making them a greater source of nectar for birds, mammals like possums and gliders, and other insects.
- **Habitat** – Shelter and breeding areas for hollow dependent mammals and birds, and cracks and cavities used by a range of insects, mammals, lizards and frogs. Large hollows do not develop until some trees are well over one hundred years old.
- **Connectivity** - Like islands or stepping stones in our landscape, they connect patches of remnant vegetation, roadside reserves and waterway corridors.

Paddock trees are also valued importantly for their amenity and social value - they are the beautiful big old trees that we all love to look at when travelling around our region.

WHAT ARE THE CURRENT THREATS TO PADDOCK TREES?

Ecologists believe that paddock trees are being lost at a rate of between 2.5-11% every year in agricultural landscapes.

All trees have a limited lifespan and will naturally senesce (deteriorate) with age, however there are often factors which can accelerate their poor condition in our landscape.

Dieback of Eucalypts refers to the premature death of trees, as they suffer a long drawn out decline in tree health. Dieback can be caused by impacts of:

- Long term **changes in weather patterns**, including longer dry spells and altered flooding regimes.
- **Stock camping**, which can cause nutrient enrichment, compaction, root exposure, consumption of lower foliage and rubbing of bark.
- **Pasture improvement, fertilisers and herbicide** applications, which can affect soil nutrient levels and directly damage trees.
- **Insect attack**, due to the lack of birds to effectively control insect populations. High nutrient loads in soils cause trees to produce more soft leafy growth, which has a lower toxicity, which insects love.
- **Salinity**, in some parts of the catchment.
- **Mistletoe**, although a natural parasite, it can cause problems when it becomes concentrated on paddock trees.
- More recent impacts on tree health also include the **large wind storms**, which has led to the loss of limbs and uprooting of many large trees in the last few years in our local area.

Many of our large old paddock trees are simply very OLD and there are no replacement trees to take their place.

The cumulative effect is that we are slowly losing paddock trees from our landscape, and as we lose more trees, this further increases the stresses and pressure on remaining trees.



Dieback on the ends of limbs and excessive foliage production, typical of paddock trees with high nutrient loads at the base of trees.

HOW WILL LOSING THESE TREES IMPACT YOUR FARM OR OUR BIODIVERSITY?

The death of paddock trees is a major loss for our local biodiversity and agricultural productivity.

The direct loss of shade and shelter impacts on productivity, including lower weight gains for cattle and sheep and slower wool production, as animals expend greater energy on maintaining and regulating body temperature.

Reducing overall tree cover in the local area affects insectivorous bird and bat populations, which can affect pollination and insect control for crops, gardens and native vegetation.

Paddock trees have canopies and hollows that take centuries to develop naturally, so they cannot be easily replaced and once they are gone, their habitat value is lost forever.

WHAT CAN YOU DO?

The key challenge is to try to maintain a balance between recruiting new trees in paddocks and managing the mortality of the remaining large old trees.

Either planting new trees, or encouraging and protecting natural regeneration in paddocks is critical. Planting individuals or clumps of new paddock trees will provide additional shade and shelter for stock and will help to reduce the pressure on the big old trees surviving in our paddocks. Start planting now – in five years, you will have shade for your livestock.

Protecting your remaining paddock trees can be done by using temporary or permanent fencing around paddock trees to reduce stock pressure and encourage natural regeneration. You can also establish plantings of shrubs which encourages insect eating birds and bats to your sites and retain fallen timber around the base of trees to provide additional habitat for insects, lizards and small mammals.

Retain and protect standing dead trees as these provide important habitat too, particularly for large birds like Eagles and Hawks.

HOW TO PROTECT YOUR PADDOCK TREES



The Greta Valley Landcare Group currently has a project focusing on the protection of 20 paddock tree sites and the planting of 100 new paddock trees in the Greta Valley catchment. You can protect single standing paddock trees or patches of trees (greater funding applies for more trees).

This is a fantastic initiative, so please contact Sally Day on 0437 136 162 or email sally.day@gretalandcare.org.au to talk about how you can be involved.

Check out the Group's website at www.gretalandcare.org.au for more information about their projects and events.

Greta Valley Landcare Group members are busily planting new paddock trees and protecting them with these large wire guards. Over 550 new paddock trees have been planted in the last two years across their catchment.