LAND FOR WILDLIFE

SOUTH EAST QUEENSLAND

FEBRUARY 2026 VOL. 20 NO. 1

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Land for wildlife SOUTH EAST QUEENSLAND SNAPSHOT

5,714 TOTAL PROPERTIES

4,569 REGISTERED PROPERTIES

1,145 PROPERTIES working towards RESTORATION

87,597 ha RETAINED HABITAT

10,344 ha Habitat Under RESTORATION

108,264 iNaturalist OBSERVATIONS

17,535 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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EDITORIAL

Welcome TO THE FEBRUARY 2026 ISSUE

Ecological restoration can be a long journey, so it is important to have rests and wins along the way. Depending on the site, restoring an ecosystem can take decades or centuries. As land managers, we have the privilege to move the trajectory of ecosystems towards more ecological resilience, more wildlife, more sustainable rural industries and hopefully more happiness for future generations. It takes time and energy.

In this edition we hear about some recent wins, such as the encouragement from finding a new species on your property. Not necessarily new to science, but a new record for your property.

This happened recently to Ceris and Mark who discovered that their property is home to one of the world's smallest possums, the Eastern Pygmy Possum. Weighing in at <43 grams (that's like a golf ball) and a body length of about 10cm, they are tiny and very cute. This discovery was only made possible thanks to the persistence of Todd Burrows, Land for Wildlife Officer at City of Gold Coast. He diligently went through literally hundreds of thousands of photos from fauna monitoring cameras that he set up on Ceris and Mark's property before coming across this animal with a prehensile tail. Win number one.

Win number two comes from the Sunshine Coast where Michael Reif is both a Land for Wildlife Officer and member. On his property, he built and installed a somewhat makeshift roost for microbats. It took several years for them to decide to roost in it, but now a family of Long-eared Bats, also looking cute, have taken up residence.

Win number three has been twenty-years in the making. John Childs and other formative Land for Wildlife members at Bellthorpe have demonstrated what ecological restoration looks like, how to do it, and the benefits. A ripple effect is now moving through the community of Bellthorpe. It is a hotspot for active Land for Wildlife members with many, like John, choosing to enter into a conservation covenant to protect their property into the future.

With over 5,700 Land for Wildlife properties now across the SEQ region, there are thousands of wins happening all the time. I hope that by sharing some wins from other landholders in SEQ, that you too are inspired to keep moving forward with your restoration journey on your property.

Thanks to all contributors to this edition and please be in touch if you would like to share a win or challenge from your property. Contributions are always welcome.

All the best for 2026.

Deborah Metters
Land for Wildlife Regional Coordinator

We welcome all contributions.
Please send them to:
The Editor
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0437 910 687

Climate & Weather

REGIONAL OUTLOOK Feb - Mar 2026

Daytime and Night-time Temperatures.
Above average daytime and night-time temperatures are very likely.

Rainfall. Mixed forecasts for rainfall with equal chance of above or below average rainfall.

Streamflow. Median to high streamflows are forecast.

Climate Influences

- La Niña is underway and is expected to return to neutral in early 2026.
- The Indian Ocean Dipole (IOD) is forecast to return to neutral.
- Since July 2024, Australia's sea surface temperatures have been the warmest or second warmest on record for each respective month. Warmer oceans can enhance the severity of storms, cyclones and rain systems.

Sources

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

Weeds to Watch Feb - Mar 2026

Thorny weeds can be difficult to get near, yet alone control.

Mysore Thorn is an emerging weed in SEQ that favours roadsides, creeks and rainforest areas. Can grow as a shrub to 4m or a climber into the canopy. Woody seed pods (10cm long) are hairy and visible this time of year.

African Boxthorn produces masses of white flowers in spring. Leaves are pale underneath. Spines can reach up to 15cm long.

Prickly Acacia (*Vachellia nilotica*) has fine compound leaves and clusters of large yellow flowers.

Control these weeds carefully to avoid thorns using cut-stump or basal barking with herbicide.

Top down, photos by Peta Jansma-Reid, lethallb (inset image of fruit), Marie Tarrant and Peter Copping, iNaturalist.

