



LAND FOR WILDLIFE

SOUTH EAST QUEENSLAND

MAY 2025 VOL. 19 NO. 2

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Land for Wildlife South East Queensland Team,
 December 2024

Land for wildlife

SOUTH EAST QUEENSLAND SNAPSHOT



5,680
 TOTAL
 PROPERTIES



4,534
 REGISTERED
 PROPERTIES



1,146
 PROPERTIES
 working towards
 RESTORATION



84,596^{ha}
 RETAINED HABITAT

9,768^{ha}
 Habitat Under
 RESTORATION



77,837
 iNaturalist
 OBSERVATIONS

14,256
 Facebook Followers

www.inaturalist.org/projects/lfwseq

To join contact your local LfW Officer

Land for Wildlife South East Queensland acknowledges this Country and its Traditional Custodians. We acknowledge and respect the spiritual relationship between Traditional Custodians and this Country, which has inspired language, songs, dances, lore and dreaming stories over many thousands of years. We pay our respects to the Elders, those who have passed into the dreaming; those here today; those of tomorrow. May we continue to peacefully walk together in gratitude, respect and kindness in caring for this Country and one another.

Land for Wildlife is a voluntary conservation program that encourages and assists landholders to provide habitat for wildlife on their properties.

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Front Cover: An adult Rose-crowned Fruit-dove feeding on the fruit of White Cedar (*Melia azedarach*), one of the few deciduous native trees of SEQ.

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 Michael Reif and Todd Burrows.

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This autumn in SEQ has been one of the wettest on record with some locations receiving their highest March rainfall totals ever. The soaked soils have made tree planting a priority for many landholders. It has also been a delight to see fresh growth and flowers on many native plants. The weeds however are also in their heyday. This is a time to lean into controlling only priority weeds and trying to protect the best, most resilient parts of your property – your Land for Wildlife property report should provide a guiding light on how to do this.

While the real autumn colours of sub-tropical Australia are verdant greens and soft pinks of new growth, in my mind autumn is still the colours of falling deciduous northern hemisphere leaves. According to Sue's article on pg 3, I have a case of GSMI (geographically misplaced seasonal imaginings), and I know I am not alone! If I look out from my back deck, the 'deciduous' Flame Trees and White Cedars are looking lush and green. No rusty orange colour there. These trees may lose their leaves, but it won't be in response to cooler autumn temperatures. Thanks Sue for helping to correct my bias.

Given the perfect growing conditions over the past few years, the biomass in many forests has built up substantially. This has got some landholders thinking about fire and how to use 'good' fire to mitigate 'bad' fires. Tony's story in this edition explains how he learnt about fire management and gained the confidence to put in a small one hectare 'cool' burn on his property.

I use the terms 'cool' fire and 'good' fire here interchangeably. They refer to low intensity fires that have low flame heights and burn when there is good soil moisture. These cool fires target grasses and small shrubs in patchy ways, leaving areas unburnt. Mature trees should remain unburnt during cool fires. The opposite of a cool fire is a hot, damaging wildfire, which is terrifying and cooks the environment killing wildlife and the invaluable old-growth, hollow bearing trees.

First Nations people have been using cool fires for thousands of years to prevent hot wildfires. They created cultural landscapes that protected the big old trees and provided an abundance of food for their communities and wildlife. Indigenous cultural fire regimes are still carried out in many regions and are gaining more recognition as being an antidote to wildfires.

So thank you Tony for sharing your story and I hope it inspires others to walk further down the path of fire management.

Please note that there are many ecosystems in SEQ (e.g. vine scrubs, Brigalow and subtropical rainforests) that are fire sensitive, and fire should not be used as a management tool in these forests. Learning about the ecosystems that you have on your property is the first step, and your Land for Wildlife Officer can help you with this if you need advice.

I hope this edition is useful for you and wherever you are on your conservation journey. Thank you for those who have shared their stories, and I welcome all feedback and contributions.

Deborah Metters
Land for Wildlife Regional Coordinator

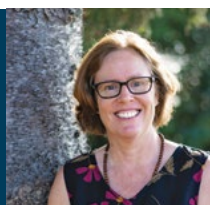
We welcome all contributions.

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Climate & Weather

REGIONAL OUTLOOK Apr - Jun 2025



Daytime and Night-time Temperatures.

Above average daytime and night-time temperatures are very likely with an increased chance of unusually high night-time temperatures.



Rainfall. Above average rainfall is likely.



Streamflow. Median streamflows are forecast.

Climate Influences

- El Niño-Southern Oscillation (ENSO) is neutral.
- The Indian Ocean Dipole (IOD) is neutral.
- Australia's climate has increased by 1.5°C between 1910 and 2023 leading to an increased frequency of heatwaves.
- Australia's sea surface temperatures (SSTs) in February 2025 were the warmest on record for all Februarys. Warm SSTs increase atmospheric moisture and energy that can favour more severe storms and the start of tropical cyclones.

Sources

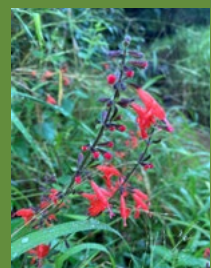
www.bom.gov.au/climate/outlooks/ and www.bom.gov.au/water/ssf/

Weeds to Watch Apr - Jun 2025

Here are more garden ornamental plants that have jumped the fence and are now in bushland areas of SEQ.

