



Mid Loddon Landcare Network News

*Mid Loddon-CMN & West Marong, Upper Spring Creek,
Ravenswood Valley, Nuggetty, Baringhup, Eddington
Landcare Groups & other community friends*



NEWSLETTER VOL. 21 - No. 11 December 2015 - Incorporation No: A0061417V

Contact information : c/- Secretary, PO Box 2197 Bendigo DC. Victoria

blog: uslandcare.org.au

MEETINGS & EVENTS – 2015 -2016

Upper Spring Creek Landcare Group

Annual Christmas BBQ will be held on Tuesday 8th December at 6.00pm at the Happy Jack Reserve. Meat & Vegie burgers, bread, tea & coffee will be supplied. Please bring salad or sweet to share if able. Extras will be available for guests and busy people. BYG & chair.

Entertainment: Story telling, music, poetry and other fun. BYO riddles and jokes to share.

West Marong Landcare Group

Meeting to be held at **8.00pm** on Tuesday 20th February 2016 at the Woodstock Hall.

Agenda: TBA

Baringhup Landcare Group - next meeting to be held at 7.30pm at the Baringhup Hall Supper room on Monday 5th February . 2016 -

Agenda: Bells Swamp & Eddington Red Gum forest current health report – Damien Cook

Nuggetty Land Protection Group next meeting Held at 7.30pm 3rd February 2016 at the Winery meeting room.

Eddington Landcare Group- meet seasonally Summer meeting will be held at the Eddington store .TBA

Ravenswood Valley Landcare Group. Next meeting will be held at 7.30pm on Wednesday 27th January 2016 at the Harcourt Hall

Rabbit Control Field Day event to be held at 9.00am to 12.00noon on Sunday 14th February (further details will be promoted)

** Australian governments and industry have joined forces in a global search for a new rabbit haemorrhagic disease virus (RHDV) strain to boost rabbit biocontrol effectiveness in Australia. The search and evaluation has*

led to a naturally occurring RHDV variant from Korea (RHDV K5) being selected. It is currently under assessment by government regulators. The national release will be coordinated by the Invasive Plants and Animals Committee in consultation with Australian Wool Innovation and Meat and Livestock Australia. It is hoped to be in Autumn 2016.

*RHDV K5 Expressions of Interest document.

<http://www.pestsmart.org.au/get-involved-as-a-monitoring-site/>

Mid Loddon Landcare Network Management Committee Meeting 2016

Next meeting will be held at 7.30pm on Monday 29th February 2016 at the Lockwood South Primary School.

Baringhup/ Nuggetty/Eddington/Ravenswood Valley Landcare Group farmers –

Landscape geology and Soils Field Day **9.30am Wednesday 13th January at**

Col, Deb & Doug Jennings property and moving on to a second property.

Technical support provided by Soil Scientists Christian Bannan & Roger Wrigley. Catering provided

West Marong landcare Group-

Landscape geology and Soils Field Day

commencing at 9.30am Thursday 14th January at Brian & Brad Comer property and moving on to a second property. Technical support by Soil Scientists, Christian Bannan & Roger Wrigley. Catering provided

Words of Wisdom:

“The real cause of hunger is the powerlessness of the poor to gain access to the resources they need to feed themselves.” — Frances Moore Lappé

Mid Loddon Famers

Our local Landcare agricultural based groups will be concentrating on 'Building Skills and Capacity' for the next few years -

- Our agricultural industry is becoming increasingly complex, with many types and sources of information that growers need to make decisions.
- the number of appropriately skilled researchers and advisers being trained to replace the current generation is inadequate—this is compounded by a large number of experienced people reaching retirement age
- Our climate variability is increasing
- growers are time-poor and face succession-planning changes

What are we doing about it

Planned actions to build mid Loddon growers knowledge to enable skilled farm production planning

A complete planned event list for 2016 is being sent with this Newsletter .