Long-Term Monitoring Pays Off

The elusive Eastern Pygmy Possum.
Photo by Brett Vercoe (@brettvercoe), iNaturalist.

Ceris and Mark Ash have been members with our Gold Coast Land for Wildlife program since 2003 and have protected their high-altitude property at Springbrook through a conservation covenant in partnership with City of Gold Coast. The vegetation mainly consists of remnant ancient upland subtropical rainforest, along with regrowth of warm temperate rainforest and an area of peat swamp rainforest adjacent to a spring fed creek. A plethora of wildlife inhabit the property. A professional fauna survey from the summer of 2022-23 detailed an impressive diversity of animals, but more discoveries were to come.

Through the City of Gold Coast Land for Wildlife program, we loan wildlife monitoring cameras to our members and feed this data into our City's Flora and Fauna database and into iNaturalist. I've had a camera focused on a small wildlife pond that Ceris set up and maintains just inside the edge of the rainforest. The camera has been there for most of the last 6 years and has captured approximately 110,000 images encompassing a stunning array of birds, mammals and reptiles. It is a fair task to go through those images and identify what is coming and going, but it is fun!

In mid-October 2025, I visited to recharge the monitoring camera, which had been out for 5 months and accrued 11,000 images, capturing 27 bird, 11 mammal and 2 reptile species. While going through the images, an infrared night shot caught my attention. I knew we had something special when, through a series of images, I noticed that the mammal's tail was tightened around a branch that was sticking out of the pond. The prehensile tail, combined with the body size, head shape and large ears, meant this had to be an Eastern Pygmy Possum!

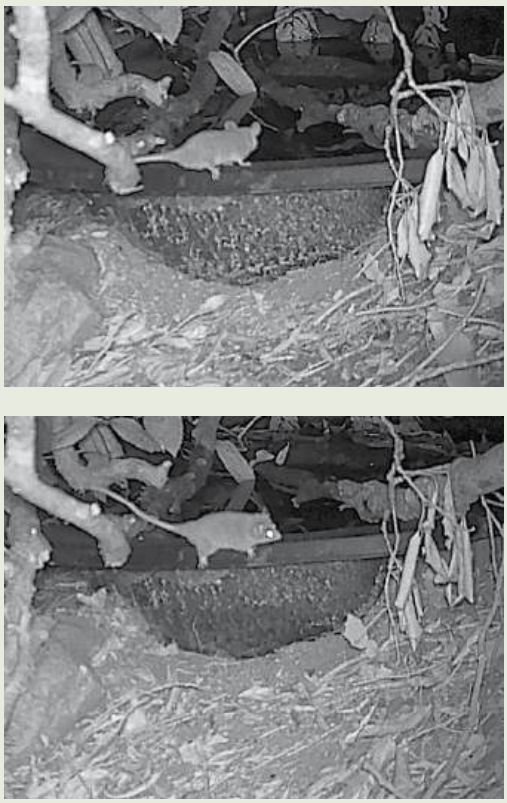
I quickly messaged Ceris to let her know the exciting news, it was a wow moment for both of us. A further look revealed that an Eastern Pygmy Possum visited the pond a total of 19 times from mid-September through to early October. This coincided with a very dry period, suggesting the pond became an important water source for this species during that time.

This is only the second known record of an Eastern Pygmy Possum on a Land for Wildlife property in South East Queensland, the other being the O'Reilly's Rainforest Retreat in Scenic Rim Regional Council. All the limited observations of Eastern Pygmy Possum in Queensland come from around Springbrook and Lamington National Park areas.

Eastern Pygmy Possums are small arboreal possums that feed predominantly on nectar and pollen but also regularly eat insects. With their prehensile tail, they are an agile climber. During winter when food resources are lower, they can go into a torpor to conserve energy, their internal temperature matching the surrounding environment. They only live to four years old in the wild.

This exciting discovery is one of the rewards for the land stewardship that Ceris and Mark have provided to their property in partnership with the Conservation Partnerships team at the City of Gold Coast. It also demonstrated the benefits of long-term monitoring and having a keen eye while sorting through thousands of camera images, as cryptic species like the Eastern Pygmy Possum don't reveal themselves easily.

