



Community Network News

*Mid Loddon-CMN & West Marong, Upper Spring Creek,
Ravenswood Valley, Nuggetty, Baringhup, Eddington*



Landcare Groups & other community friends

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MEETINGS & EVENTS - 2014

Mid Loddon Landcare Network Committee

The next meeting will be held at the Lockwood South Primary School at 7.30pm. Monday 26th May 2014.

Field workshop with Alison Pouliot to be held at 1.00pm Wednesday 14th May at the Shelbourne Nature Conservation Reserve. Meet at the cnr. Maryborough & Newbridge Roads. Picnic afternoon tea will be supplied.

Workshop - Discovering the Fungi of the Shelbourne Nature Conservation Reserve

While many people associate fungi with damp ferny gullies, fungi are also a vital component of the dryer Box-Ironbark forests of north-central Victoria. Fungi perform vital functions in these ecosystems including those inhabited by Bush stone-curlews. What fungal species grow in these environments and how are they important to the survival of Bush stone-curlews? Which mammals and other animals rely directly on fungi as a food source?

Little is known about the occurrence and distribution of fungi in Box-Ironbark Forests. Fallen wood and on-ground organic matter are an essential part of these ecosystems in providing habitat and nutrients for all biodiversity. How do fungi contribute to the overall health and resilience of these forests?

This field-based workshop builds on participants' knowledge from previous workshops in discovering, surveying and recording the fungi of the Shelbourne Nature Conservation Reserve. Participants will learn techniques for identifying, surveying and documenting fungi and the vital interactions they have with other forests species. Data collected during the workshop will make vital contribution to national databases including Fungimap and the Living Atlas of Australia.

West Marong Landcare Group meeting to be held at 7.30pm on Tuesday 17th June at the Woodstock Hall

Upper Spring Creek Landcare Group

General meeting to be held at 7.30pm Tuesday 13th May at the Lockwood South Primary School
Agenda: Curlew and forest projects updates & discussion.

Baringhup Landcare Group next meeting will be held at 7.30pm, Monday 2nd June at the Baringhup Hall supper room.

Ravenswood Valley Landcare Group- meets last Wednesday of every second month.

Nuggetty Landcare Group – meets at 7.30pm on the first Wednesday of each month

Eddington Landcare Group- meet in the Red Gum Forest seasonally. The next meeting is on Saturday 7th June at 10.00am followed by morning tea and a walk in the forest. Bring your own chair. Note - Maryborough Road signed entrance gate.

Future event to note:

Bush Stone-curlew Annual Australian Summit

This year to be held in Albury in August – date to be confirmed. Upper Spring Creek Landcare Group & CMN members have been invited to attend and provide a presentation about our local 'Save our Bush Stone-curlews' project.

Interesting articles and promotions:

Don't forget to checkout new additions to the Upper Spring Creek Landcare Group 'blog' uslandcaregroup.org.au

Check out the story about the pair of rare Dwyer snakes found locally

Google the 'SWIFFT' website for threatened bird information, including our Curlews.

Google 'FUNGIMAP' for the latest contributions from Alison Pouliot.

Appreciation: Many thanks to those who have contributed to all our local landcare effort through subscriptions. With special thanks to additional donations which have been included in our 'Save our Bush Stone-curlew' fund.

Project brief: Our second **Curlew enclosure** will be installed soon and the arrival of our promotional and breeding Curlew stock is imminent!!

The Shelbourne Nature Conservation Reserve **restoration project** is progressing well with the first catchment thinning nearing completion.

There will be an on-site meeting next Thursday 8th May at 9.30 am (follow the signs off the Newbridge Road). The meeting will involve the work crew, Parks Vic, DEPI, BRITafe students Interested community members are welcome to attend. There will be discussions about whether the current thinning prescription is adequate or should be further modified before moving into the second catchment.

Media Release from DEPI on the 2nd May. Swift work by Bendigo TAFE students for threatened parrot - in partnership with DEPI and the Mid Loddon CMN. DEPI Murray Goldfields Forester in Charge Paul Bates, said that Bendigo TAFE Conservation and Land Management students, under guidance of DEPI officers and Mid Loddon CMN (& Mid Loddon Landcare Network) recently completed thinning of four hectares of the Lockwood State Forest. This section of the forest (along Boswell Road) is zoned as a special management zone for swift parrot habitat. This will result in a larger canopy and increased food source for Swift parrots that feed mostly on nectar from eucalypts. *extract*

Fungus Species List for Shelbourne Reserve
Fungi grow in and on all sorts of substrates including living and dead trees; fallen logs, sticks and leaf litter; soils of all kinds; herbivore scats and even on other fungi. Lichens are fungi too and grow on rock, wood and soil and even some human-made substrates.

