



## **Community Network News**

*Mid Loddon-CMN & West Marong, Upper Spring Creek, Ravenswood Valley,  
Nuggetty, Barrinhup, Eddington, Kangderaar/Murphy Creeks Landcare  
Groups & other community friends*



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### **MEETINGS & EVENTS- 2013**

**Upper Spring Creek Landcare Group Meeting** – 7.30pm Tuesday 12<sup>th</sup> March. Details below  
**Joint meetings between the Upper Spring Creek Landcare Group & Mid Loddon CMN** will continue in 2013 at 7.30pm at the Lockwood South School on Tuesday **12<sup>th</sup> March**, Tuesday **11<sup>th</sup> June** and Tuesday **10<sup>th</sup> September** . The agenda for these meeting will include discussions and reports regarding current and future local Box Ironbark/Woodland projects, including the pilot school environmental program and other local environmental issues, with attendance and reports welcomed from Parks Vic, DSE/CMN Facilitator, COGB, DSE Forestry, NCCMA and others. All welcome to participate in these forums. Also launch of the new Landcare/CMN blog.

#### **The Benefits of Bugs – Bugs and Biodiversity on the farm – maximising the benefits.** (NCCMA)

**Speaker:** Dr Saul Cunningham, a CSIRO scientist, researching the fascinating world of invertebrates and their relationship with us through land use.

“Insect biodiversity provides great value through its direct beneficial impact on agricultural production”

**Where:** Serpentine Lawn Bowl Clubrooms, Loddon Valley Highway, Serpentine

**When:** 10.00am – 1.30pm, Friday 15<sup>th</sup> March Lunch will be provided – RSVP to NCCMA by 12<sup>th</sup> March 03/5448 7124

Dr Cunningham’s recent work in Australia is particularly relevant in the face of land use change and the imminent threat to pollinators from the Varroa mite.

**Lockwood & District Community Committee Meeting** will be held at 7.30pm on Tuesday 19<sup>th</sup> March at the Lockwood South Hall to discuss if the Lockwood & district community are interested in such a committee and if so how the community might move forward. Community support is also needed for a review of the original ‘Community Plan’ with new ideas and positive suggestions appreciated and discussed. The Meeting will be chaired by COGB Councillor Rod Fyfe. (Details on page 4)  
For further information contact Janet Jiricek 5435 3817

**Mid Loddon Landcare Network 2<sup>nd</sup> Soil Forum and Dinner** will be held on Tuesday 26<sup>th</sup> March commencing at 6.00pm at the Eddington Community Hall.

Speakers to include -

Andrew Whitlock - (Precision AG.) & Judy – 2013 Project update

Michael Eyres – ( Injekta) Production gains whilst increasing soil health

Neil Hives – (IPM) Integrated Pest Management & associated production gains

James Whale - (MSA & Assoc.) Cell or intensive grazing soil and production gains

Richard MacEwan – (DPI) ground trothing project wheat crops and summing up.

**West Marong Landcare Group** meeting will be held at 8.00pm Tuesday 16<sup>th</sup> April (3<sup>rd</sup> Tuesday) at the Woodstock Hall. The meeting will commence with a light meal at 6.00pm.

Speaker- Alison Pouliot – ‘Fungi in the farm landscape Seminar’

#### **Seminar Summary**

This seminar will introduce participants to the diversity and important role of fungi in soils. It will address ways in which fungi promote decomposition, recycling processes, soil formation, water retention capacity and greatly improve nutrient and water uptake in plants, as well as suppress disease. We will look at both micro and macro fungi and their responses to events such as fire and climate change as well as ecologically-sympathetic agricultural approaches that promote fungi in soils. The

session will include both an illustrated seminar and an interactive hands-on session where participants will examine various fungal specimens and resources.

**Baringhup Landcare Group** meets third Thursday of every second month. Next meeting 18<sup>th</sup> April.

**Ravenswood Valley Landcare Group**- meets last Wednesday of every second month. Next meeting 27<sup>th</sup> March

**Eddington Landcare Group**- meets on a Saturday morning in the Red Gum Forest when required.

**Advance notice - Upper Spring Creek Landcare Group meeting** at 7.00pm on Tuesday 14<sup>th</sup> May at the Lockwood South School: Speaker Alison Pouliot – wild life photography. Participants to bring a memory stick with 5-6 photos – all those difficult shots that didn't quite work or certainly wouldn't win a competition prize. Alison will show how to improve your use of your camera and how to set up a photo. (Please make sure your memory sticks do not have any virus contamination)

**Advance notice: Biodiversity Across the Borders Conference 2013** at the Mt Helen Campus of the University of Ballarat. All day conference on Friday 7<sup>th</sup> June 2013

**Key note address** – Professor David Lindenmayer, ANU Fenner School of Environment & Society

**Other speakers** – Professor Mike Clarke – La Trobe University & Professor Ian Lunt (Charles Stuart University)

For natural resource managers, it is an excellent opportunity to learn about new applied research outcomes and what they mean for you. For researchers it is a great way to communicate your work in a way that can make a real difference. 'Biodiversity Across the Borders' continues to build and strengthen collaborative networks so as to enhance both research and land management into the future. All attendees must register beforehand. There will be no registration fee for attending this conference. Morning tea, afternoon tea and lunch will be provided. A full itinerary will be published in the coming months.

