

### **Newsletter of The Land For Wildlife Program 2017**

LAND FOR VILDLIFE

**Link to LFW News 2016 Edition** 

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**136 186** 

### Letter from the Editor

Back in 2014 we invited Land For Wildlife members to subscribe to the newsletter online. We also invited members to provide some feedback about what they would like in the newsletter. One of the comments was "please provide *more information on controlling weeds pest animals*". Weeds and introduced animals, otherwise known as pest plants and animals, is definitely one of the more popular topics members have questions about.

In this edition, I have provided two articles on the topic of weeds. "A Sweet End To Weeds" provides some interesting information about eradicating and managing weeds using sugar. While this is not a "new" concept, it reminds us of the range of alternative approaches being developed to manage weeds. The second article, "Early Invasive Weeds", provides information about identifying weeds before they become a significant problem. It helps to know when a weed species is a potential invader, alerting land managers to act on known locations. I will provide more regular articles on weeds in future editions of Land For Wildlife News.

Nature Journaling captured my imagination when I first encountered a beautiful publication by Dr Paula Peters, titled "Make A Date With Nature - An Introduction to Nature Journaling". Writing or drawing about what you see or hear is a fun way of recording observations while you move around your favourite place. It also provides a convenient insight into aspects of your property you may not see in your normal activities.

Mistletoe is often regarded with suspicion. "Mistloetoe: Friend or Foe" explains the ability of various mistletoe species to mimic the foliage of its host, with some interesting ecology worthy of further examination.

I look forward to hearing about your encounters with wildlife, or how you solved a problem in 2018!

*All the best,* 

Peter Johnson Statewide Coordinator Land For Wildlife Victoria

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#### **Land for Wildlife Property Statistics, December 2017**

| LFW<br>Membership | Total<br>Property<br>Area | Habitat<br>Being<br>Retained | Habitat<br>Under<br>Restoration | Total Retained<br>and Restored<br>Habitat |
|-------------------|---------------------------|------------------------------|---------------------------------|---|
| 5,224             | 526,353 ha                | 140,465 ha                   | 22,495 ha                       | 162,960ha                                 |

Cover Image: Hollow stumps provide habitat for many wildlife species. For example, in Box and Ironbark Woodlands, hollows in trees are scarce and stumps often provide the only viable shelter for wildlife such as the Brush-tailed Phascogale (a.k.a. Tuan). Image: P. Johnson.

# Mud-Dauber Wasps

Email to The Editor, From: Judy and Peter Sherlock...... Castlemaine

Hello Peter, thank you for the (2016) Land For Wildlife newsletter. We loved the topics and stories in this edition, especially the goanna and pond stories and are amazed the lengths our members go to get the information on these interesting topics.

At our place in Castlemaine we are experiencing quite a few Mud Wasp Nests, see the photo below (left) of the largest one we have ever seen on our property.

Editor's reply: Thank You Judy and Peter for your positive note. Mud Dauber Wasps are common and widespread in many habitats around Victoria. They come in many colours and sizes, many are black or black and orange, and are usually solitary insects.

Breeding season is the only time Mud Daubers come together. They finish mating in April before preparing to hibernate over the winter in warmer locations. The female alone builds a nest of mud or clay, which looks a little like an organ pipe with a narrow neck. She emits a high-pitched buzz while working the nest, which helps to distribute the mud evenly.

She will often attach it to a tree trunk or a building, wherever it finds shelter from the weather. Some species prefer hollows, but many choose to build under verandas, window ledges, or door frames etc.

Once the nest is finished, the female Mud Dauber hunts out spiders, paralysing them and returning to the nest where she lays an egg on them and seals the entrance. Inside, the egg will hatch and the larvae will eat the food and pupate. When it emerges as an adult wasp, it will chew its way out of the mud nest.

Mud daubers are great to have around your garden as they will control spider and bug numbers. They are great pollinators, feeding on nectar and pollen from native plants. They are not aggressive and will only sting if handled. So long as you give them some space and let them go about their business, they won't bother you.



## Thoona: 30 Years Later

From: Brendan O'Brien

THOONA Land For Wild Life Property

We have a block at Thoona, and started Land For Wildlife about 30 years ago in 1987.

When I bought the block in 1984, there were 20 trees and 200 head of sheep agisted and feeder-fed on 40ac of compacted dirt.