Red Salvia or Scarlet Sage

(*Salvia coccinea*) - the bright red flowers are now on show. Plants can grow to 1m high. Crushed leaves are fragrant.



Mintweed (*Salvia reflexa*) is

another exotic sage (*Salvia* species) that has fragrant leaves when crushed. Look for the tall stalk of white flowers. Control these exotic sages by hand-pulling the whole plant or foliar spray with herbicide.



Morning Glory (*Ipomoea*

purpurea) - these big pink flowers stand out. This vine can grow rapidly and will smother and kill the shrubs under it. Control by pulling down the vine and then foliar spraying or just foliar spraying if it is large uniform mass.



Deciduous

NATIVE TREES

For many Australians, the idea of autumn conjures an image akin to the whimsical quote below - of colourful leaves blown helplessly in strong gusts of chilly pre-winter wind and of trees cloaked in dying leaves turning gold, red and orange. And yet, Australia is virtually void of deciduous native trees and those that do shed their leaves, don't do it in autumn and keep their best colours for new growth.

In Brisbane, even the imported deciduous trees don't stick to the rules as it rarely gets cold enough in autumn for them to put on much of a show. So, like snow at Christmas, our geographically-misplaced-seasonal-imaginings (GMSI) can be blamed firmly on what we have watched on telly, read in books, received on greeting cards or experienced first-hand visiting countries north of the equator.

If you suffer from a bit of GMSI, its time you knew the facts! Australia has only one true temperate deciduous tree that changes colour and loses its leaves in response to cold, and it lives in the chilly highlands of Tasmania - the Deciduous Beech (*Nothofagus gunnii*). This is the only native tree that puts on a stunning autumn display before dropping all its leaves in anticipation of cold winter weather.

There is only a very small handful of deciduous and semi-deciduous native trees that occur in the sub-tropics that lose all or some of their leaves, but they do this in response to dry weather or flowering and not the cold. This typically means that most Australian deciduous trees lose their leaves in winter and spring when it is driest, not in autumn. These trees are often referred to as 'drought-deciduous'.

To name a few in SEQ, we have Red Cedars (*Toona ciliata*), White Cedars (*Melia azedarach*) and the figs, White Fig (*Ficus virens*) and Strangler Fig (*Ficus henneana*).

Some trees can be partially or fully deciduous and may lose some or all of their leaves just prior to flowering. Flame Trees (*Brachychiton acerifolius*) and Silky Oaks (*Grevillea robusta*) are the best-known examples of this locally.

So, we Australians must rewrite the books and reprint the greeting cards and correct our GMSI and claim our true autumn. We must talk about our trees changing their outfits in response to the dry, not the cold. Let's proudly talk of trees being dressed in red and gold flowers or beautiful new growth. Let's fully embrace and promote the subtle and delicate beauty that is uniquely Australian.

Article by Sue Nolan
Land for Wildlife Officer
Brisbane City Council

"Come, little leaves" said the wind one day,
"Come o'er the meadow with me and play.

Put on your dresses of red and gold.
For summer is gone and the days grow cold."

George Cooper



From top: Flame Tree and Silky Oak in flower. White Cedar with yellow leaves that are about to drop.
Photos by Martin Bennett.

FROM *Paddock to Forest*



Maureen standing in front of one of her fenced-off revegetation areas.

When Maureen and her husband first moved onto their property in Coolabine on the Sunshine Coast over 30 years ago, the drainage line on their property was no more than a grassy depression in an active grazing paddock. Fast forward to 2024 and now the drainage line is a forested riparian zone, with a creek system of flowing water, secondary recruitment of native trees and an abundance of habitat for local fauna. The creek line helps to provide a vital riparian linkage across mostly cleared agricultural land in the valley bottoms of the upper Mary River Catchment.

The story of how Maureen transformed the landscape on their property offers many lessons in planning, outreach and perseverance that other landholders in a similar situation can learn and take inspiration from.

The revegetation areas have been planted in stages beginning more than 15 years

ago. With each stage, fences were erected to exclude stock from the newly planted riparian zone. While this level of planning may seem daunting to a landholder just beginning their revegetation journey, Maureen humbly insists that at the beginning “we just started somewhere, and it evolved from there.”

Along the way they overcame many difficulties, including drought, flooding, meeting the demands of revegetation maintenance and cattle that insisted on ignoring the presence of newly erected fences.

To tackle these challenges, Maureen actively sought assistance from local government and non-governmental organisations, including the Sunshine Coast Council Land for Wildlife program and her local catchment group, the Mary River Catchment Coordinating Committee (MRCCC). Both organisations have helped with planning, species selection and execution of the planting projects.

Maureen has also applied for and received funding from the Sunshine Coast Council Landholder Environment Grants for nine successive years and will continue to apply for the foreseeable future.

Last year, Maureen was gracious enough to host a field day on her property with other Land for Wildlife members, giving valuable insight into both the logistics of fencing and revegetation. In addition to the technical insights, the opportunity to see what has been accomplished served as motivation for landholders unsure about the prospect of large-scale planting.

