



supporting landholders with native vegetation

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Microhabitat **Recreating a Missing Link**

By Dan Williamson, CMN Facilitator

Recently the CMN ran a field day focusing on ground layer habitat sometimes referred to as microhabitat. We set up a demonstration site to act as a trial to see what sort of success we can get by recreating microhabitat. Specifically we used artificial material that anyone can get hold of and replicate at home. We'll monitor the results over time so stay tuned.....

When we think of habitat we imagine trees, shrubs, grass maybe, and to restore habitat is to replant or regenerate native vegetation. There is an element to most vegetation types that we often overlook and is a vital link in the ecological web of almost any ecosystem. Ground layer 'microhabitat' refers to small structures on the ground that form home to many reptiles, small mammals and invertebrates. In an undisturbed or healthy system microhabitat takes form as fallen dead and decaying wood, grassy tussocks, thick mulch or rocky crevices and outcrops.

The aim of our recent field day was to look at ways to restore microhabitat in disturbed or newly created native vegetation. Many landholders in the South East have replanted parts of their property to return it to natural habitat or are restoring highly degraded sites. However it can take 50 years or more for a new planting to form dead wood and create microhabitat. By adding artificial structures in its place we can bridge the time gap and create homes for fauna that would otherwise not appear for many years to come.

We're very grateful to Cliff Wallis for offering his property in Bournda to lay out the demonstration. We are also grateful to Hayes Haulage of North Bega, for their donation of material, a pallet each of bricks, bessa bricks, roof tiles and a stack of old decaying railway sleepers.

The day was led by Steven Sass, Senior Ecologist with NGHenvironmental. Steven has extensive experience with small animal habitat having been working in the field since 1990.



Photos: Clockwise from top left: An old paver slightly raised with bricks; old bricks and a fence post; bessa bricks make good shelter tunnels; old rotten fence posts have fantastic crevices and tiles have good thermal properties.

One of Steven's main points was to highlight the factors that degrade habitat for small fauna. The major threats are removal of critical habitat through fire wood collection, over grazing of native vegetation and 'cleaning up' of the forest floor

A lack of microhabitat can create a lack in the fauna that rely on it and open up a gap in the food web. There are many other animals that feed on or rely on these animals, predatory birds other larger mammals and reptiles for example.

The demonstration was well attended by CMN members and others who had an interest. The group tapped into their artistic urges as they created sculpture like structures from bricks, old fence posts, roof tiles and roofing iron. All in all exactly 100 small structures were created for small fauna.

The demonstration results will be monitored to record and report on any increase in small fauna. We'll run a field day to learn about monitoring techniques and gather the first set of data. This will be held on Sunday, September 28th. Anyone interested can join in, send us an email or call now to let us know you are keen and we'll keep you informed.

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Coordinators Column

After a successful day creating 'microhabitat' our first CMN demonstration is now up and running. Thanks to those who came along and joined in with great enthusiasm. It will be exciting to see if there is an increase in small animals that make use of these creative sculptures as their homes. There's a full review of the demonstration on the front page of this issue and our web site has more info and photos of the different structures.

The microhabitat we created is of course a temporary measure in lieu of natural habitat. But it can take years for natural habitat to establish to a level where it can support a wide variety of life. Two member stories in this issue highlight planning and long term persistence when managing native vegetation.

We promise we didn't pay Tasia and Max any more than the standard gift voucher to tell you about the value they've found in CMN activities and information. Their story also shows how using resources such as the council, the begavalley.org website as well as reference books can better inform you as you follow your plan.

Pauline Buck has also shared her wealth of experience in this issue. With over 20 years of managing native vegetation on 'Koorool' at Tantawanglo, Pauline has tried many methods and seen a variety of outcomes. Again it shows that having a plan of management gives structure to efforts. Pauline also tells how surveys of flora, fauna and indigenous history of 'Koorool' helped with understanding. We'll follow up on these themes in future CMN activities and newsletters.

One of the ways you can plan for richer biodiversity on your property is to maintain and help to connect fragments of native vegetation. On page 3 you can read from Steve Sass on the value of any remaining patches of native veg, no matter what condition.