Todd Burrows
Land for Wildlife Officer
City of Gold Coast



Above: Eastern Pygmy Possums - note the short face, large ears and prehensile tail shown in the top image - the tail is wrapped around the branch.

In comparison, antechinus as shown above have more pointed faces, smaller eyes and smaller ears. Photos by Conservation Partnerships Team City of Gold Coast (ccp), iNaturalist

Until these discoveries by Todd, there were only 19 public records of Eastern Pygmy Possum in Queensland including six from the Queensland Museum, eight records on WildNet, three records on Atlas of Living Australia BioCollect and two on iNaturalist.

You can see Todd's fauna camera images through the iNaturalist account, Conservation Partnerships Team City of Gold Coast (cpp), www.inaturalist.ala.org.au

D.I.Y. Microbat Roost

Last year, I posted some photos on the Land for Wildlife SEQ Facebook page showing a group of Long-eared Bats (*Nyctophilus* spp) using a roost made from some plant pots and old jeans. Much to my surprise this became one of the most shared and commented on posts for both the Land for Wildlife SEQ and Sunshine Coast Council Facebook pages! This article is a follow up to this post to provide information on how to make one of these bat roosts.

How to make your own Microbat Roost

1. Find some old jeans and cut the legs off! How long the legs need to be will depend on what they will be hanging out of. Options include a plant pot, bucket or old gumboot – let your imagination decide. The example shown here uses a plant pot, which is useful because the holes at the base of the plant pot will be used to secure the jean legs. The legs need to hang down enough (30-40 cm) for the bats to fly to them and then crawl inside.
2. Tie the cut ends together so that each leg is sealed up. You can sew the open leg ends together or just put a cable tie tight around each leg. In this example I used cable ties.
3. Secure the legs (sealed up end) to the inside of the pot. Cables ties through the jeans and drainage holes were used for this.
4. Weather proofing (optional - if your roost will be under cover this step is not required). As this roost was originally going to be outside, I used some leftover roof insulation and ducting tape to seal the drainage holes to minimise water entry, making sure to put some rope through the holes before sealing. A second pot was placed over the top for extra insulation. This has also created great habitat for mud-dauber wasps!
5. Hang the roost high enough so the bats have at least a 3m clearance above the ground. When the bats leave the roost in the early evening they drop out and fly away.
6. Wait and be patient. It can take a while for your local bats to find the roost. In my case it was probably 2-3 years before I noticed it being used. Usually, the first signs of occupation are small (less than 1cm), elongated scats under the roost.

A few more tips

1. Use your imagination. This design was a result of the materials available at the time. A bucket or gumboot might be an easier waterproof option than plant pots. A folded beach umbrella or raincoat attached to a tree trunk or branch may be just as effective.
2. If possible secure the roost firmly. This one was hanging from a rope and moved about in strong winds, so it seems like it was only used as a back-up optional roost in very rainy weather. Since taking these photos, I have reinstalled it firmly with large cable ties to reduce movement.
3. This style of bat roost will usually only work for species of microbat that naturally roost under loose bark. Species that rely on caves or very large hollow trees are unlikely to use them. These Long-eared Bats are known to roost in tree hollows, epiphytes (eg. staghorns and elkhorns), under peeling bark and sometimes in banana bags! Identifying microbats to a species level can be quite difficult as there are about 25 species of microbats in SEQ and they can look very similar.
4. Admire the bats from a distance and never handle them. If bitten or scratched seek medical advice immediately as bats can carry diseases that can be transferred to humans through bites and scratches.

Microbats are probably the most overlooked group of mammals in SEQ. They are great to watch flying around fast on dusk. They eat a wide range of invertebrates such as moths, mosquitoes, beetles, flying termite alates and spiders. Microbats are important natural controllers of pest insects in agricultural environments and they help maintain a balance of invertebrates in ecosystems. Consider yourself lucky to have microbats around and goodluck with your DIY microbat roost.

