



LAND FOR WILDLIFE

SOUTH EAST QUEENSLAND

MAY 2020 VOL. 14 NO. 2



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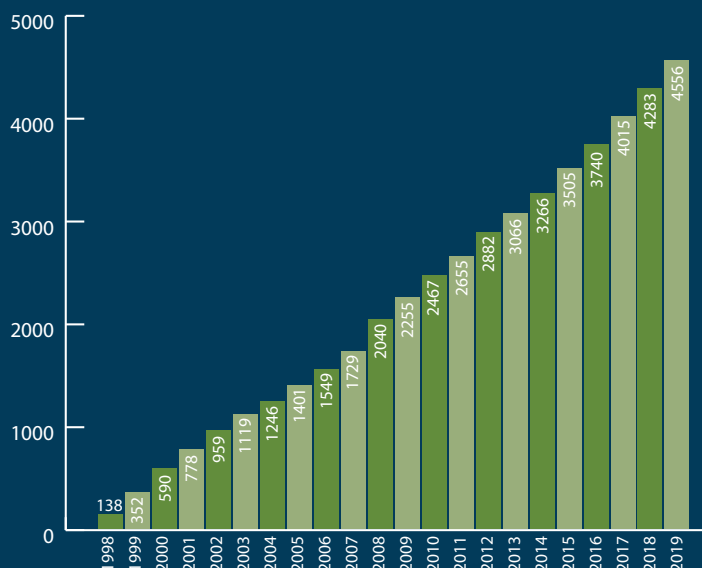
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Land for Wildlife South East Queensland Team, November 2019

ANNUAL GROWTH

Cumulative chart showing new Land for Wildlife properties (Registered and Working Towards Registration) that join annually and are still members of the program as of April 2020. Over the past decade this is an average growth rate of 232 properties per year.



*Please note that these figures do not include Fraser Coast or Gympie Land for Wildlife data.

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

Land for Wildlife South East Queensland is a quarterly publication published by 13 Local Governments in south-east Queensland and distributed free of charge to their Land for Wildlife members.

Opinions expressed by contributors to Land for Wildlife South East Queensland are not necessarily those of the Land for Wildlife program nor any of the supporting agencies.

Printed on EcoStar Silk 100% post-consumer recycled paper, FSC certified, chlorine-free process and made carbon neutral. Printed by Greenridge Press, Toowoomba using vegetable based inks.

ISSN 1835-3851 Print run - 4415 copies

Front Cover: A Greater Glider emerging from its hollow in a Brisbane City Council reserve. Photo by Josh Bowell.

Front Cover Inset Photos (L-R): A cool ecological burn, photo by Nick Clancy. A Picabeen Palm grove, photo by Kylie Gordon.



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Welcome TO THE MAY 2020 ISSUE

It's been a tough few months for many Land for Wildlife members with drought, fire, flood and now a pandemic. These events are changing our world.

From all of us here at Land for Wildlife, we want our members to be safe, healthy and to feel connected. We are changing how we do business to ensure that the LfW program emerges out of this stronger. We are adopting new technologies and hopefully these measures will benefit the program and our members well into the future. In the interim, LfW workshops and events have been postponed and will recommence when gathering restrictions are lifted.

Since early April, all LfW Officers are working from home. Depending on their individual circumstances, some LfW Officers are able to visit LfW properties with physical distancing and other safety measures in place. Visits without personal interaction are also possible if this will help you continue your property management or bushland restoration journey. Video conferencing may be available and could help with plant identification for example. Feel free to contact your LfW Officer to see how we

can assist you and your conservation work on your property.

For many of us, forced isolation and social distancing measures have turned our attention to home projects and the bushland on our properties. The autumn weather has also produced ideal conditions to control weeds. With an empty diary, I have slowed down and have enjoyed getting on top of the weeds, photographing the delightful migrating butterflies and watching the lizards soak up the autumn sun from my home office window.

Please reach out to the LfW team if you need advice or support with your bushland restoration, or just want to share some good news from nature.

Recent events have shown me that if humanity wants to work together, we can. Collectively, we can change our day-to-day lives, shift economies and strive for global accord. Yes, some of us stocked up on loo paper, but most of us tried to keep our family, friends and communities safe. I believe that when humanity wants to, collectively we will act at an unprecedented global scale to keep our environment safe. As evidenced by articles

in this newsletter, many LfW members are already doing their part and are leading by example.

Please lean on the LfW program during this time if you need some support or a pick-me-up. Follow our Facebook page, send me a story or call your LfW Officer. Tell us about the weeds you have removed or the animals that are using your nest boxes. Take a proud photo of yourself next to a tree you have planted and share it with us. I am always happy to receive photos from LfW properties, whether that be the morning mist settling in the valleys or dew hanging off spiderwebs. It would be great to hear from you. Thanks for being a part of our LfW community and I hope you enjoy this read.

Deborah Metters
Land for Wildlife Regional Coordinator

We welcome all contributions.

Please send them to:

The Editor

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Climate & Weather REGIONAL OUTLOOK

April-June 2020



Daytime temperature. Likely to be warmer than average.

Night temperature. Very likely to be warmer than average.



Rainfall. Wetter than average conditions are likely.



Root-zone soil moisture. The level of soil moisture may have increased due to recent rainfall but long-term rainfall deficiencies remain in some areas.



Streamflow. Several months of above average rainfall may be required to increase streamflows and replenish water storages.

Influences

- Indian Ocean Dipole (IOD) – neutral
- Southern Annual Mode (SAM) – neutral.
- El Nino-Southern Oscillation (ENSO) – neutral.
- With all the above climate drivers being neutral, our climate for this period is being influenced by the very much above average sea surface temperatures in the Indian Ocean, increasing the chance of wetter than average conditions in SEQ.