We hope to see you at an event soon.

Dan and Vick

Free Book Offer for Your Ideas

The Far South Coast Conservation Management Network supports landholders with native vegetation on their property and caters to all types of vegetation and all types of land holders. The CMN is about you so we'd like to hear how the network can best support you to manage your vegetation.

Have you got something to share? Are you working on a vegetation management project at home that is really successful and you could share your learnings with other members?

Anyone who would like to contribute an article in the next edition will receive a \$40 book voucher for Candelo Books.

Contact us to discuss your ideas.

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Value of Vegetation Fragments

By Steven Sass

Small isolated fragments of native vegetation are often looked upon as insignificant compared to larger tracts of wild bushland but studies show that their preservation is crucial.

Throughout Australia the development of agriculture and forestry has resulted in vast areas of native vegetation being cleared leaving small patches or 'fragments' of native vegetation. Many fragments are small in size (<2ha) and isolated from more continuous areas of native vegetation.

Clearing of native vegetation has often focussed on the more productive soils of the valley floors and lower slopes creating an uneven distribution of native vegetation. The larger, more continuous areas of native vegetation are usually located on ridges where thin, skeletal soils and steep slopes deemed these areas too difficult, useless or costly to clear.

A two-year study of reptiles in small fragments that I recently completed tells a story of how important these fragments can actually be. The study, across 43 sites, compared reptile communities of woodland and forest fragments and more continuous areas of native vegetation in an agricultural landscape. Most fragments were between 1ha and 28ha while the larger sites (which I termed reference sites) were between 115ha and 2500ha. Of the 27 species of reptile recorded, twelve species were recorded only in the small fragments while five species were only found in the larger 'reference' sites.

This highlights two important points. Firstly, the larger, more continuous areas of native vegetation that remain on the ridge tops, are not representative of total reptile diversity. Secondly, fragments provide an extremely important component of habitat within the landscape and regardless of their condition, all fragments can be maintained to maximise their potential to conserve biodiversity.

This study also found very little movement of reptiles beyond the fragment where fragments were separated by cleared paddocks or crops (These surrounding areas are often referred to as the 'matrix').

The matrix is a perfect starting point for restoration on the farm. A 'soft' matrix between fragments is crucial for low dispersal species, such as reptiles, frogs and small mammals, which are all essential biodiversity for functioning ecosystems. This encourages dispersal and genetic exchange between otherwise isolated fragments. A soft matrix can be achieved by connecting fragments with plantings of native vegetation and/or by placing artificial habitat such as old railway sleepers, brick piles, or roof tiles. Artificial habitat provides microhabitat features that are usually absent in farm paddocks and provides protection from predators and breeding areas.

Often, an emphasis on landscape conservation is placed on remaining larger areas of vegetation, which are no doubt important. However, the role of small fragments and a 'soft' matrix should not be overlooked in maintaining a diverse range of habitats for biodiversity especially where large-scale clearing has occurred on the lower, more productive areas of catchments

Monitoring Small Fauna Field Day

28th September 2008

As part of the CMN's microhabitat demonstration we will be running the first of our small fauna monitoring and surveying field days on Sunday 28th September. This will be held at the site in Bournda and the purpose is to record the numbers of fauna using the microhabitat.

If you are thinking about installing artificial microhabitat on your property and missed the first field day, this is a good chance to see how it works and learn about monitoring techniques as well.

The focus of the monitoring day will be on small fauna such as reptiles, mammals and invertebrates. We'll discuss ways to reveal what small fauna you have including fauna identification and how to identify fauna when they are not there. i.e. tracks, scats etc.

It will be a hands-on practical day hopefully with some interesting wildlife experiences.

If you are interested let us know soon so we can book you in and keep you informed of timing and location etc.

What will we find??



Photo: Steven Sass



Photo: G. Little



Photo: Dave Hunter

Jumping into 160 Acres

By Tasia Iivaditis

Tasia and Max currently live in Canberra and purchased a property at the foot of Myrtle Mountain over 18 months ago. They are on a journey of discovering their newly acquired landscape, the Bega Valley, its ecology and the thriving community of diverse, talented people within it.