Article and photos by Michael Reif
Land for Wildlife Officer
Sunshine Coast Council


Attach cut jean legs to inside of pot


Optional weatherproofing


Ready to install


Installed


Wait. Be Patient. Bats!

From Lantana to Lush Forest

A BUSH REGENERATION JOURNEY IN BELLTHORPE

When John and his partner Sandra first set foot on their Bellthorpe property in 2001, they were met not with lush forest, but an overwhelming sea of lantana. Once a dairy farm, the land had been extensively cleared in the mid-20th century and later overtaken by invasive species.

"You couldn't even see the gully for the lantana. There were two car wrecks down there completely hidden by weeds," John recalls.

Originally purchased for its natural beauty, the couple didn't plan to launch a major bush regeneration project. But once on the ground, the extent of environmental degradation spurred them to action. Their mission quickly became clear: remove the lantana and let nature heal.

John's background in rural science and decades working in agriculture and ecological research helped him understand the landscape not only from a production standpoint, but through an ecosystem lens. That knowledge, combined with an emerging passion for conservation, became the foundation of what would become a long-term rehabilitation effort.

Armed with a brushcutter and some ecological insight they began what would become a two-decade-long transformation. Their first efforts involved manual removal of lantana and careful, minimal use of herbicide on stumps to prevent regrowth. "I was really ignorant to start with," John admits, but the land had lessons to teach.

What they discovered was remarkable. Initially, John attempted to plant native species, but he soon realised the forest was eager to return on its own, if given the chance. "I started planting things, and then I found it was a waste," he laughs. Birds brought in enough seed, vines returned, and rainforest palms reappeared. These were signs that the forest's natural cycles were restoring themselves.

What seemed like chaos to some was, in fact, nature's own blueprint. Vines, often misunderstood as damaging, played an essential role. They brought down dead trees and made way for new growth. Understorey plants waited patiently for a window of sunlight to begin their lifecycle. "It's a natural self-recovery mechanism," John explains.

As the bush came back to life, so did the wildlife. Bandicoots, echidnas and a thriving bird population, as documented in a lengthy species list compiled by local bird expert Eric Anderson, now call the area home. John even has hopes of seeing the elusive Coxen's Fig-Parrot, should the fig trees keep thriving.

In 2009, John formalised his commitment by joining Land for Wildlife. Encouraged by local council staff and fellow landholders, the program offered more than advice, it connected him to a growing network of stewards across the region. "There was always someone from council willing to help," he says. "And it meant I could keep learning."

Later, the family entered into a conservation covenant with a Voluntary Conservation Agreement (VCA) - a step that gives permanent protection to the land's ecological values. "It just seemed like a sensible thing to do," he says. "You put all this work in, and you want it to last beyond you."

Fire trails and boundaries once used for dozing and logging have now become corridors of biodiversity. Nest boxes for gliders and other hollow-dependent species have been installed. Some are high in the canopy to suit the Greater Glider's lofty preferences. With camera monitoring underway, there's cautious hope for new wildlife discoveries.

Despite the enormity of the task, John says he was never overwhelmed. "Fortunately, I was 10 or 15 years younger," he laughs. The work was hard, but the results have been deeply rewarding. Now, with dense shade and a stable canopy, weeds struggle to gain a foothold. "Once palms come in, you know the forest is on its way back."

Bellthorpe is now one of the most active regions in Queensland for Land for Wildlife and VCA properties. This is no accident. Community word-of-mouth, local council support and the visible success of properties like John's have helped create a ripple effect.

Neighbours share tips, tools and time. One nearby landholder even granted John permission to remove lantana from their gully - creating a broader catchment-wide effort to suppress regrowth and reduce seed spread.

"Weeds have to work hard to come back here now," John says.

But John doesn't see his work as done. "The next step is encouraging more people to join in. We've got great momentum, but there's always room to grow the network."

Through programs like Land for Wildlife and Voluntary Conservation Agreements, landholders like John are helping stitch together fragmented habitats, creating safe passage for wildlife and restoring the natural rhythms of the landscape. They are not only conserving land, they are rebuilding resilience.