Sources

www.bom.gov.au/climate/ahead/

www.bom.gov.au/climate/climate-guides/ (south east Queensland)

Weeds to Watch April-June 2020

Broad-leaf Pepper Trees form clusters of red fruit around this time of year. The fruit are readily eaten and dispersed by birds, so try to control this woody weed before the fruit ripen and set seed.



Glycine flowers and sets seed in autumn. Its seed pods are usually covered with rusty-coloured hairs. Try to control it before it disperses its seeds.



Balloon Vine will generally be showing its large, balloon-like papery seed capsules at this time of year. Try to control it before it sets seed.



HANDING OVER CUSTODIANSHIP *of a Land for Wildlife property*

AFTER 2019 - Planted trees now forming
a self-sustaining forest

In my job as a Land for Wildlife Officer I have been privileged to meet many inspirational landowners who have devoted a large part of their lives nurturing their properties. As land custodians, they have transformed their properties into wildlife havens, and in doing so provide benefits for nature and their community. Occasionally I also witness what happens when the landowner has to sell their property, and the new owners don't share the same values and respect for nature.

When Noel Tolson, his brother David and sister-in-law Mary purchased their West Cooroy property in 1985, it was a very run-down block dominated by weeds including Groundsel, Lantana and Camphor Laurel. Over the next 30 years they carefully transformed their property into a biodiverse landscape by actively replanting with native species and assisting natural regeneration of bushland in other areas. In 2000, the property was registered with the Land for Wildlife program.

In 2018, Noel was faced with the decision to sell his property. Noel was hoping the buyer would want the property for the forest and not undo 30 or so years of dedication and hard work. Enter Jacob Broomhall who was looking for a property that was mostly forest yet not too large, and one that was hopefully abundant in wildlife. Jacob loved the property and purchased it.

In Jacob's words, "Having now formed a good friendship with Noel, it's a joy to have him come around to share with me the history and knowledge he has of the property, rather than have it cease with the handover of real estate ownership. It only seems right to continue to let him visit the forest he and nature created together. It's now legally mine but I'll always call it his."

Dave Burrows
Land for Wildlife Officer
Noosa Council



BEFORE 1991 - Planted trees (on the right of driveway)
were starting to develop



Noel and Jacob. Two generations as custodians of a
Land for Wildlife property in West Cooroy.

Stefan working with his detection dog Emma to search for Greater Glider scent.



Photo by Josh Bowell.

USING DOGS & SCATS TO FIND Greater Gliders

For the past seven years I have been slightly obsessed searching for Greater Gliders on Land for Wildlife properties throughout South East Queensland. Greater Gliders rarely make noises and they forage high in the canopy often in hard to traverse areas. Their cryptic nature makes it very difficult to see them or to even know if they are present.

A possible solution to better detect Greater Gliders is using a detection dog to transverse an area in the daytime and then spotlight the indicated area or tree the same night. This will reduce search hours and better pin-point areas where Greater Glider populations exist.

Seeing that detection dogs are all the rage, I asked around to see if anyone would like to train their dog to sniff out Greater Gliders on Brisbane Land for Wildlife properties. Stefan Hattingh put his hand up and said his dog Emma would be great at it. Emma was trained on fox scent and Stefan thought it might be possible to train Emma on a second scent.

A key ingredient in training a detection dog is having access to fresh scats of the target animal. Finding wild Greater Glider scat is a near impossible task as it is so small. Currumbin Wildlife Sanctuary was able to help by sending parcels of sealed scat while making sure the collection process had as little human contact as possible to reduce scent contamination.

We went for a test run in a Brisbane City Council reserve where there is a known population of Greater Gliders. On her first night out, Emma indicated to wild Greater Glider scent by putting both of her front feet up on the base of a stag tree. That night we waited by the stag tree and were delighted when a Greater Glider appeared from the hollow. We were all on a big high and I am eager to work with Emma and Land for Wildlife members in the future to help detect and conserve these amazing threatened animals.



Article and uncredited photos by Catherine Madden
Land for Wildlife Officer
Brisbane City Council

A wild Greater Glider emerging from its daytime hollow in a large dead stag tree. Its presence in this tree was detected by Emma the detection dog. A red light was initially used as it does not harm the eyes of nocturnal mammals. Greater Gliders are Australia's largest glider and feed solely on eucalypt leaves high in the canopy at night.



Shown here are two captive Greater Gliders at Currumbin Wildlife Hospital. One is almost white in colour while the other is dark grey-brown. Greater Gliders often have wide variation in colour.



Greater Glider scat is tiny (much smaller than possum scat) and difficult to find in the wild. These scats came from the captive Greater Gliders at Currumbin Wildlife Hospital and were used by Stefan to train Emma.

Photos from our property: Eastern Sedgefrog, Wompoo Fruit-dove, Red Arrow dragonfly, Variegated Fairy-wren, and Swamp Wallaby.

THE VALUES OF *a small property*



A Striated Pardalote clocks on while the valley is still in darkness but before long the Eastern Yellow Robin and King Quail welcome the growing light. Just as our Ninderry property is relatively small, each of these tiny creatures play their own part in the larger ecosystem. We became interested in Land for Wildlife due to dear friends who tirelessly and passionately protect their 40 acre Land for Wildlife property at Woodford and we knew we had to follow.

When we started out 15 years ago as the 200th Land for Wildlife property with the then Maroochy Shire, we had enormous ambitions but a greater uncertainty as to how a mere three acres of wet sclerophyll and dry rainforest could play an important role in the environment. Our property is part of a core habitat area around Mt Ninderry with linkages to the north towards Eumundi and Verrierdale and to the west towards the Blackall Range.