Max and I are keenly interested in permaculture and we agree that ownership involves being stewards of the property. When we began to learn about land management our knowledge of Australian natives was limited to identification of plants as either wattles, gums or weeds. So it's fair to say we started with an idea, a willingness to learn and little practical experience.

Because our time on the farm is limited to weekends and because we recognise that there is a lot to learn we are deliberately taking our time to develop our plans and figure out how to best manage our property. By writing this article I want to show how our involvement with CMN has helped shape our planning and management of our property at this early stage.

We have thrown ourselves into 160 acres and spent the first year of weekends watching the seasons change and the shift in vegetation and animal patterns. Previous owners were fans of shooting (as 2 hours of picking shells out of the deck and from around the house attest) so the first few months were quiet with only the welcome swallows and the kookaburra's braving the trees around the house. Since then we have observed many more birds, including the elusive tawny frogmouth picking off the giant moths at our kitchen window.

Before finding the CMN we started as most people would, by tackling the weeds. – Using the Bradley method, pioneered by two sisters in Sydney during the 60's who together developed bush regeneration techniques, we commenced anywhere and with what little we knew. We think that the Bradley method will continue to play a part in our significant weed management challenge.

Putting the Bradley method into practice gave us a glimpse into the resilience of native bushland allowed to return to its complete ecological state. It has taught us that contrary to claims, the method does in fact take a bit of time. It's also a very rewarding weed removal method.

We came across the CMN when considering our options to control some of the more endemic weed problems on the property, and attended the 2nd in a series of workshops in relation to the use of fire to manage vegetation. Several events later and we are learning to observe and interact with native plants. We observed the behaviour of the african lovegrass near the black wattle. The adult black wattles shade out the lovegrass and act as a windbreak slowing down the seed load from the neighbouring property. Their ability to grow rapidly means that the windbreak we are planning will hopefully enable us to slow down the infestation and begin rehabilitating the pastures that were so ravaged by goats the previous owner kept.

We are learning more about our grasslands and forests as we continually survey our vegetation. This is greatly assisted by the use of the publications on endangered ecological communities and the resources on begavalley.org.au - native plant and weeds. As we learn, we are looking in particular at a south east slope of our property that was too steep to log and has some interesting plants. We want to better understand what is in it and how it might be best conserved.

Conservation is not our only goal on the farm, we plan to use principles of ecology to create a self sustaining edible forest garden. Learning about the endangered ecological communities, how they operate, and how they respond to nutrient levels is helping us consider siting and management of more agriculture pursuits like food production and animal management.

After a year observing the property we have begun planning our activities on the farm in earnest – starting with defining our goals clearly and articulating how we will approach the problems that present themselves. The process of managing a property has lent itself to all the elements that keep us interested – exploration, research, learning and action.

Our interaction with CMN has pushed us to a wider reading of ecology and has illuminated our property in ways we hadn't initially considered. Conservation will play a far bigger role in our plans than we thought it would initially. For that we thank the CMN, Dan and Vick and all those generous people who give of their time and open their properties so that we might learn more.

Among the resources we have found useful have been: Bringing back the bush: the Bradley method of bush regeneration by Joan Bradley, Edible Forest Gardens Volume 1 Dave Jacke & Eric Toensmeier and Forest Trees of Australia, Boland et al.

KOOROOL - 22 years on By Pauline Buck, Koorool resident

Listening to the powerful owl calling I'm inspired to write about the transformation of our small holding in Tantawanglo. This is the fourth consecutive year the owl has been noted.

Twenty two years ago we took possession of 58 hectares of marginal farmland with a creek. At that time it was recovering from a period of drought and heavy stock use. About a third was timbered; this had been selectively logged and well grazed. No understorey was left but red gums, stringybark and wattles surviving with peppermints and viminalis in the creek area.