Today, the property is not just a haven for biodiversity - it's also a model of what persistence, patience and community can achieve. John's next goal? Encouraging more neighbours to join in. "The more connected the landscape, the better it is for everyone, wildlife included."

What started as a simple desire to live in the bush has grown into a lasting legacy. John's story is a living example of what it means to care for land, not just for personal use, but for its ecological value and the species that depend on it.

Article by John Childs
Land for Wildlife member
Bellthorpe, Moreton Bay, and

Debbie McQuattie
Land for Wildlife Officer
City of Moreton Bay

Before (2000)

After (2023)

For 25 years, John has helped nature heal and has allowed a rainforest to establish.

"*Once you've got a healthy canopy, it becomes hostile to lantana. That's the key. Build an ecosystem that holds its own.*" - John Childs

THE ONGOING EVOLUTION OF *Cicadabirds*

Male Cicadabird. Photo by Todd Burrows.

Summer is once again upon us and with it comes the humidity and the inevitable storms. We've already welcomed those obvious, raucous, northern migratory birds, the Eastern Koels and Channel-billed Cuckoos with their booming calls, and in the case of the Channel-billed Cuckoo their unmistakable look and silhouette. There is however another northern migratory bird that has also slipped into our midst that is largely unseen and unheard, except by keener wildlife observers.

Mid to late September is when the Sahul Cicadabird starts to reappear along the east Australian coastal fringe. These birds have spent the cooler months in far north Queensland and New Guinea and have flown south to breed (small and inconsistent numbers of birds have been reported overwintering in the Brisbane region).

The name Sahul Cicadabird is still relatively new and is still being recognised in ornithological circles. Recent DNA analysis of what was the 'Common Cicadabird' has seen this broken into multiple new species with many subspecies. The Sahul Cicadabird retains the 'old' species name (*Edolisoma tenuirostre*) and is made up of six subspecies, two of which are found in Australia. The endemic, non-migratory one is found in northern Australia. The other one, subspecies *tenuirostre*, migrates north/south from far north Queensland and Papua New Guinea and temporarily calls SEQ 'home'.

The whole Cicadabird genus (*Edolisoma*) is an incredibly complex array of species and subspecies that's a result of successive radiation into new territory followed by isolation and remixing events during the Pleistocene. For this reason, the cicadabird has been described as a 'great speciator'.

Sahul Cicadabirds are strongly sexually dimorphic in their plumage. Males are quite striking even though they are basically just grey and black. Females on the other hand, have a light-brown chest with thin darker-brown barring from the upper chest to the lower belly. Their eye stripe is dark brown with a lighter brown eyebrow. Juveniles are similarly coloured to females but have more pronounced barring.

Come nesting time a shallow cup shaped nest is built high up in a tree. It is commonly constructed of bark, dry grass, small twigs and lichen, all of which is held together by spider web. The exterior is then adorned with lichen and moss. Into this is laid a single egg. Both parents feed the growing chick, although the female does the majority of feeding. By April/May juvenile birds will be ready to join their parents for the long migratory journey north.

There are various reasons why Sahul Cicadabirds aren't regularly reported, all of which relate to their lifestyle. They tend to be solitary birds, getting around singularly, in pairs or small family groups. On top of this they prefer fairly closed mature forest, or old regrowth forest where they spend the majority of their time mainly high in the tops of trees searching for food. Their diet consists mainly of large insects including cicadas. They also eat fruit and seeds.

Although they do eat cicadas, the 'cicada' part of their common name is in reference to their primary call, rather than any culinary preference. This is a short, repetitive, almost insect-like 'buzz' (which is another reason they go undetected) that will be repeated 8-20 or so times. As for the name Sahul this is a reference to its geographical distribution – the Sahul Cicadabird is found in Australia, New Guinea and Islands off New Guinea. Sahul is the name of the Pleistocene connected landmass of Australia and New Guinea that periodically formed during glacial extremes during this epoch.

Over the next couple of months keep an ear and an eye out for the Sahul Cicadabird which is a great example of ongoing evolutionary processes and the interconnectedness of the natural world.