We worked diligently at removing major weed species such as Cocos Palms, Camphor Laurel, Chinese Celtis, Lantana, Broad-leaf Privet, Morning Glory, Fishbone Fern, Arrowhead Vine and many more. The dam was choked beneath Salvinia. Unfortunately our lack of sunlight inhibited the Salvinia Weevil which was introduced by Maroochy Waterwatch as a biocontrol to target this water weed. However after a few more seasons of relentless harvesting with rakes from a very dodgy boat we finally won. We have been Salvinia free for five years now! Our dam is now healthy and vibrant, the Azure Kingfishers call it home and Nankeen Night-herons regularly visit.

Since controlling weed species and systematically planting endemics, the natural regeneration never ceases to amaze us. Weed maintenance is relatively manageable and planting sites accessible. Monitoring our nest boxes is not too difficult on a smaller property. With thousands of local native plants established and an abundance of watering sites, we are encouraged by the changes and new discoveries. We've identified 110 species of birds, many

frogs and numerous families of Sugar Gliders, Lone Echidnas, Swamp Wallabies raising their joeys and plenty of Spiny Crayfish conducting their nightly terrestrial excavations.

We believe we have spotted the Long-nosed Potoroo so of course a wildlife camera was essential. This has given insight into the world of the nocturnals whilst providing evidence of foxes and cats on the prowl. We've experienced the barrier effect of lomandras (*Lomandra longifolia* and *L. hystrix*) in obstructing the path of the Cane Toad to the dam and the value of this plant in erosion control. We learnt how to be more successful in planting Richmond Birdwing Vine (*Pararistolochia praevenosa*) and have honed our skills in propagating other native plants.

As with other Land for Wildlife members we've had many triumphs and downfalls like sadly witnessing the spread of Myrtle Rust through our stand of Scrub Turpentine (*Rhodamnia rubescens*) and almost the entire dieback of a patch of Native Guava (*Rhodomyrtus psidioides*). Fortunately the Scrub Turpentine seems to be showing a comeback. There is always a positive! We're hoping new growth in the Native Guava will persist.

Thanks to ongoing support from Land for Wildlife and its Officers, we have become more confident in our conservation efforts. Both the education and the seedling incentives from Land for Wildlife have been invaluable, as are our nest boxes supplied by Hollow Log Homes. Our fortune of having two neighbouring properties partner us in our endeavours has given hope that in leading by example and educating tactfully, others will follow. We have recently joined the Mt Ninderry Bushcare Group and are heartened by the positivity whilst humbled that we still have a lifetime of learning ahead. We enjoy every effort we make on our small but important three acres and share a common love of protecting all in our custody.

Kevin and Kerry Marnane
Land for Wildlife members
Ninderry, Sunshine Coast

Everyone

NEEDS A FRIEND

REINVIGORATING LAND FOR WILDLIFE IN THE TOOWOOMBA REGION



Over many years, Land for Wildlife was delivered in the Toowoomba region by passionate officers from councils and the Queensland Murray Darling Committee. However, organisational restructuring and changes to funding resulted in cessation of the program. This has left the region's 200 or so registered property owners without the benefit of Land for Wildlife's sense of community and support for private land conservation. Property owners wanting to register with Land for Wildlife are unable to do so.

The Toowoomba region is a perfect match for Land for Wildlife. It includes national parks (eg Ravensbourne, Crows Nest and, the little known but extraordinary, The Palms), major lakes (Perseverance, Cressbrook and Cooby), state forests and other environmental landmarks (eg Table Top Mountain). The city has an expanding peri-urban fringe. The rural hamlets are increasingly surrounded by lifestyle blocks or used by organic farmers, artisan producers and eco-tourism operators.

However, like much of South East Queensland, the area is experiencing a range of natural resource management issues. Waterways and native flora and fauna are under pressure from weeds and feral animals, development, extended drought and temperature extremes. This summer's bushfires burnt out tens of thousands of hectares across private land and reserves. Private landowners are crying out for practical advice of the type available through Land for Wildlife.

Friends of Land for Wildlife Toowoomba Region was born out of a small group of registered property owners discussing how much they miss hardcopies of this newsletter and their local program. Widespread support for reinvigorating the program was established through engagement with SQ Landscapes, former Land for Wildlife Officers, other local environmental groups and professionals. The group launched in early 2019.

The group's first event was at a Land for Wildlife property in Perseverance

and included a demonstration by local arborist, 15-year-old Ben Sparshott. Ben demonstrated carving hollows in tree trunks with a small chainsaw. Research has shown these types of artificial hollows are very temperature stable and readily used by native animals. Artificial hollows are much needed in the Toowoomba area as it was heavily logged and natural hollows take up to 100 years to form.

Friends of Land for Wildlife Toowoomba Region initially aims to recreate a sense of community amongst registered property owners and lobby for reestablishment of an active program in the area allowing additional property owners to register. It then proposes to support the program through information sharing, field days, workshops and other events.

The group has started a contact list of owners of properties registered or wanting to register for Land for Wildlife and other supporters of the program in the Toowoomba Regional Council area. You can add your name to the list on the group's website. For updates on the group's activities, follow its Facebook page. If you would like to volunteer or have any queries, you can contact the group by email.

www.friendsoflwtoowoomba.org
www.facebook.com/friendsoflwtoowoomba/
friendsoflwtoowoomba@gmail.com

Margie Young and Peter Hayes
Secretary and Events Coordinator
Friends of Land for Wildlife Toowoomba



Arborist Ben Sparshott demonstrates how to carve out a hollow in a tree for wildlife.



Removing the face plate and starting to cut out a hollow.



Roughening the inside of the hollow so insectivorous bats can grip the surface.



20mm horizontal entrance for insectivorous bats.



50mm round entrance for small birds and small mammals.



25,000

AND STILL GOING STRONG



Nine nesting roosts for micro-bats have been built from plastic tubing (above) and affixed to trees near the creek.