With the previous owners' cattle out, regeneration took off. The understorey, from indigofera to orchids, returned after two years and red gum and wattle regeneration proliferated. We were to learn later that we had Bega Dry Grass Forest ecology, but little else of particular significance. Of course the revegetation then offered habitat for local wildlife, most of which was desirable but some was not! This has proliferated on all fronts. Soon we had recorded over 100 bird species.

With the help of some planting in more recent times, plus regeneration, the creek area is once again covered with native vegetation. Recently we have identified seven frog species. Native grasses are returning, with over 20 varieties identified.



In 2001 we formalised our plan to protect and manage two thirds of the land with a Voluntary Conservation Agreement (VCA) through the NSW National Parks and Wildlife Service. This has enabled us to have flora and fauna, Aboriginal and historical studies done which has been very important for our knowledge of our land. Also it has enabled us to install more fencing to finalise the plan, equipped us with tools to tackle noxious weeds and do tree plantings to support the regeneration process. So far so good. We now hope the tree and shrub cover will control the spread of fireweed which has taken off! The blackberry presence has certainly been controlled by the dense revegetation in the creek areas.

Prior to the VCA we completed a direct seeding project, which can be hit and miss; our second attempt was successful. Rabbits and weeds can hinder growth, but it's worth trying. Where possible we use local provenance seed and we have also been involved in workshops covering seed collecting.

For some years we've practised raising shrubs and trees, in part from our own seed. Pictures taken from photo points show a marked improvement in the growth of vegetation in the past three years, along with improvements in rainfall. Attrition rates have been surprisingly low considering the difficult, dry years they have gone through. Ironically, in 2003 we had to rescue seedlings from flooding!

Our plan of management enables us to run stock lightly in the protected areas. We run stock for weed and pasture/fire control, for beef and, an essential ingredient for organic growing, manure! No commercial activities may take place but we can take timber and small firewood for our own needs, leaving large, dead wood for the wildlife.

It has been very rewarding to witness the recovery of a natural environment and accordingly be able to offer the native flora and fauna a place to re-establish and expand. Twenty years is such a sort time in the scheme of things but long enough to see great changes.

We would like to thank those who have supported us with education and labour over the years. Previous residents of 'Koorool', Men of the Trees/Bega Valley Tree Planters, The Tantawanglo Landcare Group, Jock Waugh, Isobel Crawford, Liz Clark/Seed Bank, NPWS, the Iron Out team, and now the CMN.

Photo: A before (October 2001) and after (January 2008) scene of a dry gully on the Koorool property.

Identification

Mexican feather grass is a densely tufted perennial grass. It is almost identical to serrated tussock except when it is in seed.

It's so similar that it's hard to describe without using very technical terms. Basically the individual seed and seed covering are different sizes.

We recommend reading two facts sheets to know more. Both are downloadable from our web site www.fscm.com.au

* [Weed Alert - Mexican Feather Grass](#)

* [AgFact - Mexican Feather Grass](#)



Control

Suspect plants should be immediately reported to your local weeds officer for identification (see details below). There are no registered herbicides for Mexican feather grass control.

What to do ?

If you find our suspect Mexican Feather Grass the best action is to report it immediately to Bega Valley Shire Council Weeds Coordinator 6499 2288 or NSW Department of Primary Industries Weeds Hotline 1800 680 244 or weeds@dpi.nsw.gov.au

New Grass Weed Threat



Mexican Feather Grass
Nasella tenuissima

Bega Valley Shire Council weeds staff have been alerted that a weed closely related to serrated tussock and Chilean needle grass, both listed noxious weeds and Weeds of National Significance, has been found growing in the ACT.

Mexican feather grass (*Nasella tenuissima*) is very invasive and has the potential to infest pastures and native grasslands on the south coast. This weed is capable of surviving in highly variable climates and soil types. It is extremely hardy and able to tolerate prolonged periods of drought, which could make it more invasive than serrated tussock. It can form monocultures, out-competing desirable plant species, and has no feed value.

Mexican feather grass is a densely tufted tussock grass very similar to serrated tussock but slightly taller, growing to 0.8 metres. It produces more seed than serrated tussock.