Step 1 was to immediately evict the sheep & begin planting with seedlings from Park Lane native nursery in Wangaratta & seeds I collected & germinated locally. After the grazing was stopped, 12 months later the grasses started returning.

We consider our work a Land For Wildlife success story, with lots of resident species and 1000's of trees and understory plants all self-propagating now.

1. View out the window in summer 1987



2. Same view in summer 2017



3. Olive-backed Oriole observed on the property is one of many species seen coming in.





# **Blotched Blue-tongues Mating**

#### By: Tanya Loos (This article is from her nature Blog: From Forest To Forest)

This year we have discovered to our joy that our kitchen porch is a love nest for blue-tongue lizards. The photos below was taken by my husband Chris – he spotted them in close contact which may have been mating, and went to grab the camera, stepping over them as he did so! When he returned, the blue-tongues were on the door mat, with one gripping the other in a very firm bite on the side of the body.

I posted the photo online to the Field Naturalists Club of Victoria and someone referred to the grip pictured as a "classic love bite". A study of blue-tongue mating habits in Tasmania a few years ago recorded this grip as occurring before, during and sometimes after mating for over an hour! After mating, the blue-tongues return to their solitary habits, and the female gives birth three to five months later.

Blue-tongues do not lay eggs, they give birth to two or three live young that are ready to live independently as soon as they born. Blue-tongue lizards are actually a type of large skink; a member of the big lizard family called Scincidae which has hundreds of species ranging from the big blue-tongues down to the tiny little garden skinks. Some skinks are even legless! The Blue-tongues are distinguished from other skinks by their large size, large heads, short legs and tails and short fleshy tongues. The exception are the Pygmy Blue-tongues, which are fascinating story in their own right! Presumed extinct, a population of these tiny blue-tongues was discovered living in old spider burrows in unploughed grasslands in 1992.

The species on our grassy dry forest block is a Blotched Blue-tongue, a large blue-tongue that is looks very much like its close relative the Eastern Blue-tongue, although the eastern is more distinctively striped in pattern. Their behaviour and ecology is similar, except the Blotched Blue-tongue is a cool climate specialist, and can move about and forage at much lower temperatures than the Eastern.

The recent warm weather has seen many blue-tongues on the move – my heart goes to my mouth when I see one crossing the road and it manages to cross safely. Many others are not so lucky and maimed blue-tongues are a common sight on our roads. The mating study I mentioned before said that in the spring breeding season approximately 95% of the road kill they examined was males – it seems they go out actively searching for the more sedentary females. Poor fellas!!

#### Click here to read more on Tanya's Blog





# Birds Crashing Into Windows

Birds will fly-into a window believing they can see through the glass, thinking that there is a clear flight path to travel through. Parrots are known for doing this, and indeed, is a concern for a number of species with a conservation status, such as the Swift Parrot.

The Laughing Kookaburra is one species which seemingly attacks windows, by pecking or striking them. This is usually because they can see their own reflection, and think it is a challenger for their territory.

Several other birds will also do this, including Ravens, Grey Butcherbird, the Australian Magpie-lark and a number of smaller species such as wrens have been known to do this. Of course, sometimes they may be after a tasty morsel in the corner of the window.

It can be quite distressing when birds hit against your windows. They can injure or stun themselves and leave themselves vulnerable to predators and can even damage fly screens or windows. There is a lot you can do to stop birds from attacking your windows, so that you can live happily side by side.

The following tips are from the Back Yard Buddies website:

#### Remove the launch pad

Often there is a particular branch or railing on your porch that the bird is launching itself from to attack the windows. Remove this branch, or place pot plants or hanging baskets or other items on the railing to make it inaccessible to the bird. If they can no longer see the reflections that are irritating them, then they won't attack the windows.

#### Modify the landing pad

Like the Kookaburra in the image on the next page, the brick work provides a convenient platform for striking the window. Making it difficult to land could be as simple as placing an unstable object in the way.

#### **Check the light situation**

Have a look at the light and shade situation on your windows. Bright light or shade may be what is causing the reflections—so add some shade or trim some foliage as required to remove the reflections on your windows.

#### Remove reflections

- Stick brightly coloured paper or newspaper to the outside of the windows to remove reflections.
- Place a piece of shade cloth, old sheet, towel, fabric or curtain over the outside surface of the window, perhaps from the eaves or window frame. This can be removed once the bird has lost interest. If the bird is striking more than one window, cover all that are being hit. Avoid hanging nets, as they are a common cause of injury to many animals.
- Destroy reflections by painting windows with Bon Ami powder cleanser, white shoe cleaner or similar preparations, until the breeding season is over, which is typically from September to January each year.
- Add shutters to the outside of the windows, or install anti-glare screens over windows.