KSHS students (left) planting trees along the creekbank for National Tree Day.

Volunteers and students at Kenmore State High School (KSHS) have logged up the very impressive total of over 25,000 native plants being planted on the 10ha of the school grounds over the last 20 years. The majority of these have been planted by students on the annual National Tree Day, which first commenced in 2002 when students from Kenmore South Primary School teamed up with senior students from the High School.

KSHS is unique in having a frontage not only to McKay Brook but also of over 1.1 kms to Moggill Creek which surrounds the school on three sides. This is a challenge when floods come and cover the sports fields, but it presents a wonderful opportunity for a suburban school.

Recent plantings have concentrated on species such as lomandras and dianellas because of their stabilising effect on creek bank erosion. Most plants have been provided free of charge by the major sponsor Toyota with many also provided by Brisbane City Council (BCC) and Moggill Creek Catchment Group (MCCG).

The students have been enthusiastically led by teacher Mike Walker supported by other teachers, ground staff such as Darren Graham and volunteers Damien Egan, Maria Miller and Jeff Willmer. Darren and Damien have been instrumental in planning and preparing the areas for planting. In recent years, students from KSHS's Visual Arts Department have filmed the activities as part of their assessments and for the school's record. Darren and Damien plus some teachers and students take responsibility for maintaining the plants, especially immediately after planting.

These activities have been undertaken in coordination with other revegetation activities overseen by the School's Parents' and Citizens' (P&C) Association Environment Sub-committee. Since 1999,

we have conducted monthly working bees for students, parents and other volunteers with their principal role being to maintain revegetated areas and extend those plantings by linking them together.

Other enthusiastic participants in our work have been students from our sister school, Engelsburg Gymnasium in Germany on their annual exchange since 2012. Around 25 students with their teachers have planted plants and learnt about our environment and been intrigued by our insects. Interestingly, in the last two years the Kenmore students on their exchange to Germany have been taken to a nearby forest to plant trees to counter the carbon emissions from their plane flights.

KSHS registered as a Land for Wildlife property in 1999 and have valued our membership of MCCG for almost as many years. The support from BCC through Cody Hochen and MCCG through Bryan Hacker, in particular, has been invaluable. In total, over 50 species of native plants have been utilised in our revegetation work.

We have teamed up with BCC to plant Richmond Birdwing Vines (*Pararistolochia praevenosa*) and have in excess of 50 surviving plants. There is a veteran Blue Gum (*Eucalyptus tereticornis*) below the Activities Centre that has a circumference of 4.6m and is estimated to be over 500 years old. It is now registered as a Significant Tree with the Veteran Tree Group Australia.

Over the years, eight nest boxes have been installed and occasional checks have revealed them to contain Squirrel Gliders, Brushtail and Ringtail Possums and Rainbow Lorikeet chicks. We also have three active native beehives.

During the second half of 2019 and probably accentuated by the dry conditions, there have been increased wildlife interactions at the school. A Whiptail Wallaby was spied on the oval

early one morning and we regularly see bandicoot diggings. A Platypus was recorded in Moggill Creek and Yellow-tailed Black Cockatoos were chewing one of our eucalypt trees to get grubs.

KSHS encourages its almost 2000 students to attend at least one working bee during their time at the school to learn what is being undertaken and gain an appreciation of the importance of this work not only to the school but to the environment in general.

Bruce Dymock
Convenor – Environment Sub-committee
Kenmore State High School P&C Assoc.



National Tree Day plantings at KSHS in 2002 (top) and the same site in 2019.

Upcycling WEEDS

Cat's Claw Creeper candle holder



Some of my earliest memories are of a fascination with plants. From picking beans in the veggie patch with my Pa to cutting roses and de-thorning the stems with my Nan.

At primary school, we would blow the fluffy seeds of the Dandelions to the wind and make a wish. The Capeweed flower petals could be picked out one at a time to work out if so-and-so loved me or loved-me-not! And even using the buttercup flower of the Oxalis to determine how much we liked butter, by holding it under our chins and judging the strength of the yellow reflection on our skin.

Of course, now I think of those plants as pasture weeds or pest species, but I'm always wondering if there is a practical use for those plants considered pests or unwanted.

A few months ago, my colleague Tina, who has a Land for Wildlife property, gave me a woven basket with a handle, made from a woody material. The basket was sturdy and looked hand-made. It's perfect for collecting veggies from the garden and storing lemons on the bench top. I asked her where she had got it from, assuming a local market where you can buy handicrafts, but she told me that she had constructed the basket, and many more, from Cat's Claw Creeper that is overtaking trees on her property.

After curtaining the vines near the base of the trunk of the host tree, she pulled the vines down and used them to weave into baskets, candle holders, rope and twine.

I am always looking for a practical use for otherwise unwanted material, especially an environmental weed only regarded as a

problem plant. Tina saw all that otherwise useless plant material and used it to make a very practical and useful object. The basket making idea got me thinking about alternative uses for all those other weedy vines that have been pulled down from the trees they were choking.

In addition to Cat's Claw Creeper (*Dolichandra unguis-cati*), weedy vines like Crab's Eye Creeper (*Abrus precatorius*), Kudzu (*Pueraria montana* var. *lobata*), Morning Glory (*Ipomea indica*) and Mile-a-Minute (*Ipomoea cairica*) are quite easy to collect and weave. There are other weedy vines that could also be used for weaving, but some will be better than others. Madeira Vine (*Anredera cordifolia*), for example, is too fleshy and fragile and breaks apart easily. Experimenting with different exotic vine species will determine the best potential weavers. Grape vine is also a great material to work with.

Cat's Claw and Crab's Eye can be used straight away as they are most flexible when still green and alive, they also don't shrink a great deal so the object that is made keeps its size and shape. Mile-a-minute and Kudzu, however, are better dried out. These vines shrink as they dry, so it's best to leave them for a week or so, then re-hydrate the vine in water for a short time to regain flexibility for weaving.