Initially mislabelled and sold as an ornamental in Australia under the names Elegant Spear Grass, Pony Tail and Angel's Hair. Mexican Feather Grass is not known to be naturalised in Australia to date. This grass is a weed in its native range and is considered to be of low palatability. If this species naturalises in Australia it potentially has a wider range than Serrated Tussock. Mexican Feather Grass escaped from cultivation in New Zealand and has become a weed that is continuing to spread.

This issue highlights the need to know what you are buying when you chose a plant for your garden. Many major weeds infestations have occurred from garden plants escaping. Some prime examples are Asparagus fern, Lantana and many other grasses like Kikuyu and pampas grass.

It's encouraging to see that weeds officers and landholders are effectively managing the only known infestation of Chilean needle grass in the in the Shire. It was identified by the Botanical Gardens in Sydney after being handed to the Department of Primary Industries (DPI) by a landholder. Quick action to prevent further spread has been successful.

Be on the lookout for plants you do not recognise. If you find a plant you don't know, take a sample to Council or the DPI for identification. That way a potential weed can be tackled when there are only a few plants to deal with. Carrying out a control program then costs less and prevents seed build-up in the soil and seed spread to other areas.

Tree Planting Methods - Local Tour

Have you planted native trees on your property? If so then you might realise it's not as simple as digging a hole and shoving a plant in!

To complete the workshop series of information to 'Grow Your Own', we're planning a local tour of revegetation methods. While there will be some planting shown, the aim of this day will be to demonstrate results from a selection of revegetation sites as well as over different time frames.

Information on the day will cover:

- The best time to plant natives
- Ground preparation
- Ripping or digging
- Handling seedlings
- Tips to get a good success rate
- Weed removal and herbicide use
- Water needs
- Species selection and where to get them

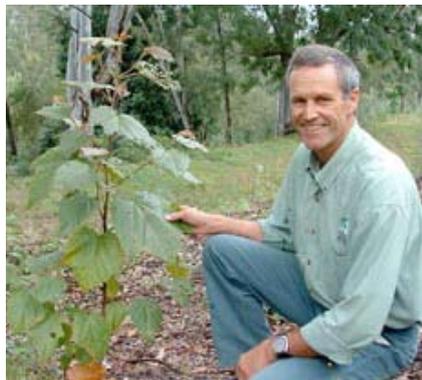
When: Late August – early September

Time: A weekend half day with a delicious lunch to finish

Where: Starting in Bega, visiting two or three other properties

If we have enough people respond we'll get a bus to make it easy to get everyone around - and cut down your travel costs!

Let us know if you are interested so we can inform you when a date is set.



Far South Coast CMN

2 years on

Where to now?

By the end of this year the Far South Coast Conservation Management Network (CMN) will be two years old (or young).

In this time we've established the network, built the membership to over 200 members, held relevant events to share information, produced a bi-monthly informative newsletter, as well as the website and helped many landholders to meet other like minded people.

We're entering into a review period and starting to plan how the CMN will function and perform into the future.

What this really comes down to is two points:

1. How have we done so far?
2. How can we better support you in your endeavours to manage native vegetation?

Essentially the CMN was set up to help landholders build skills, knowledge and ability to manage biodiversity in the Bega Valley region. So much of our landscape is managed by private landholders and a significant portion of some ecologically endangered vegetation communities, individual flora and fauna are found on privately owned land.

We're committed to helping you do what you do better. How can we do this? If you can find five minutes to spare drop us a line, email or hit our web site and let us know how we could better support you to manage native vegetation.

Dan & Vickie Williamson, CMN facilitators.

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PS. Thanks to all those who have attended workshops, contributed to the newsletter and who are dedicating time and effort towards enhancing the natural environment.

www.fscmn.com.au

If you haven't checked out the CMN web site lately then it may be worth a look. After each network event, a review goes up on the site along with resources relating to the topic.

Some of the more recent resources we've added include:

- Guidelines for Reconstructing Microhabitat
- Numerous guidelines for managing grassy ecosystems
- Bird lists for the far South Coast
- Native Seed Collecting notes
- Native Plant Propagation notes