Save our Old Growth Trees



Little left to lose: deforestation and forest degradation in Australia since European colonization

- Corey J. A. Bradshaw
Extracts

Australia is among one of the world's wealthiest nations; yet, its relatively small human population (22.5 million) has been responsible for extensive deforestation and forest degradation since

European settlement in the late 18th century. Despite most (~75%) of Australia's 7.6 million-km² area being covered in inhospitable deserts or arid lands generally unsuitable to forest growth, the coastal periphery has witnessed a rapid decline in forest cover and quality, especially over the last 60 years. Here I document the rates of forest loss and degradation in Australia based on a thorough review of existing literature and unpublished data.

Important Findings

Overall, Australia has lost nearly 40% of its forests, but much of the remaining native vegetation is highly fragmented. As European colonists expanded in the late 18th and the early 19th centuries, deforestation occurred mainly on the most fertile soils nearest to the coast. In the 1950s, southwestern Western Australia was largely cleared for wheat production, subsequently leading to its designation as a Global Biodiversity Hotspot given its high number of endemic plant species and rapid clearing rates. Since the 1970s, the greatest rates of forest clearance have been in southeastern Queensland and northern New South Wales, although Victoria is the most cleared state. Today, degradation is occurring in the largely forested tropical north due to rapidly expanding invasive weed species and altered fire regimes. Without clear policies to regenerate degraded forests and protect existing tracts at a massive scale, Australia stands to lose a large proportion of its remaining endemic biodiversity.

The most important implications of the degree to which Australian forests have disappeared or been degraded are that management must emphasize the maintenance of existing primary forest patches, as well as focus on the regeneration of matrix areas between fragments to increase native habitat area, connectivity and ecosystem functions.

According to the Victorian Government, ~66% of the state's native vegetation has been cleared since European colonization ([Victoria Department of Sustainability and Environment 2011](#)), leaving 34% of the state's land area covered by native forests (7 837 000 ha; [Fig. 5](#)) ([Australian Bureau of Rural Sciences 2010](#)). According to [Lindenmayer \(2007\)](#), this makes Victoria the most heavily cleared state in the country. Most of the

clearance occurred prior to the 1890s as the wheat and livestock industries expanded with European colonization; thereafter, clearance continued at a relatively stable rate of ~1% per year until 1987 when stringent anti-clearing legislation was introduced (Lindenmayer 2007). However, even from 1995 to 2005, proportional clearance rates remained high and even increased in the latter part of that decade to become the highest among all states and territories in 2005

Forest clearance over large areas also affects local climate conditions such as temperature variation and precipitation patterns (Deo 2011; Deo *et al.* 2009; Junkermann *et al.* 2009; Narisma and Pitman 2003, 2006; Pitman *et al.* 2004). As a result of modifying vegetation cover, the solar energy available for plant transpiration, evaporation and convection between the land and the atmosphere and soil moisture feedbacks are all changed, leading to more rapid local climate anomalies (Deo 2011). Many of these changes are driven by the complex interaction between emissions, global climate and local land-use change. Examining temperature and rainfall patterns in relation to land cover modification, Deo *et al.* (2009) showed that vegetation clearance had added to temperature increases and reductions in rainfall, especially during strong El Niño years, such that droughts lasted longer and were more extreme (i.e. hotter and drier) compared to areas with more vegetation cover. Similar conclusions have been drawn for Queensland (McAlpine *et al.* 2007) and for Australia's tropical savannas via simulation modelling (Hoffmann *et al.* 2002). In Western Australia, there was a rapid decline in rainfall during the 1950–960s, part of which was attributable to forest clearance that peaked during that time (Narisma and Pitman 2003; Pitman *et al.* 2004). Much of this can be explained by the reduced surface roughness following clearance by changing moisture divergence regionally and by increasing wind magnitudes (Pitman *et al.* 2004).

Tree Hollows crucial for our local wildlife.