When asked to give one piece of advice for landholders wishing to embark on a similar journey, her response was simple, “Start somewhere and don’t give up.”

**Article by Chad Oliver
Land for Wildlife Officer
Sunshine Coast Council**

Mowed to Meadows

PART 2

In Part 1 (February 2025 edition), we talked about how using natural bush regeneration methods is transforming fields of weeds (which we had mowed and sprayed for twenty years!) into vibrant native meadows.

As well as the diversity of grasses and sedges highlighted in Part 1, our meadows are teeming with an abundance of beautiful flowering native herbs.

The amazing kaleidoscope of colour is shown in this selection of pictures.

During our journey we have documented and recorded on iNaturalist these and all the other naturally occurring native plant species on our property. So far, we have found 162 different native flora species on our property. All observations are also recorded on the Land for Wildlife SEQ iNaturalist project, which we see as an important contribution to showcasing biodiversity in our region.

We are indebted to fellow bush regenerators and the Queensland Herbarium for assistance with identification of many species especially grasses which can be difficult to identify. Fauna is now also being included, with beetles, bugs, butterflies and other wildlife forming part of our documentation. Early advice which we valued was to photograph everything, and to keep a visual record of changes. This includes pictures of plants from dormancy to flowering, seeding and seasonal growth phases. It has given us not just a reference point over time, but a record of our property

and how the native plants are growing on our land.

Sometimes we still wish we had started our regeneration journey earlier. This now is tempered with the realisation that time can heal the country quickly. Native plants have emerged on our property with a shout, not a whimper. The diversity of the property is its great asset, with a natural seed-bank that had been laying dormant for years until it was given the advantage to grow. Successive good wet seasons have generated an explosion of plants, giving us insight into how much can change in one year.

These bountiful seasons won't always persist, but we know it's important to celebrate successes along the way. We did this with our mentors in July 2023 after our first year of regeneration. Here's a link to a YouTube video we prepared for that occasion <https://youtu.be/2cH1WwY2YE?si=2HpKk3Inlj8qEuVG>

We can now say that our initial level of despair and being overwhelmed has dissipated as we have learnt how to work with our land, and to manage the weeds so that their spread is contained. We have learnt nothing is an obstacle, that there is a non-herbicide solution for each weed species, and importantly that nature knows best. When given the opportunity and space to breathe, all it needs is a little time to spread its seed and reclaim the bush...and meadows!

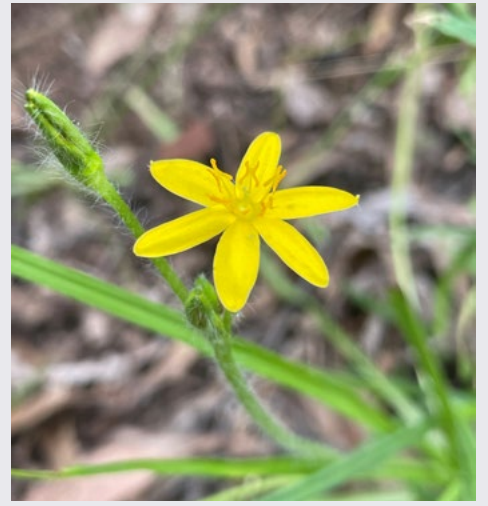
Article by Tim and Cathie Albers
Land for Wildlife members
Mount Crosby, Brisbane City Council



BEFORE: Invasive vines of Yellow Bells and Balloon Vine smothered native trees and shrubs.



DURING: We ringbarked weed trees and hooded stumps of weedy vines with black plastic. We methodically removed every weed by hand in small, manageable 'Bradley Islands' and used tree poppers to pull up Ochra.



Photos L to R, top to lower

1. White Root (*Lobelia purpurascens*)
2. Austral Bugle (*Ajuga australis*)
3. Golden Weather-grass (*Hypoxis hygrometrica*)
4. Bell Vine (*Ipomoea plebeia*)
5. Zornia (*Zornia muriculata*)
6. Slender Bindweed (*Polymeria calycina*)
7. Scurvy Weed (*Commelina diffusa*)
8. Rusty Tick Trefoil (*Desmodium rhytidophyllum*)
9. Tropical Speedwell (*Evolvulus alsinoides*)
10. Little Tephrosia (*Tephrosia filipes*)

Fire Destroys & RENEWS

Fire plays a huge role in most of Australia's ecosystems. We often hear about extreme and intense fires, but it is becoming increasingly known that many ecosystems have evolved with fire, and often need it to replenish and to grow. This knowledge was recognised by First Nations peoples as they evolved with the land.

It sometimes feels complicated to implement a fire management strategy in a predominantly peri-urban region. Here is the story of one landholder's journey to implement fire on his property to reduce the incidence of weeds (many of which do not like being burnt) and to renew the ecosystems which require fire to propagate and thrive.

Tony lives on a 16 hectare Land for Wildlife property in the southern end of the City of Moreton Bay, surrounded by mountains which are dominated by open eucalypt forest. He had always had an interest in using fire as a management tool to control weeds and improve the health of the vegetation. In July 2023, he attended a Property Fire Management Workshop hosted by City of Moreton Bay, with the Queensland Fire and Biodiversity Consortium, Healthy Land & Water and Queensland Fire and Emergency Services. The workshop covered fire management guidelines, Regional Ecosystems, burn preparation, implementation and fire permits. After the workshop Tony felt confident in his knowledge to implement his own planned burn at the end of the 2023 fire season.