The list provides an indication of some of the fungi that we might encounter in the Shelbourne Reserve. The list is organised by the substrate types on which we're likely to find them. Some fungi may grow on more than one substrate type, but the substrate type they're listed under is generally where they're more commonly found.

This list is based on observations of fungi growing in the local forests over the last few years. Note that additional fungi may be found, which are not on this list, and many on the list may not be found.



Examples of some of the fungi we will be searching for in the Shelbourne Nature Conservation Reserve.

- **Fungi growing on living or dead trees**
- **Fungi growing on logs, stumps and other fallen wood**
- **Fungi growing on leaf litter or in soil**
- **Fungi growing on animal scats**
- **Fungi growing on rocks and wood**

A detailed species list with pictures will be supplied to those attending the Field Workshop

Coppice Regrowth in Victoria's Box-Ironbark Forests

The Box-Ironbark forests around places such as Bendigo, Castlemaine, Rushworth, Heathcote, Maryborough and St Arnaud are the signature forests of the goldfields. Unique to Australia, and valued by local communities, the landscapes of the region have inspired poets, writers and artists, both past and contemporary.

In pre-gold rush times the forests were dominated by large, broad-crowned and widely-spaced trees abundant with hollows. Aboriginal people had their own names for these trees, for example, Red Ironbarks were known as yeeripp by the Djadjja Wurrung. The forests provided the indigenous people with plentiful supplies of wood, plants, and minerals: the limbs of ironbarks were commonly used for making wonguim (boomerangs); the bark of box trees was used for constructing willams (bark huts); and Box bark and coloured ochres were used for ceremonial purposes. The numerous animals inhabiting the timbered areas were hunted for food and their skins.

Many of the trees were old, and from the gold rush onwards most were cut down. James Arnot gave an account of his first Sunday wood-gathering expedition, on the Castlemaine Goldfield, in which an 80 foot eucalypt was felled: What a splendid crash these mighty giants

of the forest come down with. Only the branches were used, cut into logs about eighteen inches long and the leaves collected for 'bush-feather' bedding. The trunk was left where it fell.

Before long, Arnot complained at having to go as far as two miles from camp in search of firewood. Another gold seeker at Bendigo, Alec Finlay, observed that:

The hills on each side of the gully which might have been called thickly timbered (less than two months before), are now cleared a considerable distance up for firewood, and trees are barked for miles around for the closing in of chimneys, securing sides of tents and covering the mouths of holes from the wet.

Today the forests of the goldfields have totally different treescapes. It is difficult to imagine trees that could have measured two metres across the base because all that you can see now are clumps of trunks. Or is it? Cut off near the base for firewood, each forest 'giant' has since coppiced – it has grown new shoots from its underground rootstock. Because the old tree stump has rotted away, the new growth appears to be separate trees (sometimes of up to 20 trunks) but they all come from the same surviving underground base of the tree, which could have started life hundreds of years ago. Each clump is a ghostly impression of its original self, with the ancient rootstock hidden but alive.

The coppice regrowth trees tell a remarkable story of survival, transformation and regeneration. They form both relic and evolving forests and are, in a sense, archaeological features produced by human activity during the gold rush. The trees form part of cultural landscapes that also contain the material evidence of abandoned gold mines, earthworks, bush tracks and hut sites. As the government wanted to retain possession of its gold bearing land, and it was necessary to ensure supplies of timber for mining needs, many forests survived and now mark the known goldfields of the nineteenth century – they form the basis of today's parks and reserves system. The landscapes and sites, associated with many former gold towns and settlements, form a region of strong historic character and interest.

The forests are a challenge to modern land managers (Parks Victoria and the Department of Sustainability and Environment) because in their evolving form they have a reduced capacity to support bird and animal life; the trees, largely slow-growing hardwoods, are sometimes illegally harvested for firewood; and surrounding

communities have traditionally relied on timber for their livelihood.

Conservation and enhancement measures are being discussed, in the hope of producing large trees. The significance of large old trees to conservation is that they can – because of bark density, increased flowering capacity and multiple nesting hollows - support higher numbers, and a richer variety, of species. A strong sense of spirituality and wonder, both about the modern world and the vast forests of the pre-European Australia, is often associated with large trees.

David Bannear – archaeologist

Bird of the month – Varied Sitellas



Photo – Birdlife website

Varied Sitellas are endemic (only found in) and widespread in mainland Australia.