#### Block the flight path

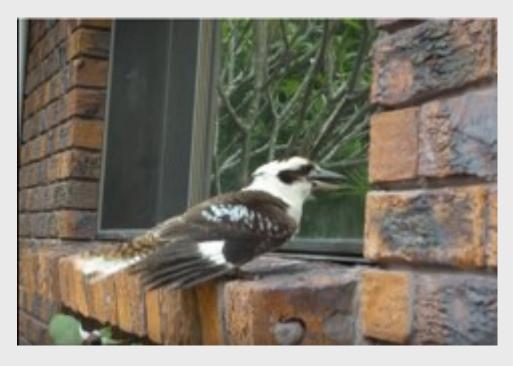
- Place something in the flight path the bird is using to attack the windows. For instance, hang baskets or place hanging potted plants in front of windows
- Place a pot plant or a few potted plants inside in front of the window so it no longer looks like an open flight path
- Close the blinds on any windows that can be seen through the window that the bird is striking, so that it no longer looks like an open flight path
- Hang multiple strands of rope or other material over the windows. Place them away from the window at least the same distance as the overall length of the bird. This will impair the bird's flight, and potentially change the image the bird is responding to, and still allow light to enter your windows
- Blow up a balloon and hang it in front of the window (inside or outside the house—see which is more effective). You can also draw a face on the balloon to make it extra confusing to the bird

#### **Avoid feeding**

- Avoid feeding birds as this encourages them to come closer to our homes where they are at greater risk from pet attacks and traffic accidents, and can cause problems. Birds and other native animals are fantastic at finding their own food
- If a neighbour is feeding birds, perhaps have a friendly chat to them about the subject. It's great to provide water and locally native plants in the garden instead for birds. You can still enjoy wildlife without feeding

#### Get creative

- Cut out the shape of a bird of prey such as a hawk, falcon or eagle, and stick it to the inside of your window. If the bird thinks a predator is near the window (or its shadow) it may avoid the window
- Buy a window decal in the shape of a bird of prey stick to the window.
- Create a bird of prey mobile and hang it in the window. Try searching 'hawk silhouette', 'falcon silhouette' or 'eagle silhouette' for inspiration. Try printing these cut outs and hanging them near the window.



Click here to view this Kookaburra striking the window

# **Nature Journaling**

Ever heard of Nature Journaling? It is a fun and creative way of connecting with nature, either on your property or another place you love to visit. Or, it can simply be a way of recording what you see in your everyday movements. Anyone can benefit from nature journaling. It can be incorporated into a diary of recordings supported by illustrations. Here, we take inspiration from Dr. Paula Peters' inspiring website and books she has created. Also, we have some drawings sourced from the Land For Wildlife "way-back" archives, some of which you may remember. Back then they were probably in black and white, but here we reproduce them in marvelous colour, supporting Paula's informative definition:

#### "What is nature journaling?

Nature journaling is the practice of drawing or writing in response to nature. This fun, relaxing practice helps you to connect more closely with nature, and results in the creation of your own unique nature journal. Both the practice and the end product are important.

The practice calms your mind, and increases your attention to detail and appreciation of beauty. It improves your recognition of different animal and plant species, and your understanding of where and how they live. With time, it also improves your ability to observe, to draw and to write.

A journal allows you to capture the moment (a sunset, a view, a critter, a flower, a fungus...), and recall observations which would otherwise be forgotten. The entries in your journal can give you inspiration for other creative projects, such as writing, painting, textiles, music, other crafts... the opportunities are endless. A nature journal can also be used to compile species sightings and other more scientific observations that are of great value to citizen science projects.

A journal can be anything you want it to be. Mine ranges from the personal to the scientific, from records of facts and realistic images to imagined beasts, scenes and stories. And many things in between. "



Drawing from the Land For Wildlife archive, 2004.

# **Nature Journaling**

(Continued)

Children have a natural ability for playfulness and connecting with nature. One of the ways they do this is through drawing. While drawing maybe something we associate with children and childhood, as adults we have an opportunity to record events, objects, or plants and animals going about their business. Keep a camera or sketch pad on-hand and look for opportunities to record the little things you see on your property. It will help you to engage and connect with those things you may not see normally.

