Managing your remnant vegetation

Step 1 - Get to know it

Observe it and note the "good" plants (the locally native species): assess weeds presence, and look for signs of wildlife, from birds on the wing to insects a-burrowing. Make a note of the richness of plant and animal species and assess the health of your remnant stand on the basis of this richness (i.e. its biodiversity). Seek assistance from your local Landcare group or Trust for Nature to help you identify the flora and fauna present. Knowing all this will guide you to the extent of management required by you to re-establish the stand's health and long-term viability. This management includes protection then enhancement.

Step 2 - Protect it

Fencing Stock-proof fencing (with a farm gate to allow access for maintenance) will protect the vegetation itself and it will protect the soil. Stock won't be able to ring-bark the trees; they will not pull down young saplings; they will not trample the smaller plants; they will not expose the soil; they will not promote the spread of weeds; and they will not damage the seedbank. Fencing out stock will allow ground litter to accumulate. Small insects and other animals will forage undisturbed.

Pest Animals It is well understood that pest animals such as foxes, deer and rabbits impact farm productivity and threaten healthy ecosystems. They often hide out in remnant bush. Control them with pesticides, trapping, shooting and so on. Keep them out of your remnant stand. Whichever method you choose, be careful to avoid "collateral damage" to our native wildlife. Consult your local Landcare group on pest control methods which work best in your district.

Weeds Weeds threaten the diversity of plant species, which then flows on to affecting the diversity of animal species. Not all weeds have the same impact on the natural environment (e.g. some species are not particularly invasive). Concentrate on those weeds which have the greatest impact (potential or real) on both the health of your remnant stand and on farm productivity. Control methods include herbicide spraying, mechanical removal, cut-and-paint herbicide application, managed grazing and strategic burning. Consult your local Landcare group to determine which weeds have been assessed as having the highest priority for control in your district, and which control methods have been most successful.

Fire Strategic burning is often used to manage remnant vegetation, and can be useful in controlling weeds and promoting plant species diversity and regeneration. Some locally native plant species require heat and/or smoke in the germination process, so fire is very beneficial for promoting these species (Acacias and Banksias are just two examples). However, some species don't respond at all well to fire, and if the seedbank is poor and the remnant stand small, then fire may actually do much more harm than good. If in doubt, consult your local Landcare group to draw on any local experience with strategic burning.

Step 3 - Enhance it

Revegetation involves introducing indigenous (i.e. locally native) species to complement the species already present, either by planting tubestock or direct-seeding. It is a good way to increase the diversity of plant species when it is felt that the seedbank may not be able to offer the richness needed to restore the remnant stand back to its original pre-European settlement composition. If planting tubestock, be sure all your plants are grown from local provenance seed and discuss this with your local indigenous nursery when you place your plant order.

Regeneration involves artificially triggering the germination of seeds held in the soil seedbank, and this is most often done by either burning the ground layer or disturbing the soil (e.g. with a tractor). Both methods require a viable seedbank and other specific environmental and seasonal conditions to be successful.

Installing nest boxes will provide birds, mammals and bats with somewhere to nest, which is particularly important in the absence of any natural tree hollows. Nesting boxes are designed to select for different species – the size of the entry hole, the size and shape of the box and its location within the vegetation (i.e. high up in a tree, low down in a tree), are important considerations when designing and positioning a box.

What next?

For further assistance or advice on what funding may be available to help you implement your project, please contact the East Gippsland Landcare Network Inc. on (03) 5152 0600. If required a visit to your property can be arranged. You can also visit www.egln.org.au for further information.

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CARING FOR OUR COUNTRY

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Protect and enhance Remnant native vegetation

A guide for protecting and enhancing remnant native vegetation on your land.

One of a series of practical Landcare guides.

What is remnant vegetation?

Remnant stands of vegetation are those patches of native bush on your land which have escaped clearing. These stands may comprise just one old gum tree or a number of trees under which there may be some understorey vegetation.

Gnarly old Eucalypts, standing alone in farm paddocks may be alive, or more commonly, dead or dying. Living trees are usually threatened and in poor condition. Without protection it is inevitable that these lone trees will die young.

Your remnant patch of bush, with a few old trees and some understorey plants, presents a glimpse into the past, prior to land-clearing. Doubtless, this bush will not be pristine – it probably comprises a limited number of plant species, and it will be home to weeds. Open to stock foraging, it will be degraded. It will neither meet farm productivity needs nor meet environmental needs as a place of habitat and refuge for local wildlife.

Most Victorian remnant vegetation occurs on privately-owned land and is not protected from stock access. Private landholders are therefore in a strong position to protect and even enhance remaining remnants on their farm. This guide offers some ideas on why remnant vegetation is so important for the health of our natural environment, and what owners of private land can do to manage it for its own benefit and for our future generations.

Why value it?

Remnant trees can be very old. They may pre-date European settlement, and they will have attributes which makes them so valuable as to be practically irreplaceable once lost. It is vital that they be protected, and even enhanced with the addition of a richer mix of plant species within their vicinity.

Old remnant trees, whether standing alone in the paddock or standing in a patch of bush, provide a range of important benefits to local wildlife, and they provide a range of other benefits to landholders, some of which have a positive effect on farm productivity.

These benefits provide the value and the motivation for managing our remnant vegetation, whether this vegetation takes the form of a solitary old tree or of a patch of bush.

Managing your remnant vegetation is good for you and it is good for your property!

Productivity

Shade and shelter

A large living tree standing alone in a paddock offers shade to stock; native bush at its boundary with the paddock offers shade too and it also offers shelter from wind and wind-driven rain. Productivity gains arising from providing shade and shelter to stock are well known.