Habitat

Varied Sitellas are found in eucalypt woodlands and forests throughout their range. They prefer rough-barked trees like stringybarks and ironbarks or mature trees with hollows or dead branches.

Feeding

Varied Sitellas feed mainly by gleaning on tree trunks or branches, moving downwards or along branches, searching for insects. They land at the top of a tree and work downwards, searching and poking into cracks and under things, chattering noisily.

Breeding

The Varied Sitella's nest is a deep open cup, like a cone, of bark and spider web, decorated on the outside with long pieces of bark, camouflaged to look like the fork or branch where it is placed. This species usually breeds cooperatively, with the breeding pair having several helpers. They will sometimes also breed in single pairs. Only the breeding female incubates the eggs and broods the young. All help to feed the young and remove faecal sacs.

Wise words:

Research has shown that in forests in central Victoria, bird numbers have been found to be nine times greater in areas containing fallen timber than in those where firewood is collected.

Soil Fungi

What do fungi do?

Fungi perform important functions within the soil in relation to nutrient cycling, disease suppression and water dynamics, all of which help plants become healthier and more vigorous.

Decompose woody organic matter

Along with bacteria, fungi are important decomposers of hard to digest organic matter. They use nitrogen in the soil to decompose woody carbon rich residues low in nitrogen and convert the residues to forms that are more accessible for other organisms.

Increase nutrient uptake

Mycorrhizal fungi are well known for their role in assisting plants in the uptake of phosphorus. Ectomycorrhizal fungi can benefit plants by promoting root branching and increasing nitrogen, phosphorus and water uptake due to their large surface area and internal cellular mechanisms. .

Improve plant resilience

The sheer size and mass of fungal hyphae help decrease plant susceptibility to pests, diseases and drought.

Improve soil structure

Fungal hyphae bind the soil particles together to create water-stable aggregates which in turn create the pore spaces in the soil that enhance water retention and drainage.

Where are fungi found?

Fungi are found wherever there is hard, carbon-rich woody organic matter. This could be dead rotting trees in a forest, leaf litter on the surface of orchard soils, crop litter or plant roots.

Mycorrhizal fungi are found naturally in all soils. Techniques to determine their presence usually focus on indirect methods or look at the colonisation of plant roots and are therefore not that reliable. It is difficult to get mycorrhizal fungi to grow outside their natural state, but staining techniques and microscopy have been useful in identifying mycorrhiza from soil and plant samples.

Fungi tend to dominate over bacteria and actinomycetes in acid soils as they can tolerate a wide pH range.

Fungi can survive in the soil for long periods even through periods of water deficit by living in dead

plant roots and/or as spores or fragments of hyphae.

Beneficial and Effective Microorganisms for a Sustainable Agriculture

Towards Agriculture Without Chemicals and With Optimum Yields of High Quality Crops.

Agriculture in a broad sense, is not an enterprise which leaves everything to nature without intervention. Rather it is a human activity in which the farmer attempts to integrate certain Agro-ecological factors and production inputs for optimum crop and livestock production. Thus, it is reasonable to assume that farmers should be interested in ways and means of controlling beneficial soil microorganisms as an important component of the agricultural environment. Nevertheless, this idea has often been rejected by naturalists and proponents of nature farming and organic agriculture. They argue that beneficial soil microorganisms will increase naturally when organic amendments are applied to soils as carbon, energy and nutrient sources. This indeed may be true where an abundance of organic materials are readily available for recycling which often occurs in small-scale farming. However, in most cases, soil microorganisms, beneficial or harmful, have often been controlled advantageously when crops in various agro-ecological zones are grown and cultivated in proper sequence (i.e., crop rotations) and without the use of pesticides. This would explain why scientists have long been interested in the use of beneficial microorganisms as soil and plant inoculants to shift the microbiological equilibrium in a way that enhances soil quality and the yield and quality of crops (Higa and Wididana, 1991b; Higa, 1994:1995). Extract from 'My agriculture information Bank'

Functions of Beneficial Microorganisms

- Fixation of atmospheric nitrogen
- Decomposition of organic wastes and residues
- Suppression of soil-borne pathogens.
- Recycling and increased availability of plant nutrients
- Degradation of toxicants including pesticides
- Production of antibiotics and other bioactive compounds
- Production of simple organic molecules for plant uptake
- Complexation of heavy metals to limit plant uptake
- Solubilization of insoluble nutrient sources
- Production of polysaccharides to improve soil aggregation