#### "Why do it?

Nature journaling allows you to spend time in nature, just sitting or standing quietly, and being. It's an antidote to our busy, technology-infested lives. Spending quiet time in nature is good for our physical and mental health. As the world becomes crowded, and more people are living in urban areas, we are also becoming less connected to nature. This disconnect probably contributes to increasing levels of anxiety and depression in human society. The simple practice of nature journaling can help us to reconnect with nature, and remind us of the resilient and beautiful life that is part of our world, and part of us too.

When you are quiet and still, the animals become less scared, and they forget that you are there. Often you will get to observe animal behaviour that most people don't get to see, because those people are too fast, too noisy, or are distracted by something else."

Paula Peters, Make A Date With Nature - An Introduction to Nature Journaling (2016)



Drawings from the Land For Wildlife archive, 2004.

## A Sweet End to Weeds

The following article is extracted from a paper written by Margrit Beemster, 2005.

Sugar has the potential to control annual weeds, according to research conducted by Charles Sturt University. The researchers, ecologists Dr Suzanne Prober, Dr Ian Lunt and Dr Kevin Thiele, have applied sugar to trial plots for a project funded by the NSW Environmental Trust on how to restore understorey species in endangered Grassy White Box Woodlands.

Trials on a private property "Windermere", and a travelling stock reserve "Green Gully" near Young in central NSW have provided dramatic results, with Paterson's Curse and Wild Oats flourishing in untreated plots whilst plots treated with sugar had far fewer annual weeds.

#### Non-chemical alternative

The researchers have found that sugar provides a good, short-term non-chemical and ecologically friendly method of weed control. "It appears sugar is a tool we can use to help change a system back to one dominated by native species rather than weeds," says Dr Suzanne Prober who has been working to conserve and restore grassy white box woodlands for the past 15 years. Nearly all of the woodland belt, from southern Queensland to north-east Victoria is now used for agricultural purposes, principally wheat and sheep.



Pater-Curse.

son's Imag-

es: Department of Agriculture and Food

So why does the sugar work? Because it is one of the fastest ways of reducing soil nitrate levels. Dr Prober's compared soil nutrients in undisturbed woodlands and disturbed, degraded sites. She found the most striking difference between the two was in nitrate levels, which were extremely low in undisturbed remnants and high in degraded remnants.

"It seems that many of our weed problems are due to high nutrient levels", says Dr Prober. "There is an enormous amount of information on how to increase soil nitrogen to improve crop growth, but very little on doing the reverse. However there has been some research done overseas where sugar was used to tie up nitrogen levels for a short time."

## A Sweet End to Weeds

### (Continued)

#### **Sugar Trials**

The researchers, who spread half a kilogram of refined white sugar to each square metre of soil every three months, found this inhibited weed growth of most annual weeds giving the native plants the opportunity to become well-established. However more research is required to work out the optimum rate of application. "We realise that the sugar levels we used in our trials would not be economic to use over broad scales", said Dr Prober, "but at the moment we don't know if we would get similar results if we used less sugar or if we used cheaper alternatives such as molasses or sawdust".



Control plot (left) which has had no burning or sugar treatments, showing a dominance of weeds and very poor establishment of Kangaroo Grass.





So

how does sugar reduce soil nutrients? "When sugar is spread on the soil, it feeds soil microorganisms, which then absorb lots of soil nutrients as they grow," explains Dr Ian Lunt from CSU's Institute for Land, Water and Society. "The micro-organisms then hold these nutrients so the weeds can't gobble them up. In effect we are 'starving' the weed species that require lots of nutrients to grow." The lack of nutrients stopped the weeds from growing large, allowing the native plants, which can grow well in low nutrient levels, to grow bigger and faster.

While the researchers are primarily interested in using sugar as a tool to help restore the understorey species in grassy box woodlands, they are aware their research could be the basis for other more agriculturally driven research. "Broad leaf weeds such as Paterson's Curse are the bane of every farmer's life. Once infestations get very bad, it gets very difficult to control them," said Dr Lunt.