Tony decided to burn a gully on the western side of his house. This was an ideal location for someone to implement their first burn. The gully has a medium gradient with a dam located at the bottom. The entire burn site was 1 hectare, with easy access and fire trails on three sides. In addition, the burn would offer some asset protection by reducing the fuel loads on the western side of the house.

Prior to ignition, it is important to minimise the material that can combust. This helps to create an environment for a 'cool' fire which is more easily controlled. As part of burn preparations on Tony's place, highly combustible plants like lantana and other weeds were removed from the shrub layer. Tony also created mineral earth barriers and access lines - clearing so that only bare earth remains - where fire will effectively die out. These were created around the base of habitat trees and logs, and were done by scraping vegetation and leaf litter back so that the soil was exposed. This reduces the opportunity of fire to track up or inside the tree and into the crown, thus protecting habitat and the wildlife they sustain.

Through the middle of the burn area, Tony created mineral earth access lines for movement, approximately a metre wide. This acted as both a fire break and a safety measure. He engaged with the local Fire Warden for property specific information and was granted a fire permit to burn. He also consulted with council's Fire Management Officer to go over his plan and make sure he had everything in place prior to ignition.

As part of final preparations, it was decided that a fire trailer would be an invaluable resource for this fire and future burns. Tony even bought a second-hand trailer with a water pump and

a 1 tonne water cube, just to be on the safe side! With a little maintenance and replacement of a fire hose, the trailer was ready to go when the ideal weather conditions occurred to implement the first burn.

A fire permit stipulates that the burn can only go ahead if environmental specifications satisfy certain conditions. Soil moisture scores need to be at a specified level, temperatures need to be cool and wind needs to be at a minimum. Soil moisture is an integral part of assessing the site pre-burn. Soil moisture helps maintain a low to moderate fire intensity and provides protection to the root systems of native ground covers. Without soil moisture, native ground covers can die, and this can lead to weed succession after the fire.

With the assistance of family members and a neighbour, the burn was carried out over four days. They lit up in the cool of the morning, allowing the fire to burn itself out before starting on the next section. They blacked out the eastern side of the burn with water and used rakes to turn over logs. During the night, Tony and his wife checked to ensure there were no visible embers. They noted that stringybark eucalypts would light up fast, so were vigilant to always keep an eye on them. They also watched with interest a progression of spiders, insects and other invertebrates making an escape as the fire moved towards them. As the burn progressed, the team became more confident about how the vegetation responded to fire, so they lit up larger areas.

A year later, native grasses have recovered, there are logs and leaf litter for wildlife to use and small saplings have emerged. With the success of this first burn - due to good planning, consultation with experienced practitioners and burn preparation - Tony plans to use fire more as a land management method in the future on other areas of the property. To sum it up in Tony's own words, "It was as alarming as it was cathartic and educational. Fire both destroys and renews."

**Article by Nicole Byrne
Land for Wildlife Officer
City of Moreton Bay**



Tony (left) and his neighbour tending to the burn, October 2023.

DURING BURN, OCT 2023



The fire was ignited along a ridge line and was allowed to burn down towards the gully.

ONE YEAR LATER, OCT 2024



Native grasses and herbs have since re-sprouted and germinated since the fire. Lots of leaf litter and fallen timber remain on the ground, protecting the soil from erosion.



Arwyn (top photo) plants a tree in memory of long-term Somerset Land for Wildlife member, John (pictured above).

"Like trees, humans function better in a supportive community."

Growing Community

We purchased our 40 acre property near Esk in early 2021, and after two years of slogging it out alone, I decided to see if other Land for Wildlife members in the Somerset region would like to meet together to share knowledge, resources and inspiration. As a psychologist, I know the power of community, of having your work witnessed and feeling connected with like-minded people. An email went out through our local Land for Wildlife Officer, Darren, and a group of about 17 people met for the first time in May 2023 on our property.

Since then, we have had six more gatherings, mostly property "Walk and Talks" but also a lantana working bee, with a core group of around 10-12 people.

Some highlights have been learning about Voluntary Conservation Agreements and a successful Cats-claw Creeper eradication program. We have seen what 30+ years of work can achieve on long-time members properties and we all value sharing lunches together. Members have shared some challenges they face, particularly with accessing funding and limited resources and financial support in a region the size of Somerset.

Several members were devastated by the 2019 bushfires and most live with the constant threat of bushfires. We have since opened the group to anyone in the Somerset region who has similar values for conservation of native flora and fauna and have called the group "Somerset Land for Wildlife and Friends".

It was through this group that I met John Edwards, a long-term resident of Biarra and a Land for Wildlife member. He was a warm, friendly man with a goofy sense of humour, known for his tie-died shirts, generous nature and love of the bush. John had attended every gathering, and at our last meeting he shared how much our visit to his property meant to him. It was the first time he had been able to share his achievement of nurturing trees he planted from infancy to maturity with people who understood the significance of this effort.