Tree hollows are essential as nest sites for many vertebrates such as the maternal colonies of some forest bats, and large owls such Powerful

Owls. Sulphur Crested Cockatoos, Galahs and many smaller parrots rely on tree hollows for nest sites.



Marsupials depending on tree hollows include Brush-tail Possum, Sugar glider, Common Ringtail possum and Brush-tailed Phascogale



Don't Flog our Logs!



Logs on the ground under trees are an often overlooked component of old-growth stands. They are important for a variety of reasons, including the return of nutrients to the soil and providing habitat. Logs are used for shelter, feeding, reproduction, basking and nesting. They are important habitats for many invertebrates, reptiles, and provide travel routes for small mammals, as well as being a concentrated source of invertebrates. They may offer nest protection for ground-nesting birds and small mammals. Their moisture content makes them particularly

important as amphibian habitats, including refuge areas during fires. Fruiting bodies of mycorrhizal fungi are often found in decomposing logs and stumps. These provide insects and mammals with nutrients and energy. Logs are predominant among the debris in streams of old-growth forests and woodlands where they provide shelter, fish and frog spawning sites and increased substrate diversity.

Where do our frogs hide in a dry season?

Many sites contain good habitat for a diversity of frogs and just require the occasional maintenance, while others can be improved by active management as suggested below.

- Logs and fallen timber provide important habitat refuge for frogs and other creatures. It is important to leave some areas of timber at dams and creek sites. The natural cycle of dead wood breaking down and fertilising the soil to advance the growth of new trees can continue uninterrupted.
- Opportunities for the decomposers and other creatures that live in the decaying wood have been really compromised.
- Re-snagging creeks may help the development of shallow, slow moving water areas with vegetation which provide frog habitat.
- Frogs and tadpoles need aquatic and emergent vegetation in the waterbody. Allow vegetation to grow in wetland and dam shallows.
- Manage your grazing so that wetland and creek bank vegetation is not impacted. Vegetation along creeklines may brown off in a dry summer, but will re-emerge when conditions improve

The importance of increasing biodiversity on farms.

Biodiversity and agriculture are strongly interdependent.

Biodiversity is the basis of agriculture. It has enabled farming systems to evolve ever since agriculture was first developed some 10,000 years ago. Biodiversity is the origin of all species of crops and domesticated livestock and the variety within them. It is also the foundation of

ecosystem services essential to sustain agriculture and human well-being. Today's crop and livestock biodiversity are the result of many thousands years of human intervention. Biodiversity and agriculture are strongly interrelated because while biodiversity is critical for agriculture, agriculture can also contribute to conservation and sustainable use of biodiversity. Indeed, sustainable agriculture both promotes and is enhanced by biodiversity. Maintenance of this biodiversity is essential for the sustainable production of food and other agricultural products and the benefits these provide to humanity, including food security, nutrition and livelihoods.

Biodiversity is essential to:

- ensure the production of food, fibre, fodder
- maintain other ecosystem services
- allow adaptation to changing conditions - including climate change
- and sustain rural peoples' livelihoods

The diversity of life on our planet is critical for maintaining the basic planetary life support systems we rely on every day. Ecosystem services, or the resources nature provides us free of charge, like drinking water, crop pollination, nutrient cycling and climate regulation. All rely on biodiversity.

For instance, the diversity of insect and bird pollinators is crucial to global agricultural productivity, ensuring plants produce harvestable crops for human use.

Biodiversity is important at all scales of the agricultural landscape. From trees, logs, billions of different soil microbes that help cycle nutrients and decompose organic matter, to wasps and bats that help reduce crop pests, to birds and insects that pollinate high value crops, biodiversity helps farmers successfully grow food and maintain sustainable farm landscapes. For example, although many of our most important crops are wind pollinated and do not require pollinators, 39 of the leading 57 global crops benefit from natural pollinators, such as birds and insects.

But not only does the maintenance of biodiversity help ensure viable crop production, many organisms and species have come to rely on particular agricultural landscapes for their very survival.