### A Sweet End to Weeds

(Continued)

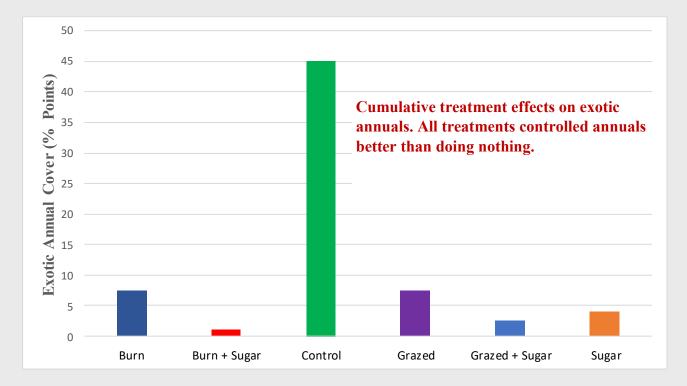
#### Part of the Picture

"We see what we have done so far as only part of the picture," says Dr Prober. "There are a number of directions we would like to go. One of our Honours students, Lisa Smallbone, is looking at whether sugar helps us to re-introduce native wildflowers into degraded sites. If the wildflowers establish well, we want to find out if they contribute to weed control and soil nitrogen cycling later on. Our long term goal is to get back the native understorey by working out the best method to re-establish a native ecosystem that is self-sustaining and resistant to invasion by weed species."

Using sugar as an organic weed control, to help to restore endangered woodlands and native grasslands, is an innovative alternative to using herbicides. "Herbicides are difficult to use in many remnants because they kill the native plants you are trying to save as well as the weeds," says Dr Lunt.

Image at right: Sugar application (right) dramatically reduced exotic annuals which dominated untreated areas





Further reading: <u>Add Sugar and Kangaroo Grass and Burn in Spring - A Recipe for Success in Woodland Understorey Restoration?</u>

# Early Invasive Weeds

(Article by Rebecca James, Program Officer Pests and Weeds)

#### Keeping your eyes peeled for new weeds!

We all know there are lots of weeds in the landscape and there are some that have persisted for decades and stayed put mostly in one spot while others have increased in size rapidly in short periods of time.

As you drive around your local area or property it's a good idea to keep a look out for any new weeds popping up and trying to identify them early before they become the next 'Blackberry' and become widespread and difficult and costly to control.

Weeds can spread via natural means such as wind and birds or through human contact such as illegal garden rubbish dumping and contaminated (with weed seeds or segments) boots or vehicle tyres.

Some high-risk areas to keep eye on include:

- ♦ High use areas such as recreational sites, roadside rest stops, picnic areas, walking or riding tracks
- Former town or house sites
- ♦ Tracks, roadsides

There are a range of resources available (books, websites, mobile phone apps) which can assist with correctly identifying a plant. If you find something a bit odd, it's best to take a photo first rather than a specimen as it could in fact be a rare plant! If you'd like to know more about to how to identify new weeds, how to search for them and how to plan an appropriate weed control plan, the Department of Environment, Land, Water and Planning (DELWP) has developed a six-part guide series focused around weeds at the early stage of invasion. It can be accessed via the DELWP website (link below):

https://www.environment.vic.gov.au/invasive-plants-and-animals/early-invaders







## Mistletoe: Friend or Foe?

(Article by Kelsey Tucker, Land For Wildlife Officer, Bendigo)

#### Mistletoe: friend or foe?

Mistletoe is an enigmatic plant typically occupying the branches of many Australian shrubs and trees, such as Eucalypts and Wattles. Mistletoe is a partial parasite meaning that it draws water and minerals from the host but produces its own energy via photosynthesis. Easily overlooked due to the ability of various species to mimic the foliage of its host, mistletoe has some interesting ecology worthy of further examination. Eighty-nine mistletoe species are currently recognised in Australia represented by members of the Loranthaceae and Viscacae. Seventeen species of Mistletoe occur in Victoria, eight of which are present in the Central Victoria region. The largest genus of mistletoe in represented is *Amyema*.



**Box Mistletoe** (*Amyema miquelii*) Photo: Graham and Maree Goods

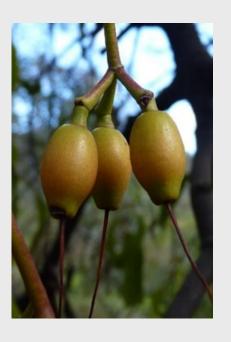


Photo: Neil Blair

All Australian mistletoes, except two species, occupy branches with no direct contact with soil. So how does Mistletoe get around in the landscape? Mistletoe is dispersed by Mistletoebird (*Dicaeum hirundinaceum*) and Painted Honeyeater (*Grantiella picta*), which consume the sticky glucose-rich fruits of Mistletoe. The highly specialised digestive system of the Mistletoebird allows for rapid passing of the seed – 6-14 minutes. These two species lack the muscular gizzard (food-grinding organ) of other birds that would otherwise damage the seed. Instead the nutrients of the flesh are absorbed and the sticky seed excreted onto branches. Painted Honeyeater is a spring-summer migrant to south-eastern Australia while Mistletoe bird may reside in the one area depending on the availability of fruit which can be all-year-round (Reid, 1986).