So, how do you actually weave the vine into a basket? A quick google search will bring up how-to videos and information about weaving courses that are held regularly around South East Queensland. Tina attended a course where the participants learned traditional basket weaving using a variety of materials, not all weeds, including pandanus, lomandra and flax-lily.

If a basket seems too advanced, why not try some of these easy ideas for using weedy vines that you've removed from the bush;

- Cat's Claw instead of twine to tie up your tomatoes.
- Garden fences and barriers – vines woven between stakes.
- Mile-a-minute, Crab's Eye or Morning Glory to lash bamboo together as a trellis.

Once you start using these materials as replacements for bought materials, you'll most likely start thinking of uses for a variety of plants that would otherwise go into the compost, green waste or landfill. To me, it's a win-win.

Skott Statt
Land for Wildlife Officer
Fraser Coast Regional Council



Morning Glory basket



Cat's Claw Creeper basket



Cat's Claw Creeper ready to be woven.



Mile-a-Minute basket

FAUNA *after fire*

There has been much discussion in the media about the recent bushfire season and the devastating impacts on wildlife. Wildlife carers were inundated with burnt, displaced and injured animals. As someone who lives amongst the gum trees, bushfire risk is something I think about often. Especially on days of heightened fire danger. While I have a bushfire plan and the property is generally well prepared, once the fire danger exceeds 'very high' it's always an anxious time. That's because it's not really a matter of 'if' dry eucalypt forest will burn.... it's 'when' it will burn.

This is part of the reason I choose to use fire as a habitat management and hazard reduction tool on parts of my Land for Wildlife property at Mooloolah Valley. At least this way I have some control over when these areas burn and what type of fire the plants and animals are subjected to. Regular low-intensity fire helps maintain the open structure of the forest which in turn favours the native grasses in the understorey.

From what I can tell, prior to my ownership the last fire was unplanned, very hot and probably more than 70 years ago. Unfortunately, during that long interval between fires, some areas have thickened considerably with the establishment of a very high stem density of thin, tall saplings (*Lophostemon spp* and *Eucalyptus spp*), which in turn have shaded out the native grasses in many areas. I say 'unfortunate' because it's likely that some animal species (e.g. Whiptail Wallaby, Rufous Bettongs, Spotted Quail-thrush and Frilled-neck Lizards) that rely on such open grassy forest have gradually lost their habitat and are now likely extinct in the local area.

Such losses are gradual, occurring over decades and they often go

unnoticed. Of course, there will have been other contributing factors to these disappearances such as habitat fragmentation and feral predation, but the gradual changes in forest structure and species composition that result through a changed fire regime are considered likely to be a contributing factor. The same is true for forests that have been subjected to too frequent fire.

With considerable assistance from the fantastic local rural fire brigade at Eudlo I have been able to reintroduce fire to small areas of my property by undertaking cool, mosaic burns in autumn and winter. My preference is to instigate these burns as soon as possible after the wetter summer months. This means burning when there is still good soil moisture and avoiding the hotter, drier and windier conditions that are more common in spring. Ultimately the individual year and season dictates if and when the burning window opens and for how long. I have learnt that to make it happen, it pays to be prepared early and ready to go when the conditions are right.

Within the designated burn areas there is quite a lot of woody debris such as large fallen logs with hollows that provide

Old habitat trees and fallen logs are important for wildlife, so fuel from around these assets is raked away so the old trees and logs do not ignite.

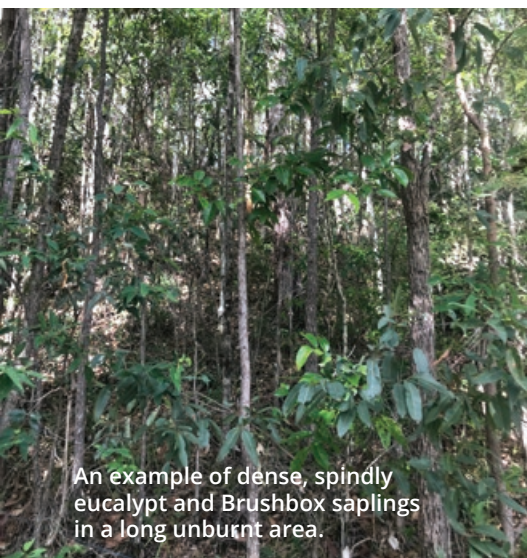


Article and photos
by Nick Clancy
Land for Wildlife Officer
Sunshine Coast Council

habitat for a wide range of species. Pre-burn preparation involves clearing fuel back from around these habitat features so they don't catch alight. The 'spot' ignition pattern (similar to some traditional indigenous burning methods) employed also assists in being able to protect these areas by burning away from them. This method also aids in achieving a mosaic of burnt and unburnt areas within the containment lines of the total burn area.

A few months post-fire and the improved health and vigour of the native grasses in the burnt areas is very obvious when compared to adjacent unburnt areas. By using fire as a habitat management tool in this way the gradual 'homogenisation' of forest structure can be averted by creating a mosaic of forest patches at varying stages of post fire regrowth. This in turn provides a diversity of habitat niches for a wider range of species.

The day after the most recent prescribed burn (July 2019) I deployed motion cameras within these small unburnt patches and on the unburnt habitat logs. I was interested to see if some of the critters that I regularly see in this area would be displaced until after the burn area regenerated. Of particular interest to me were two species



An example of dense, spindly eucalypt and Brushbox saplings in a long unburnt area.



Site 1: During the burn July 2019.



Site 1: Vigorous native grass growth seven months post-burn.



Spot ignition of fire. Note that the low flame height is indicative of a low intensity, cool mosaic burn.