Register by email (preferred) [s.florentine@ballarat.edu.au](mailto:s.florentine@ballarat.edu.au) or 03/5327 9231

**Advance Notice: Digital Rural Futures Conference** - planning is well underway, with key content support from CRC SI, the Regional Universities Network, CSIRO and Regional Development Australia. The conference is scheduled for 26 – 28 June at UNE in Armidale NSW. Conference website for registration - [www.une.edu.au/smart](http://www.une.edu.au/smart)

A national forum to exchange ideas and provide updates on the opportunities and challenges for agriculture in Australia's digital economic future.

**A national broadband communications network offers enormous opportunities for Australia's agricultural sector. In turn, connected farms, and their supporting industries will play a significant role in Australia's digital economic future.**

The Digital Rural Futures Conference is about building networks and raising awareness of challenges and opportunities across a broad range of fronts. We encourage abstracts designed to introduce your research, your group or institution, your business or your activity to other Conference delegates.

1) Smart technology: including sensors and sensor networks, immersive and sentinel vision and communication technologies, far-end control and autonomous systems (including UAVs and robotics) for environment and agricultural production:

2) Data and information management: including cloud-based services, interoperability, sharing and security, crowd sourcing and citizen

science, remote surveys, web-supported smart phone apps etc:

3) Smart services and decision support systems: application cases including precision agriculture, farm-to-customer retail, remote on-farm product support, teleworking, remote diagnostic and advisory systems including tele-veterinary and tele-agronomic support, assisted living, tele-health, remote extension and training, consumer surveys, intelligent networks for power grid control, emergency and environmental risk management.

### **Satellite Imaging Technology**

Over the past decade new automated data acquisition technologies have emerged. Under the classification of "imaging sensors", such technologies include digital aerial photography, high-resolution satellite imaging systems, space-borne and airborne interferometric synthetic aperture radar (InSAR) and airborne laser scanning (LiDAR). Moreover, such new technologies have not been restricted to aerial and space platforms, as we are

seeing broader application of terrestrial imaging and laser scanning within mainstream surveying, mapping and GIS.

These data acquisition systems produce a wealth of primary data that require extensive processing in order to generate information products.

**Communication in the mid-Loddon area:** *Judy*

Our plan to investigate improved access to communication technology at the West Marong Landcare Group meeting in February, failed dismally with invited speakers either sending late apologies or failing to appear. I will continue to investigate and hopefully provide further information. Please note that as part of our continuing Soils Project in 2013 we are aiming to provide ipad and computer communication training events so that our community members can take advantage of new technologies that have the potential to increase farm financial returns.

**Action to improve soil for global security:**

Every minute, 23 hectares of land face desertification, 5.5 hectares of land are transformed by urban encroachment (severely disturbing soil functions), and 10 hectares of soil are degraded, causing the soil to lose the capacity to support ecosystem functions. Soil is - in human terms - a non-renewable resource. In effect, the earth is being stripped of its cover at a rate much faster than can be replaced, thereby posing a direct threat to sustainability. Around the world, there is a continuous decline in soil quality; unequal access to fertile soil renders the livelihoods of many rural people vulnerable. This trend leads to food insecurity, contamination of water resources, desertification, and increased vulnerability to extreme climatic events.

Now action is being taken by the Global Soil Forum (GSF): it has initiated a process of fostering translation of soil knowledge into tangible action. The GSF also acts as a voice in the national and international policy debate, advocating for soil management approaches that contribute to achieving sustainable development and equitable access to this finite resource. The forum recently launched the first Global Soil Week. More than 400 representatives of governments, scientists, international organisations, business and civil society met in Berlin, Germany, to consider the theme 'Soils for Life'. The event took place within the framework of the Global Soil Partnership and served as a platform to follow-up on the land- and soil-related decisions from the June UN Conference on Sustainable Development.

Read more at: <http://phys.org/news/2013-01-action-soil-global-food.html#jCp>

**Where have all the worms gone?**

Soil without worms is noticeably less productive than soil with worms and far more prone to wind and water erosion. Such soil requires the constant application of fertilizers to maintain productivity. Eventually it dies!

Worms are subject to few diseases, in fact you can say that they catch none at all, and for very good reasons. The bacteria fostered in their gut and excreted in their castings are benevolent and produced in such overwhelming numbers that disease-producing bacteria find life very difficult in an earthworm environment.

Worms will eat half or more of their own weight daily and, as they do, will till, aerate and fertilise at the rate of more than 90 kilos pf soil per square metre each yea. This is a massive 900 tonnes of soil per hectare – soil which should become progressively more moisture retentive and more productive as the years pass.