## Mistletoe: Friend or Foe?

(Continued)

| Scientific Name          | Common Name         | Host plant (some examples, dominant plant in <b>bold</b> )  |
|--------------------------|---------------------|---|
| Amyema linophylla        | Buloke Mistletoe    | Many hosts – e.g. <i>Acacia</i> , <i>Allocasuarina</i>  |
| Amyema miquelii          | Box Mistletoe       | <b>Eucalyptus</b> (often in the box group), sometimes<br>Acacia   |
| Amyema miraculosa        | Fleshy Mistletoe    | Many hosts – e.g. <i>Allocasuarina</i> , <i>Callitris</i> , <i>Eucalyptus</i>                                   |
| Amyema pendula           | Drooping Mistletoe  | Acacia, Eucalyptus and others   |
| Amyema preissii          | Wire-leaf Mistletoe | Acacia and others   |
| Amyema quandang          | Grey Mistletoe      | Acacia and others   |
| Lysiana exocarpi         | Harlequin Mistletoe | Many hosts – e.g. Acacia, Allocasuarina, Bursaria, Citrus*, Dodonaea, <b>Eremophila</b> , Eucalyptus, Melaleuca |
| Muellerina eucalyptoides | Creeping Mistletoe  | Many hosts - Acacia, Allocasuarina, Callitris, <b>Eucalyptus</b> , Exocarpos, Leptospermum, Melaleuca           |

#### Mistletoe, yum yum

Honeyeaters are the principle pollinator of Australian Mistletoes, drawn to the abundant nectar of the bright flowers. Honeyeaters are the most effective pollinators of *Ayema*, which has partially fused petals to create a tube that enables effective pollination by birds. Visitors to Box Mistletoe (*Amyema miquelii*), include but are not limited to, Spiny-cheeked Honeyeater, Singing Honeyeater, Red Wattlebird, White-eared Honeyeater, Yellow-tufted Honeyeater, Purple Gaped Honeyeater, and New Holland Honeyeater. Mistletoe also has natural enemies and is predated by possums, gliders, parrots, butterfly larvae (*Delias* and *Ogyris* caterpillars) (Reid 1986, ANBG).



Image: A Mistletoebird carefully extracting a sticky mistletoe fruit from the tough outer skin. Photo: Chris Tzaros

## Mistletoe: Friend or Foe?

(Continued)

There is also emerging evidence of Mistletoe as a keystone resource. A keystone resource plays a central role to the functioning of the ecosystem. You may have heard of otters controlling sea urchin populations that feed on kelp, thereby the presence of otters enables kelp forests to persist. In a woodland-scale experiment, south-eastern New South Wales, Mistletoe (primarily Box Mistletoe) was removed from 17 sites (in a sample of 40 sites) with 20.9 percent of bird species lost (Watson and Herring, 2012). Losses were not only seen in species that feed and nest in Mistletoe, but more broadly in the assemblage of woodland birds. Insectivorous birds (e.g. choughs, babblers, robins, shrike-thrush) were higher in Mistletoed patches. A possible explanation for this is the increased leaf litter-fall created by the Mistletoe which sheds leaves far more frequently than its hosts. This provides increased nutrients and habitat for insects, and in turn a food source for ground-foraging insect-eaters.

#### Mistletoe over-abundance in disturbed landscapes

Mistletoe over-abundance is a symptom of a fragmented landscape and changes in land use. Mistletoe may colonise more readily when a host is favoured by suitable dispersal conditions, resulting in the decline of tree health, further supporting the spread of Mistletoe. Compaction of soil by cattle and sheep and elevated nutrients can also lower tree health, and lead to a greater chance of Mistletoe establishment. A well-known image is the isolated paddock tree with large clumps of Mistletoe throughout the canopy. However, within large patches of bushland, Mistletoe is kept in check by natural predators and fewer trees experiencing stress.