Tragically, John passed away suddenly in December, not long after our last gathering for 2024. When we met recently in February, we honoured him with a tree planting on our property, and thanks to the generosity of our Land for Wildlife Officer, provided a tree for each member who wished to plant one for John on their own properties.

Although I only knew John for a short time, it has shown me that sharing these times together has grown more than our passion and knowledge, we have also formed meaningful relationships that can make a lasting impact on our lives. Like trees, humans function better in a supportive community. Growing the bush is important, but growing community while doing this is even more important.

If any readers in the Somerset region would like to join us, just contact Darren McPherson at Somerset Regional Council and he can pass on our details.

Article by Arwyn Warner
Land for Wildlife member
Redbank Creek, Somerset



A gathering of Somerset Land for Wildlife and Friends group.



CREATING A *Conservation Legacy*

Imagine as you age, there are a small group of people who care for you and the land that you love, in perpetuity.

Let's explore the likely scenario when you are unable to care for your land or when you are no longer here. Cheery subject. I have three children and only one would be interested in living on our property. There is a lot of things to align, but let's assume he does want to live here once I age or die. In a normal scenario, he would have to buy out his two other siblings. That means he would have to come up with \$1.4m. That's not happening.

And so, the property goes on the market. And the most likely outcome is that it's purchased by the grazier next-door or a developer. Neither of which I want.

We bought our 3.5 acre Sunshine Coast hinterland property for around \$650,000 in 2019. A developer offered us \$2.1 million just five years later. Why didn't we just cut and run? Well, we developer-proofed it. How? We started a non-profit, loaned our money to it and then the non-profit, Eco Villages Australia (EVA), bought the land. This land is too precious to be sold to the highest bidder for development for massive profits. I'm guessing your place is too.

By putting our land into a non-profit, we have effectively taken this land off the speculative market forever, thereby creating a conservation legacy. This land will always be here for native wildlife and flora (and humans).

Most conservation logic asks humans to step off the land in order for the land to heal. This is one of the reasons I love the Land for Wildlife program as it assumes that humans are needed for a biodiverse future. First Nations people understood this well - humans are an integral part of a healthy landscape. We also accept this.

Many of you may be struggling to look after your land and find it hard to coax younger people to help care for country. People, understandably, are reluctant to help someone improve another person's property. Our model, which we call 'collective stewardship', means that no-one owns the land and we all work for something that is much bigger than ourselves. We make an income off the land, usually by rent, and over time, philanthropists or those who loaned to start the project, are paid back.

If this model appeals to you or you are curious, then have a look at www.ecovillages.au and contact us from there. All sorts of scenarios could occur, you could sell the land to Eco Villages Australia, or we could help you start another non-profit, or you could gift it, or become one of the philanthropists and live there while the community looks after you and the land. I created a conservation legacy that will outlast me. Maybe you could too.

Article and photos by Andrew McLean
Land for Wildlife member, Sunshine Coast
Co-founder of Eco Villages Australia



Perceiving the Natural World

AS A CULTURAL LANDSCAPE

Electic, brilliant and beautifully written, *Thirteen Ways to Smell a Tree* is an exploratory journey of evocative imagery and aromatic memory of how our lives are intertwined with the wonder of trees. Every chapter summons a new aroma: the smell of earthy leaf litter, comforting woodsmoke, invigorating pine, spicy juniper berry and zesty lime in a gin and tonic. As you read, you travel the life story of the trees, often along the global trade routes that have carried them around the world, reminding us of how trees feed and sustain us.

In this delightful collection of essays, David Hassell imparts everyday practices that invites the reader to breathe in the natural world; to sense more profoundly our interconnected and vital relationship with trees. Taking David's practices to heart, I decided to learn the olfactory language of trees myself.

I remember making a cuppa while reading the book, and in that contemplative moment I took the time to inhale the rich aroma of ground coffee. This triggered a lively imagining of coffee shrubs growing in the mountain tops of Colombia, travelling around the world, and once transmogrified in a brew, flowing into my cup. I felt a sense of wonder and gratitude for the coffee bean, its long journey and the pleasure of aroma and flavour.

I took my coffee outside to stroll around the garden, lingering here and there, to crush a leaf and bring it to my nose. I inhaled Lilly Pilly (*Acmena* sp.) leaf - citrusy, tingly and sweet. Next, Rainforest Senna (*Senna acclinis*), fresh and crisp like green peas. I followed this up with Quinine Bush (*Petalostigma pubescens*) leaf, this one I struggled to describe. Oddly, it reminded me of cow manure on old gumboots, a memory from 20 years ago. Like a fox, I tilted my head upward to scent the warm humid air. I picked up distant notes of honey-sweet Melaleuca and the spicy Vietnamese cooking from next door. I leaned down and scuffed the leaf litter and was enveloped in rich organics and peppery decay.

My exploratory stroll was a powerful sensory experience. It opened my eyes (and nose) to the intricate web of relationships that coalesced around me. It aroused my curiosity and wonder. It asked of me to expand my mind to new ways of perceiving, particularly when my vocabulary and cultural frames of reference reached their limits to describe my experiences.

I noticed each tree had made room for others in the garden, bending round, striving upward; these interactions arising from competition tempered by cooperation; a sharing of space, nutrients and sunlight. How did the trees sense, communicate and adapt to each other? I envisioned the mycorrhizal pathways underground, the chemical signalling from leaves and pollen, and the interplay of temperature and shade. I felt how cooling and peaceful it was under the canopy and gave a nod to the trees in acknowledgement and thanks.