Soil with a good population of earthworms will also have a large population of bacteria, viruses, fungi, insects, spiders and other soil animals. Due to evolving in Australia's harsh conditions, our native worms rarely surface to deposit their castings, and have no liking for improved pastures, preferring to work deeper in the soil. Introduced species prefer to work closer to the surface and add to the top soil as they regularly deposit castings.

Both native and introduced species work happily together.

Wormless pastures develop a root mat just beneath the surface, which can become quite dense and act as a barrier to the penetration of rainwater. As worms burrow through the soil, apart from breaking down the root mat they open up channels for oxygen and during rainfall for water to penetrate. As a result, worm populated soil becomes wet faster and deeper and holds the moisture longer, with a reservoir created deep in the soil fed by tunnels of the intermediate and shallow burrowers working above. The result is that the effects of drought are lessened and crop and pasture growing time extended by the creation of a healthier, more moisture retentive soil which can support more vigorous plant growth.

The worm tunnels are coated with mucus, which is rich in nitrates, and plant roots take advantage of the tunnels as easy-growth channels. The roots can extend quite quickly along these channels, taking nutrition from the nitrogen-rich mucus as they go. Rainwater also plays a major role in making this nitrate available to plants, dissolving

it from the mucus as it runs through the channels and spreading it through the substrata.

#### ***Worm destructive farming practices:***

It seems more than coincidental that where farming practices involve frequent and deep ploughing, combined with the (often profligate) use of manufactured fertilizers, there has been a concurrent fall in both size of the active worm population and aggregates in our agricultural lands.

It is important to make sure that your soil pH is suitable for a worm population. Some worms will tolerate extremes of 3.5 or 9pH, but generally the level preferred by worms will fall between 5.5 and 8.5, with 6.5 the most suitable. Worms become paler in acid soil

Australian farmers are considered to be among the world's most efficient, yet, even in the better cropping areas, production rarely achieves 20 per cent of the rainfall potential, partly because much of the soil lacks aggregates and humus. In simple terms the soil can't hold water. Wormless soil, lacking worming burrows and humus, drains poorly and, if there is heavy rain, can become a bog until the sun dries it out, at which time it may become hard and unyielding. If there were worms present in that same soil, it would have good drainage and water storage capabilities, distributing the moisture evenly throughout its structure.

As our knowledge of soil fertility, or rather the need to create the right conditions for plant growth increases, we have invariably developed techniques, which have mimicked the work of earthworms – usually to their detriment. There is a great deal about soil management that we do not know and the consequences of our errors abound. Surely it is high time we acknowledged our short comings and learned to follow the lead of the master – the humble earthworm.

(In 1881, Charles Darwin wrote that, 'Earthworms prepare the ground in an excellent manner for the growth of fibrous-rooted plants and their seedlings of all kinds'.

#### *References:*

*Earthworms in Australia* by David Murphy Hyland House,  
*Earthworm fact sheets*

**The official opening of the new Lockwood South Primary School building** was a great success with students, teachers, parents (& grandparents), landcare members, and politicians all having a role to play in the event. The children performed with enthusiasm, especially their new TUAN song (details in the next edition). Minister Dixon was introduced to a Tuan (sadly only a stuffed model). Tea and cakes were

shared, including cup-cakes made by the children. Visitors were invited to join the children for a tour of the buildings and grounds.



A display was set up to promote the new landcare supported Box-Ironbark environmental course, being led by Rosemary Davies. Funding for the continuing support of the project was discussed with attending politicians.

#### **Waterwatch Monitors Event:**

The 3<sup>rd</sup> Annual Waterwatch picnic by the River 2013 – for the mid Loddon area monitors, was held at the Happy Jack Reserve on the 22<sup>nd</sup> February between 11.00am & 1.30pm. Our local hard working volunteer Waterwatch monitors are Graeme & Liz Barber and Frank Steele.

Frank provided a presentation to visiting monitors about his work as a local Waterwatch monitor and the landcare Groups ongoing project of creating vegetation linkages from the central Vic Box-Ironbark forest through the mid-Loddon sub-catchment agricultural area to the Loddon. Frank also spoke of his work with the 'Save our Curlews' project

#### **Lockwood & District Community member's latest effort to re-invigorate the Community Committee.**

For the last three years the Lockwood and District Community Committee has been meeting to foster a sense of community in the district and was incorporated as a group last year.

The statement of purpose for the group was –

- Be the key driving body behind the Lockwood and District Community Plan
- Provide an overarching body to bring together Committees that are managing facilities in Lockwood and District and provide support to all Committees and Community groups
- Promote and develop the use of community facilities with a view to maximising the community's assets and providing a strong community voice.

During its existence the Lockwood and District Community Committee was responsible for about 25 community events at the Hall, Reserve and local school. Funding was obtained to improve facilities at the Hall and a number of goals from the Community Plan have been met. Sadly the Committee has been in recess for several months due to lack of support.