Reducing the ability of Mistletoe to spread involves managing the conditions for Mistletoe species to colonise. Some species may take advantage of stressed hosts or other conditions which favour colonisation. Tips for reducing the spread of Mistletoe include supporting natural predators such as gliders and possums by providing nest boxes, where natural hollows are not available. Dimensions of nest boxes are provided below. (Source: LFW Note No 14 –internal dimensions are in millimetres.) Remember, if nest boxes are for public land, approval is required from the public land manager (such as DELWP or Parks Victoria).

| Species               | Height | Depth | Width | Entrance |
|-----------------------|--------|-------|-------|----------|
| Brushtail<br>Possum   | 500    | 250   | 290   | 100-120  |
| Ringtail Pos-<br>sum  | 400    | 240   | 200   | 70-80    |
| Sugar Glider/<br>Tuan | 400    | 240   | 200   | 32-35    |

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## Mistletoe: Friend or Foe?

### (Continued)

Depending on the severity of colonisation, some methods to control Mistletoe may involve using fire, chemical folair sprays or injecting the host tree, manual removal or pruning affected branches. However, revegetating and removing livestock which compact the soil around trees are generally the most cost effective, more environmentally friendly and least damaging options.

Mistletoes may also die during drought due to their lack of stomatal regulation. However, they can create a 'leaky tree' that leads to death of the host.

Without addressing the underlying causes of Mistletoe overabundance, ongoing control of Mistletoe is required. A balanced approach to Mistletoe control is recommended that carefully considers the importance of this resource to woodland fauna.

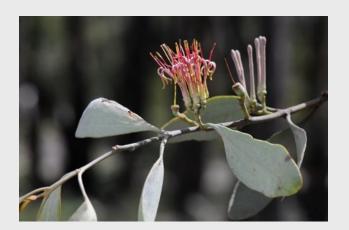




Photo: Ian Clarke



Photo: Neil Blair

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# **Recent Publications**



**The Australian Bird Guide** sets a new standard in field guides, providing an indispensable reference for all birders and naturalists looking to explore Australia's magnificent and unique birdlife.

The guide features around 4700 colour illustrations, with particular emphasis on providing the fine detail required to identify difficult groups and distinctive plumages. Comprehensive species accounts have been written by a dedicated team of ornithologists to ensure identification details, distribution and status are current and accurate.

The Australian Bird Guide sets a new standard in field guides, providing an indispensable reference for all birders and naturalists looking to explore Australia's magnificent and unique birdlife.

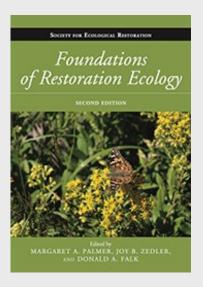
Winner of the 2017 Whitley Medal

Available from CSIRO Publishing. <u>Click here for more information</u>. Or copy and paste the following website address into your internet browser: <u>http://www.publish.csiro.au/book/6520/</u>

**Foundations of Restoration Ecology** provides the latest emerging theories and ideas in the science of restoration ecology. The practice of ecological restoration is a means to halt degradation and restore function and resilience to ecosystems stressed by climate change and other pressures on the natural world.

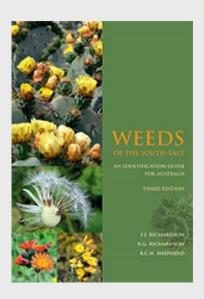
One-third longer than the first edition and comprehensive in scope, it has been dramatically updated to reflect new research. Also new to this edition are case studies that describe real-life restoration scenarios in North and South America, Europe, and Australia.

Written by acclaimed researchers in the field, this book provides practitioners as well as graduate and undergraduate students with a solid grounding in the newest advances in ecological science and theory.



Available from CSIRO Publishing. <u>Click here for more information</u>. Or copy and paste the following website address into your internet browser: <a href="http://www.publish.csiro.au/book/7761">http://www.publish.csiro.au/book/7761</a>

### **Recent Publications**



**Weeds of The South-East** is a fully updated comprehensive identification guide for weeds in the south-east region of Australia. This third edition has been fully updated and re-organised to recognise recent taxonomic changes and includes additional species and photographs.

The book includes weeds of agriculture, bushland, waterways, gardens, and roadsides, as well as new and emerging species, with more than 3000 photographs. Key features include easier identification and comparisons to similar species and easily confused natives.