The fallen habitat log has been protected from burning by manually removing fuel from around it pre-burn, and by spot ignition burning the fire away from the log.



BEFORE Site 2: During the burn July 2019.



AFTER Site 2: Seven months after the burn.

that spend much of their time on the ground, the Painted Button-quail and Bearded Dragon. Both species are regularly seen in this area and on an adjacent track. Anecdotal sightings of both species have increased over the last decade since the regular use of fire was re-introduced.

I was also interested to see if the cameras detected any feral predators such as Red Foxes. Research has shown that foxes will opportunistically move in to recently burnt areas presumably to take advantage of the reduced cover available to prey (Hradsky et al, 2017). When I checked the cameras, I was pleased to see that both the Painted Button-quails and Bearded Dragons were photographed using the unburnt 'islands' within a couple of days of the burn. It was also interesting to see a Swamp Wallaby using the area within 24 hours post-burn. No foxes or other feral predators were detected over a two-week period.

Fire management is a complex, often emotive and sometimes divisive issue. The

gap between theory and the realities of practice can be a big hurdle for landholders to negotiate. Being pro-active with the use of fire on your property in South East Queensland, especially in peri-urban areas is challenging as there are many obstacles. These include but are not limited to physical capacity, resources, knowledge, regulation, neighbours, topography, infrastructure, weather and a seemingly shortening window of opportunity to safely put fire on the ground. As relayed to me by a retired cane farmer and current Land for Wildlife member "fire is a good servant but a bad master".

First Nation's people across Australia have used fire as a habitat management tool for tens of thousands of years and the landscape we see today is a product of their fire management practices. When the first Europeans arrived in Australia much of the country was subjected to regular mosaic burning and what they encountered was a country with a rich

diversity and abundance of wildlife. Unfortunately, as we saw last summer we now have a situation where regular uncontrolled and incredibly intense wildfires are having the opposite effect on wildlife populations, populations that are already struggling with numerous others pressures.

The South East Queensland Fire and Biodiversity Consortium has a wealth of information and resources available on their website www.fireandbiodiversity.org.au. They also regularly partner with Land for Wildlife staff to deliver property fire management planning workshops for interested landholders.

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Post fire fauna: (left) A Bearded Dragon sitting on the log and (right) look carefully to see a Painted Button-quail on the far left.





A cool cultural burn on a Land for Wildlife property, Lockyer Valley. Photo by Martin Bennett.

Fire Country: How Indigenous Fire Management Could Help Save Australia

Victor Steffensen

The events of last summer certainly brought the role of fire in the landscape to the forefront of the national consciousness.

Amidst all the finger-pointing and heart-breaking news on the loss of life, property, wildlife and huge tracts of bushland, a few small voices raised the idea of using indigenous fire management techniques as a possible way forward. It was against this backdrop that this book was published early this year.

If you're looking for a 'how to' guide on indigenous fire management, this is not the book for you. What it is, is a fascinating story about the author's life as an Indigenous Australian and how he came to learn the cultural use of fire. It is punctuated with frustration at the obstructions of bureaucracy and institutions and the triumphs of indigenous communities reconnecting with their traditional practices on their own country.

Through story-telling, the book gently proposes that the holistic approach of indigenous fire management can help make 'sick' landscapes 'healthy' again, and prevent wildfires in adjoining 'no-fire country' (i.e. sensitive ecosystems like rainforest and riparian areas). It also highlights the importance of being on country regularly to recognise when conditions are right to burn, and the difficulties that the existing system of permits and permissions pose to this approach.

When the proposal of indigenous fire management was raised during our horrendous summer, I was surprised at how much traction it received, and from some seemingly unlikely quarters. I hope it remains part of the conversation when we, as a country, find time to review our approach to fire and our Australian landscape. *Fire Country* is well worth reading if you want to take part in that discussion.

Review by Peter Hayes



Paperback | Feb 2020 | \$29.99
Colour inserts
240 pgs | Hardie Grant

The Magic of Mary Cairncross Scenic Reserve: A Celebration of Art and Nature

Edited by Les Hall

It's mid-morning in the rainforest on a hot summer's day. I'm sitting at Mary Cairncross Scenic Reserve when a female pademelon with a large joey in the pouch hops under the Red Cedar next to me. The joey hardly fits in her pouch – its head and arms are out and occasionally it sniffs the ground. The birds have had enough to eat for breakfast and have moved onto talking about their day. Pied Currawongs, Eastern Yellow Robins, Wompoo Fruit-doves and Lewin's Honeyeaters are all chatting noisily.

Whenever I go to Mary Cairncross Scenic Reserve I am reminded of how rare it is for a patch of rainforest on flat red basalt soils to be present on the Blackall Range. Most Land for Wildlife properties on the Blackall Range with rainforest are usually on the escarpment because the steep slopes limited agriculture. This is not the case at Mary Cairncross where Elizabeth, Mabel and Mary Thynne donated the land to council for a nature reserve in 1941.

This book celebrates the diversity of life that still exists within this special reserve. Several wildlife artists contributed artworks while the text was contributed by a number of local naturalists. The first chapter is on the local Aboriginal Jinibara culture. The next chapters look at the forest strata: the forest floor, eye level and canopy, covering the plants and animals found at each level. Other chapters discuss the nocturnal occupants and introduced pests of the reserve.

As editor, the late Dr Les Hall AM wanted to feature the art of the reserve and blend it with science to inspire greater appreciation and connection with the reserve. What he has achieved is a visually stunning book that blends art with ecology. The book is tribute to Les' life as a wildlife educator, bat expert and artist with him sadly passing before the book was published.