Golden Orb and Dome-web spiders were plentiful. I made a mental note that there will be fewer spiders next year as prey and predator populations rise and fall, changing with the seasons and weather patterns, an equilibrium sustained in concert.

Native seedlings had self-germinated, creating an intergenerational family dimension to the garden. I wondered if some had beneficial properties such as a strong tap root to break up compacted soil, nectar to feed butterfly and bird, and fibrous roots to hold the soil in place. Others, I foresaw would dominate

the space to the detriment of everyone else. There should be room for all I thought, where every living thing is working together to co-create stabilising harmonising patterns and flows. Lessons to be learnt here.

At this point, I realised I was in conversation with the garden, the trees, the beetles and the earth. My whole self was engaged in the experience, body, heart, mind and spirit. I was at ease and at peace; I felt grounded and content.

I reflected on the values and state of mind that helped me to observe and converse with the garden. What was the garden teaching me? Respect, humility, curiosity, reciprocity, cooperation, collaboration, gratitude. More words rose to the surface of my meandering thoughts: mindfulness, deep listening, responsibility, stewardship, generosity, kindness.

I thought about the phrase 'my garden'. It didn't feel right. It implied ownership, separation, exclusion, control over. The garden, to me, was a conversation, an open fenceless flow of wildlife, trees and relationships.

I asked of the trees, what do you need to grow and thrive? What relationships with plant, animal, fungi, soil and human do you need to be healthy and resilient? How might our interactions be one of reciprocity and mutual benefit? What can I learn and be guided by in my conversations with you?

In this liminal space between the trees and I, a shift in perception, thought and action, I pondered how the entire ecosystem, myself a part of it, strove towards vitality and life; of living in health, wholeness, resilience, stability, adaptiveness, of intergenerational and interspecies family and community, of ever-increasing complexity and interconnectedness.

There were many worthwhile lessons from my aromatic garden foray, a simple exercise that brought me back to contemplating the values, ethics and traditions of family and community that have shaped my way of being. My experience ran counter to the mainstream Eurocentric view of nature being "red in tooth and claw"; of the lingering colonial belief that 'wild' places are full of danger; an uncivilised place that must be dominated and subdued. It challenged the view that I should wage war on 'weeds' and 'pests'; to be aggressive and domineering in my approach.

It opened insight into the natural world as a cultural landscape that I am in relationship with, one in which my values and worldview intimately overlay.

This book is a wonderful reminder to slow down and breathe deep, to be more perceiving, to be engaged from the heart, to take joy and nourishment from our relationship with trees. It may also inspire you, like me, to ask questions of yourself, and the cultural values and practices that you bring to your relationship with trees, weeds and the natural world.

**Article by Amanda Maggs
Land for Wildlife Officer
Brisbane City Council**



The Macadamia: Australia's Gift to the World

By Ian McConachie

If you are fortunate enough to have grown up eating macadamias from your own tree, then you may be a little bemused that your humble childhood treat has attained 'World Gift' status as asserted by Ian McConachie in his new book.

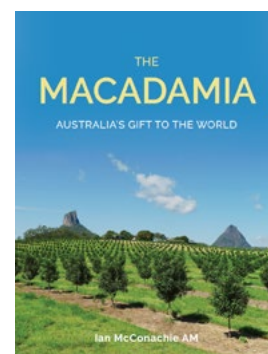
There is so much still to learn about macadamias. Many people have never seen a macadamia nut, never mind eaten one. Many Australians do not know that macadamias come from an Australian tree or that there are actually four species of macadamia, all threatened with extinction.

Ian McConachie takes a systematic approach to removing the mystique and myth from the origins of the macadamia. The book details the evolution and habitat of macadamias – yes, they evolved here in SEQ and northern NSW. He considers the relationship of Australia's Indigenous peoples with macadamias, and he traces the experiences of early European botanists and pioneering farmers in the nineteenth century.

Ian outlines the establishment of a macadamia industry and how new machines had to be invented to crack them. He describes how macadamias have spread to over 40 countries and offers ideas and insights for the growing macadamia industry. Importantly, and of relevance to many Land for Wildlife members who have wild macadamias growing on their properties, this book discusses the need to protect wild macadamias and their habitats. Throughout, Ian's knowledge, research and lived experiences are on full display with an easy storytelling style driven by enthusiasm and a sense of humour.

The great value in this book is the assemblage of knowledge, now recorded for posterity, by the only man capable of doing so. Only Ian has keenly researched all things historical about macadamias from old documents to Aboriginal lore. Ian has been a very active pioneer in the industry's development and a driving force behind conservation of wild macadamias and their habitats.

Wild macadamias needed a conservation champion. The macadamia industry needed pioneers. We who love and eat macadamias needed someone to tell this great story. There is only one man with the knowledge and passion to do all this and this is his book - Ian's gift to the macadamia world.



Australian Scholarly Publishing 2024 | Paperback
324 pages | \$49
Available online and at select bookstores.
Proceeds support wild macadamia conservation.