Soil health

Soil health is a function of several factors including: the richness of the organic living matter within the soil, its ambient temperature and its buffering from temperature extremes, its resistance to erosion, its water-holding and drainage capacity, and, its degree of compaction. Loose friable soil is far healthier than hard soil compacted by the hooves of heavy stock. Compaction of soil by stock damages roots and can cause the death of trees. Undisturbed by trampling stock, healthy soil will contain a vast seedbank of locally-native plant species. This seedbank will ensure the long-term survivability of the stand by providing a means for it to regenerate over time. Soil within a remnant stand, fenced off to exclude stock, will be far healthier than the soil within an unprotected stand. As soil is a component of our natural environment, it stands to reason that healthy soil is vital for a healthy ecosystem.

Biological control of pest insects

The positive benefits of a healthy ecosystem extend beyond the remnant stand out into the broader farmland (for example, birds living in the remnant stand can fly out to predate crop-damaging insects beyond the stand). In the same way, isolated remnant trees are also protected by nearby stands of healthy, protected remnant patches of bush.

Water quality

All land forms part of a water catchment. Rain falling onto the ground in a remnant stand which suffers from stock access will be impacted by soil erosion. Bare earth caused by trampling hooves will create sediment in runoff (i.e. soil is lost from the site) and this sediment will contain excessive loads of nutrient arising from stock faeces. This runoff eventually drains into waterways and farm dams, contributing to poor water quality. Protected remnant stands will contribute to cleaner water on the farm, which will benefit the stock that relies on that water. Cleaner water leaving your farm will also help reduce algal blooms that occur in the Gippsland Lakes.

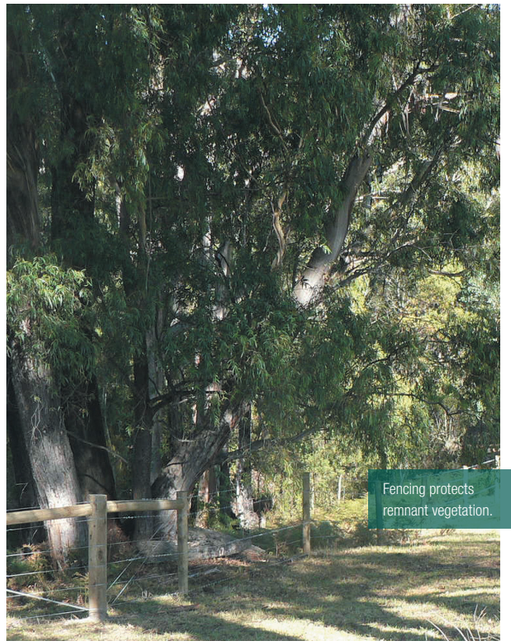
Biodiversity

Weeds

Bare earth caused by stock camping at the base of old remnant trees and within stands of remnant bush provide a haven for many weed species. These weeds spread to other parts of the farm and become a constant drain on your time, effort and money. Keeping stock camps in designated easy-to-manage areas will make the job of weed control less onerous.

Habitat and refuge

Remnant bush provides a home for insects, mammals, birds, frogs and reptiles. The soil in which this bush grows houses fungi, lichens and all sorts of other living matter, forming a healthy ecosystem. Tree hollows occur in old trees and provide vital habitat and breeding sites for many species. Without hollows, these species will have nowhere to breed – surely a recipe for species loss! Hollows occur in living trees and in dead trees – dead trees are therefore considered to be a very important part of our remnant vegetation. Many species, for example smaller birds, seek refuge when larger predators are on the lookout. Soaring falcons and hawks present a threat in open farmland, but safely tucked away amongst a forest canopy or nestled beneath a layer of prickly understorey foliage, smaller animals can go about their business in safety!



Fencing protects remnant vegetation.

Food source

Remnant vegetation offers a bountiful source of food to local wildlife, especially if it is in a healthy state with a rich mix of plant and animal species. A healthy ecosystem comprises a web of food, where all creatures eat and are eaten, and where all plants have a role to play too. It therefore follows that such a system, if healthy, is self-sustaining, offering food and sustenance to all its inhabitants. A large old living remnant tree also offers a source of food. Its vast trunk surface and large canopy of foliage plays home to an ecosystem as well, and foraging animals will feed on its leaves, fruits, nectar and exuding sap. Some species of animals are so specific in what they eat, that removal of their dietary source (e.g. through the death of an old tree) will see the loss of that animal too – the ecosystem will break down. Preserving remnant vegetation preserves food sources and so preserves our wildlife.

Ground litter

Ground litter is the “stuff” which falls from native vegetation, being made up of leaves, twigs and bark, and which accumulates other organic matter arising from decomposition over time. Lying on the ground it provides home and food to a vast array of life (fungi, lichens, macro-invertebrates, insects, birds, mammals, frogs and reptiles). For some animals, it provides nesting material and a place for performing breeding rituals (e.g. Satin Bowerbirds). It is a vital component of a healthy ecosystem. As it breaks down it provides nutrients into the soil which feeds nearby vegetation. It softens the impact of heavy rainfall and it reduces soil erosion.

Fallen trees and limbs

Fallen trees and limbs offer habitat, refuge and perching sites for numerous creatures, fungi, mosses and lichens. As they slowly rot over a long period of time, their decomposing timber returns stored nutrients to the soil, for the benefit of nearby plant and animal life.

Carbon storage

Healthy remnant vegetation is a natural carbon store – carbon is stored within the vegetation itself, in its bark, in its timber and in its leaves. Carbon is also stored in soil, and the healthier the soil with its rich organic matter the more carbon is safely stored. The more carbon that is locked up in our physical environment and the less carbon floating in our atmosphere, the more stable our climate will be over the long term.