Review by Stephanie Reif



Hardcover | Oct 2019 | \$59.95
Colour mixed media artwork
162 pgs | Published by Friends of Mary Cairncross Association and available from Mary Cairncross Reserve and local bookstores and art galleries

Rainforests of Australia's East Coast

Peter Krisch

Although this book covers a much broader landscape than just SEQ, it is a must have for anyone seeking to understand our rainforest ecosystems better. It introduces our rainforests and classifies them into major subgroups according to climatic conditions, location, common plants and other features.

For those interested in the evolution of plants, this book provides a concise yet informative summary. It also includes descriptions of commonly distributed rainforest species, including mosses and liverworts, fungi, lichen, slime moulds, ferns, gymnosperms and a larger section on angiosperms.

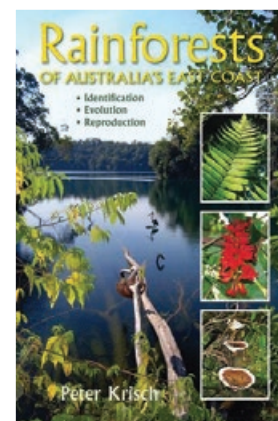
Simple key guides are provided throughout each section, along with many illustrative

photos. There is a handy practical section that will help familiarise the reader with basic plant identification techniques. The book also includes a glossary of terms and comprehensive bibliography for further reading.

Overall, this is a highly informative introduction to rainforests along the east coast of Australia. A recommended read if you are starting out on your rainforest journey or bushwalking, don't forget to throw this one in your bag – who knows what treasures you might find!

The author, Peter Krisch, has an educational website from which the book can also be purchased at www.allcreatedesigns.com.au

Review by Kylie Gordon



Paperback | Apr 2019 | \$36.95
Colour photographs
304 pgs | New Holland Publishers

Australian Rainforest Seeds: A Guide to Collecting, Processing and Propagation

Mark Dunphy, Steve McAlpin, Paul Nelson, Michelle Chapman, Hugh Nicholson

The timing of this book is perfect. During this difficult period for humanity, this book provides a recipe for hope, learning and practical activities.

Subtropical rainforests are complex ecosystems of abundance and giving. Their rich soils and stunning timbers tragically gave license to their demise, resulting in only 5% of their once expansive reign to remain today. This book aims to right some past wrongs and is written with positivity, fortitude and simplicity.

Containing decades of collective knowledge of the authors and their mentors, this book unveils the mysteries of rainforest seed production, collection, storage and propagation. This is commercially valuable intellectual property offered for free by the authors because they love rainforests and are working for their return.

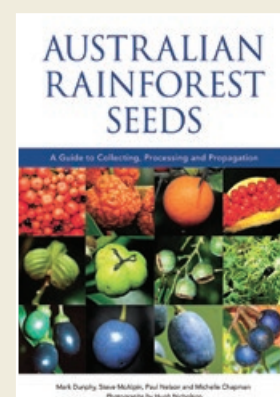
Within this book, readers are shown how to grow 300 different rainforest species. Descriptions of

the seed, fruit and fruiting season and collecting tips are provided to help collectors. Instructions on how to store, process and sow seeds will help propagators. Nineteen processing techniques, such as blending (yes using a kitchen blender), macerating and boiling, are also detailed.

The biology of seeds and fruits, and types of seed dormancy help clarify why processing techniques are needed to 'unlock' seeds and help them germinate.

The expertise and transparency within this book will propel the rainforest restoration industry forward, whether that be for commercial nurseries or backyard growers. It can, and should be used, to inspire research and review industry standards. A wonderful resource for those who appreciate rainforests.

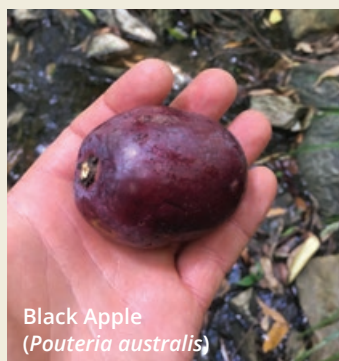
Review by Deborah Metters



Paperback | Feb 2020 | \$49.99
Colour photographs
216 pgs | CSIRO Publishing



Hairy Pittosporum
(*Pittosporum revolutum*)



Black Apple
(*Pouteria australis*)



Zig-zig Vine
(*Melodorum leichhardtii*)



Red Apple
(*Acmena ingens*)



Palms OF SEQ

Knowing where to start with plant identification is sometimes tricky, but with some local knowledge and manageable portions, it's completely achievable. I recall learning key weed species 15 years ago when I first joined the industry, and as anyone who has ever learnt weeds will tell you, strolling through the bush was never quite the same again. The sheer diversity of weeds can initially be overwhelming, but once you get a handle on them and understand their nature, they become slightly less recalcitrant and easier to manage.

The same can be said for learning new native plants. With thousands of species in SEQ, the prospect of knowing each one by name can be daunting. However, if you break this down into bite-sized parcels, it can be manageable. There are many techniques for learning and recalling plant names – you might sing a song, have a funny phrase or simply be gifted with a great memory. There are also great reference books, apps and knowledgeable people to help fine-tune your botanical skills. Of course, your Land for Wildlife Officer is always willing to help.

On a recent property visit, the gully we were in had all four species of native palms found on the Sunshine Coast (complete with feeding doves!). This snippet of local knowledge combined with the landholder's intrigue encouraged me to write this article and hopefully inspire others on their native plant identification journey, starting with the palms of SEQ.

Bangalow or Picabeen Palm (*Archontophoenix cunninghamiana*)

A tall and slender, single-stemmed, feather-leaved palm that gets its scientific name from the Greek word 'archontos' meaning chief and 'phoenix' referring to its majestic or graceful appearance. Leaf sheaths were used by Indigenous people to make containers called 'piccies' and it is likely that this is how this palm got its common name. The April 2016 LfWSEQ newsletter shows how to make a piccie. Young shoots from the crown can be eaten as a vegetable.