Review by Ken Dorey, Big Scrub Landcare and Macadamia Conservation Trust, restorer of rainforests and macadamia farmer.

Wildlife Conservation in Farm Landscapes

By David Lindenmayer, Damian Michael, Mason Crane, Sachiko Okada, Daniel Florance, Philip Barton and Karen Ikin.

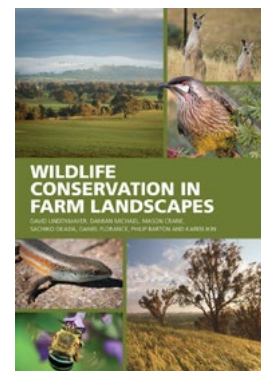
This book may be nearly ten years old, but it is still a relevant cornerstone publication on how to manage land for conservation. What I liked the most about *Wildlife Conservation in Farm Landscapes* was how simple and easy it was to read. Whether I had five minutes or a few hours, I could pick up the book and within a few pages discover at least one piece of information that was practical and inspirational.

A research team from The Australian National University, with 17 years studying wildlife in Australian agricultural landscapes, published this book to communicate new and emerging scientific information to a broad audience about best practice ways to integrate conservation and agriculture.

Six of the eight chapters present research findings on groups of organisms, such as invertebrates or birds, with the remaining chapters covering ecologically sustainable farming practices in general. Each chapter provides information on how wildlife responds to changes in vegetation and restoration techniques. This is where I found inspiration and hope. For example, many bird species of conservation concern are often recorded in new plantings and regrowth areas, which shows it is never too late to create habitat.

Within each chapter there are beautiful photographs with descriptions that provide standalone information associated with a particular species or habitat. One such photo of a Swamp Wallaby (p. 82) describes how they contribute to the health of the vegetation by eating underground fungi, or truffles, found in the soil. Swamp Wallabies play a pivotal role in dispersing truffle spores throughout forests. These truffles create symbiotic relationships with native plants and provide them with nutrients and water whilst receiving carbohydrates from the plants. Thus, Swamp Wallabies are helping to maintain the diversity and health of plant and fungal communities within ecosystems.

Throughout the book are blue information boxes providing scientific detail or further information on species and key points. The reader can happily flip through the book and read about interesting topics here and there. While the book is aimed at conservation in the farm landscape, most of the restoration techniques are transferable to small sized properties, and hence relevant to most Land for Wildlife property owners.



CSIRO Publishing 2016
Paperback | 232 pages
| \$49.95
Available from CSIRO Publishing and other retailers

Review by Nicole Byrne



Snake-like Eels

IN OUR WATERWAYS AND DAMS

Although snake-like in appearance, freshwater eels are amazing ray-finned fish that complete part of their life cycle in our waterways, dams and wetlands. The Short-finned Eel (*Anguilla australis*) and Long-finned Eel (*Anguilla reinhardtii*) are found in south-east Queensland (SEQ) and are listed internationally as threatened.

In SEQ, the most commonly encountered is the Long-finned Eel, which can reach an impressive 2.5 metres in length and 20 kgs in weight, but most reports are of individuals about one metre long. Both eel species prefer still waters such as lakes,

dams and swamps where they feed on all manner of aquatic animals including fish, insects, yabbies, shrimps, molluscs, frogs, small waterbirds and even the odd Rakali.

Eels are remarkably hardy and can tolerate high water temperatures, low oxygen concentrations, endure long periods without food, and bury themselves in mud or sand and enter an energy-saving torpor when the water temperature drops below 10°C. They are one of the few Australian freshwater fish to have coped well with the introduction of non-native fish species.

The lifecycle of eels is like something out of a science fiction movie! Eels reach puberty when they are about 30 cm in length and it is only then that their sex, which depends on population density, is determined. In an area with many eels, they tend to become males, whereas further upstream, where there are fewer eels, they are more likely to become female. Once in puberty, they remain in the same area until they reach maturity at about 14-25 years for males and 18-35 years for females. Once fully mature, the eels start changing their shape. Their digestive system shrinks and they stop eating. Their eyes get bigger and their heads pointier, possibly an adaptation for long distance swimming.

The mature adults migrate from their freshwater home down to the sea in order to spawn. Incredibly, they navigate for 2500 km (over 4000 km for the ones coming from Tasmania) to the western side of New Caledonia and Vanuatu. Their journey takes 4-6 months, swimming against the East Australian Current without eating any food! Recent studies have found that they swim at a depth of about 80-100 metres at night and dive to depths of 900-1000 metres during the day and on full moon nights. One theory speculates they do this to avoid predation by mainly visual hunters like sharks and other predatory fish.

When they reach their destination, spawning takes place deep in the ocean,

on the western side of the New Caledonian submarine ridge at a depth of about 350m. Mature females have been found to contain more than 3 million eggs.

The eel larvae, known as leptocephali because of their leaf like flat shape, are carried south by the East Australian Current from their spawning grounds until they reach Australia's continental shelf. At around this time they metamorphose into the normal tubular eel shape although devoid of any pigment and so are known as glass eels.

When the glass eels begin to migrate into freshwater they may be anywhere from one to three years old. While still in the estuarine waters the glass eels quickly develop pigment (called elvers) and adjust to freshwater. These migrations are known as 'eel fares' from which the term 'elver' is derived. The upstream migration continues well into the upper reaches of river systems. Many elvers, glass eels and adults can overcome large obstructions such as dams and waterfalls by travelling overland in damp conditions with a motion much like snakes.