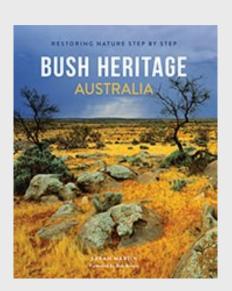
An essential tool for community land and bush care organisations, local and state government weed officers and advisers, rangers, agronomists, agriculturists, survey and identification botanists, horticulturists, landscapers and gardeners.

Available from CSIRO Publishing. <u>Click here for more information</u>. Or copy and paste the following website address into your internet browser: <a href="http://www.publish.csiro.au/book/7656/">http://www.publish.csiro.au/book/7656/</a>

**Bush Heritage Australia** is the story of how land was obtained, repairing environmental degradation and bringing native plants and wildlife back to health. Bush Heritage plans to own or manage one per cent of Australia by 2025.

Started by Bob Brown in 1991, Bush Heritage was born from an urgent mission: to protect pristine land from logging. Twenty-five years later, with more than one million hectares in its care, Bush Heritage's achievements are celebrated in this book.

Central to this story are the ecologists, researchers, land managers, local Indigenous groups, staff, donors and a brigade of volunteers who have helped the organisation to thrive.



Available from CSIRO Publishing. <u>Click here for more information</u>. Or copy and paste the following website address into your internet browser: <a href="http://www.publish.csiro.au/book/7797/">http://www.publish.csiro.au/book/7797/</a>

#### **Land for Wildlife Contacts**

Land For Wildlife Officers and Contacts are at the following Department of Environment, Land, Water & Planning office locations:

#### Alexandra, Benalla, Wangaratta, Wodonga & Upper Murray Areas

Nigel Waterhouse 5772 0265

nigel.waterhouse@delwp.vic.gov.au

#### **Bairnsdale & Orbost**

Kylie Singleton (03) 5172 2123 kylie.singleton@delwp.vic.gov.au

#### **Ballarat**

Elspeth Swan (03) 5430 4358 peter.johnson@delwp.vic.gov.au

#### **Bendigo**

Kelsey Tucker (03) 5430 4631 kelsey.tucker@delwp.vic.gov.au

### Central, South & West Gippsland

Kylie Singleton (03) 5172 2123 kylie.singleton@delwp.vic.gov.au

### Heywood, Portland & Warrnambool

(03) 5430 4358 peter.johnson@delwp.vic.gov.au

#### **Horsham & Grampians**

(03) 5430 4358

peter.johnson@delwp.vic.gov.au

#### Melbourne & Port Phillip Geelong & Colac Areas

(03) 9210 9326

john.hick@delwp.vic.gov.au

#### **Interstate & International**

Peter Johnson Tel: (03) 5430 4358 International +61 3 5430 4358 peter.johnson@delwp.vic.gov.au

## **Resources & Events**

#### **Statewide Integrated Flora and Fauna Teams (SWIFFT)**

<u>SWIFFT</u> aims to maintain and develop knowledge and skills in relation to the protection and management of threatened species and biodiversity across Victoria.

#### **How to Participate:**

You can attend quarterly <u>SWIFFT</u> video conferences held around Victoria. To participate, contact the nearest DELWP office in the list to the left. Dates for each event are listed on the <u>SWIFFT</u> website.

#### Report environmental crime

DELWP receives more than 300 calls each year from members of the public with information about environmental crimes.

These calls range from wildlife smuggling, keeping or selling native or high risk invasive species without the relevant permit, and the removal of native plants and animals from the wild.

However, there are still people illegally removing, killing and trading animals from the wild.

Please help put a stop to it.

Report environment, wildlife and forestry crime to 136 186 or email <a href="mailto:customer.service@delwp.vic.gov.au">customer.service@delwp.vic.gov.au</a>

#### Breakfast With The Birds, 2018

When: Sunday 4th of Feb, 2018 – 5am to 10:30am

Where: The event will be held at Hird Swamp, Macorna North.

**RSVP**: Registration is essential and places are limited. Please register by 1 February at <u>Eventbrite</u> (search Breakfast with the Birds 2018) or by contacting the NCCMA on 5448 7124 or email <u>info@nccma.vic.gov.au</u>

**Bring**: Bring a hat, water bottle, chair if required, binoculars & camera (optional). Please dress for the weather including long pants and enclosed footwear.

**Cost**: This is a FREE EVENT. Coffee, tea and a light breakfast will be provided.