Picabeen Palms often grow in colonies along moist creek banks, gullies and wet or swampy forests. They grow to 25m tall, with a diameter of around 30cm and are single-stemmed. The length of the trunk is ringed with horizontal leaf scars. When in flower, they produce clusters of pink to pale lilac coloured flowers 1cm across. Fruit are a waxy orange-red when ripe. Both the flowers and fruit will often litter the forest floor – a great indicator to look up and see what else might be around... if you're lucky you might spot a Wompoo Fruit-Dove feeding.

Lawyer Cane or Wait-a-while (*Calamus muelleri*)

The majority of Australia's palms have cylindrical, unbranched trunks and large fronds, with the exception of this genus. These climbing, spiny plants that resemble vines aren't your 'typical' looking palms, but with their obvious fronds and tendrils, they are considered a climbing palm.

Anyone who has ever been caught up in one of these plants will understand the meaning of their common name. Sometimes forming impenetrable thickets in rainforest margins and clearings, their sharp spines will encourage you to walk a mile to get around it! If you do happen to get caught-up in one of their whip-like climbing structures (flagella), the recurved hooks relentlessly attach themselves to

Picabeen Palm



The red berries of Picabeen Palms are a favourite food of rainforest pigeons such as this Rose-crowned Fruit-dove.



Lawyer Cane



Cabbage Tree Palm

clothing, occasionally even grabbing the unsuspecting hat from your head. Be sure to walk backwards if you get caught.

Indigenous people used the canes and leaves to make baskets, fish nets and traps. The cane is still used today for craft and furniture. The impenetrable thickets and sharp spines of Lawyer Cane also make safe nesting sites for birds like the understorey-dwelling Yellow-throated Scrubwren.

Cabbage Tree Palm or Fan Palm (*Livistona australis*)

Easily recognisable by its fan-leaf with drooping tips, it also has a 'skirt' of dead leaves underneath the crown. The petiole of the fronds also has a thorny row to be mindful of when handling. The single trunk has incomplete horizontal scars where the fronds have come away. It prefers growing in swampy or seasonally wet coastal environments. It is a prolific fruiter, with fruit that are red-brown in colour and densely clustered. Keep an eye out for fruit-loving birds, such as the Rose-crowned Fruit-Dove, eating these fruits.

This palm gets its common name from the edible growing bud at the top of the palm, being the 'cabbage'. These cabbages were harvested by Indigenous people and the first colonists as part of their staple diet and have been described as

having a spongy texture and sweet taste. In addition to being an important food source, it provided fibre for making string, rope, shelters, bags, baskets and fishing nets. Palm cabbages have been common in food production around the world but harvesting results in tree death and is somewhat unsustainable.

Walking Stick Palm (*Linospadix monostachya*)

An understorey, single-stemmed, feather-leaved palm to around 3.5m tall and 2-3cm in diameter. It is not as common as the other palm species. This palm also has edible fruit when ripe. Its small green-cream flowers turn into long 'strings' of ripe, red acidic fruit - however eat with caution and be sure to have the correct species identification! They often grow in small colonies along stream banks and shaded areas and are tolerant to mild frost. Birds will feed on the fruit and Southern Angle-Headed Dragons have been observed camouflaging themselves on the trunk.

The long, slender stems were used by Indigenous people for fishing rods and the buds of the new shoots were eaten raw or cooked.

The slender trunk of this palm was used for walking sticks (and umbrella handles) in the 1800s. Large quantities were shipped

to Europe, but by the 1900s they went out of fashion and shipping ceased. Demand increased again for walking sticks with the return of injured soldiers from the First World War.

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Article and photos by
Kylie Gordon
Land for Wildlife Officer
Sunshine Coast Council



Walking Stick Palm



The tangled prickles of Wait-a-while offers a prime spot for rainforest birds to make a nest safe from predators.

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Blue Tigers and a
Common Crow



Summer Butterflies

The explosion of butterflies flying across SEQ during February-April has been a pleasure to watch. When the drought-breaking rains finally arrived, butterflies decided it was time to emerge from their long hibernation since last summer. Waves of thousands of Yellow Migrants starting heading south in February followed by thousands of Blue Tigers migrating north during March and April. Here are some photos with more posted on our LfWSEQ Facebook page. Enjoy!

Photos by Deborah Metters

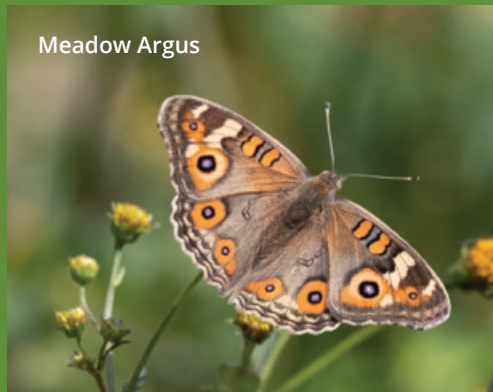
Caper Gull



Australian Painted Lady



Meadow Argus



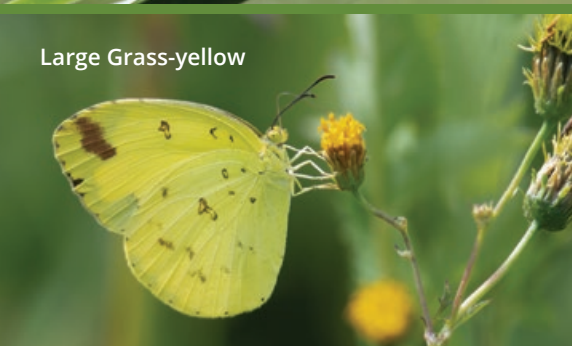
Caper White



Yellow Migrant



Large Grass-yellow



Tailed Emperor (top)
and Evening Brown