So, next time you see one of these snake-like fish in your dam or creek, spare a thought for the amazing journey it took for them to reach this spot, and even more, the amazing journey it will take for them to breed.


**Article by Stefan Hattingh
Land for Wildlife Officer
City of Moreton Bay**

Reference and Further Reading

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The Long-finned Eel is usually speckled in appearance and has obvious rounded fins near the front of its body.

Photos by Greg Tasney.

Goodbye Lantana

My story began about nine years ago when we purchased our 47 acre tree change block in Coochin, a short distance from Boonah. From the outset I could see that the predominant portion of the wooded part of the land (approx. 35 acres) was choked by lantana. The terrain of the property (deep wide gullies and many old trees) had provided the lantana the perfect conditions to flourish and spread. It had rendered over 70% of this area impenetrable. I declared it enemy number one. Whilst I didn't have a true vision because of the sheer scale of the invasion, I decided that every weekend and during school holidays, I would devote myself to three hours of lantana removal.

So began a slow and steady conquest over the next 5-6 years. My method, to say the least, was laborious. I upgraded my reciprocating saw and battery size over the first year to more efficiently employ the stump cut method using glyphosate herbicide.

The gullies were the greatest challenge as the lantana had reached metres in height and had spread just as wide. It was climbing trees and smothering natural habitat in its path. I spent many hours beneath lantana 'forests' sawing away and then cutting these massive plants into manageable sized pieces. I pulled them up and away from the site so that I could open up the earth to what nature had intended – light, water and air. It was these such moments that I have to admit felt the most satisfying – to see the light touch where it had not for a long, long time.

And so it was, nearly six years of persistent

slog. I had made good progress and could now see the fruits of my labour. Native grasses and groundcovers were now taking hold, as well as a multitude of native trees. It was now that I entered a new phase of the conquest – the 'sweeps'. I systemically went back section-by-section to spend 1-2 hours pulling lantana or in some cases, cutting larger ones, which had escaped the previous cull.

As I was spending less time on the lantana, I turned my attention to other invaders such as Tree Pear, Chinese Elm, thistle, Tipuana, Balloon Vine and Jacarandas. They were now top of my hit list.

In 2025 I am rewarded with what lies before me each and every day – the land is now as natural as I'm sure it once was many decades ago.

In my role as secretary of the Boonah & District Landcare, I recently met Greg Tasney from the Scenic Rim Regional Council Land for Wildlife team, at one of our Cane Toad busting events this year. Greg knew of my lantana project and said he was keen to come for a visit. He visited the property some weeks later and was very impressed with what he saw and enjoyed hearing of the conquest I had embarked on to bring about such a transformation. Greg's knowledge and expertise was certainly music to my ears, as he listed so many native plant species that he observed on our two hour walk.

My advice fellow land for wild lifers: start now!!

**Article by Jo-Ann Morris
Land for Wildlife member
Coochin, Scenic Rim**



All the areas in these photos were under Lantana when Jo-Ann bought this block about nine years ago. Her outstretched arms indicate how high the Lantana was back then. She has manually controlled nearly all the Lantana on her property, turning the country back into an open grassy forest with some emerging *Allocasuarina torulosa* trees.

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Look-a-Like WEED VS NATIVE PLANTS

A common challenge in bushland restoration is distinguishing between White Cedar (*Melia azedarach*) and Golden Rain Tree (*Koelreuteria elegans* subsp. *formosana*). While they may appear similar, White Cedar is a valuable native species whereas Golden Rain Tree is an invasive environmental weed.

White Cedar is a hardy, fast-growing tree that thrives in various ecosystems, playing a vital role in bush regeneration by shading out weeds. Its fruit is a crucial food source for frugivorous birds,

flying foxes and possums, while its flowers attract pollinators. Golden Rain Tree, an introduced species, has been widely planted in SEQ and is now prolifically self-seeding. It establishes dense thickets in bushland, reducing biodiversity and altering natural ecosystems.

The best way to tell the difference is by looking at the leaflet arrangement - whether they are opposite or alternate.

Article by Greg Tasney

NATIVE WHITE CEDAR



Opposite leaflets - they line up on either side of the leaf stalk.



Fleshy yellow-to-green fruit.



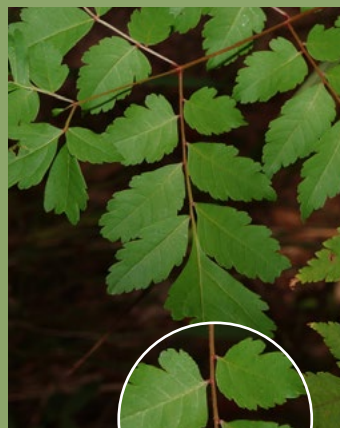
White and lilac flower clusters.



INTRODUCED GOLDEN RAIN TREE



Alternate leaflets - they do not line up on either side of the leaf stalk.



Papery red-to-brown fruit. Photo by Auradyme, iNaturalist.



Yellow flower clusters. Photo by zoeaa, iNaturalist.