Article by Tony Mlynarik
Land for Wildlife Officer
Brisbane City Council

References and Further Reading

Pendersen M et al (2018) Phylogeography of a 'great speciator' (Aves: *Edolisoma tenuirostre*) reveals complex dispersal and diversification dynamics across the Indo-Pacific. *Journal of Biogeography*.

www.worldbirdnames.org

www.brisbanebirds.com

www.birdforum.net

www.ebird.org

Photo by Mark Clarke (hatwise), iNaturalist

Photo by Chris Burwell (christopherburwell), iNaturalist

Female Cicadabirds. Despite eating cicadas, such as this Green Grocer cicada (left), Cicadabirds get their name not from their diet but from their buzzing, cicada-like call.

THE IMPORTANCE OF *Invertebrates*

Invertebrates serve a multitude of essential roles to keep the world's ecosystems functioning. The most obvious example is their essential role in the food web. Invertebrates serve as a fantastic, abundant, protein rich food source for the animal kingdom. They are a staple for many small-bodied animals including lizards and frogs, many species of bird, and mammals including antechinus and microbats. There is even a market for invertebrate protein for human consumption growing around the world and is likely to become a modern food resource.

The different life stages of invertebrates that undergo metamorphosis can serve as food for different predators at their varying life stages. Consider the maggot and the fly, the same organism that is food for many and very different predators.

Insects are also fantastic biocontrols for many of our weed species, such as the lantana hispid which was released into the country as a way of managing lantana (*Lantana camara*). While they aren't capable of completely wiping out lantana, they certainly slow down the plant's growth and ability to reproduce forcing it to spend energy defending itself instead.

Invertebrates also perform essential ecosystem services such as nutrient cycling. Native burrowing cockroaches are quite unlike their infamous pest relatives. Living within the leaf litter and under rocks of our natural areas, they eat bark, wood and leaves and take this into their underground burrows. In doing so, they help reduce the fuel load on the forest floor and convert it into fertiliser where roots can easily access it.

Millipedes are the wood pulp converting equivalent to burrowing cockroaches. You can find them out foraging on a cool night. With poor adaptations to retaining water, they're often found when the air is more humid or after rain. The rotting flesh of fruit and animals is also thankfully not left to linger long, with the larvae of flies breaking down these unsavoury food items.

And yet somehow, only at the end of this article have we gotten to the ecosystem service that people most associate with the most obvious invertebrates, the insects - pollination. Famously done by bees, this service is in fact offered by a whole range of insects including butterflies, wasps, beetles, moths, flies and thrips. A beautiful co-evolution where flight is the expensive bodily function that allows them to reach food, and pollen is the high-energy motivator offered by plants, with fertilisation being the plants' reward.

There are countless specific plant-animal interactions where unique body parts are required to access specific flowers, or certain odours have evolved to attract specific pollinators. The greater the diversity of plants on your property, the greater the diversity of insects that visit.

Maintaining a wide range of native plant species on your property is a great way to attract, house and raise your own collection of invertebrates to appreciate. In addition to plants, providing pans of wet sand or muddy creek banks allows butterflies to absorb and drink water and salts. You can also leave out a paver or rock in the sun as a place for them to bask, as invertebrates are cold-blooded. Furthermore, the underside of this basking rock will offer habitat to creatures that shelter and congregate in damp dark places like isopods and grubs. Leaving bark around the base of trees and on their trunks also provides fantastic habitat for many invertebrates and the many predators, such as geckos and spiders, that feed on them too.

There are over 500 species of native cockroach and at least 2,000 species of native millipedes in Australia. They are important decomposers of dead plant matter and play an important role in enriching the soil through nutrient cycling. Above photos by Greg Tasney.

Muddy creek banks and bowls of wet soil in a garden provide opportunities for butterflies to drink essential salts like magnesium and sodium. This is often referred to as 'mud-puddling'. Photo by Deborah Metters.

You can imagine the meal this female Goliath Stick Insect would provide to a kookaburra!

A healthy leaf litter layer is crucial habitat for many ground-dwelling invertebrates. Many invertebrate nymphs or larvae live for much longer than they do as adults. For example, a nymph cicada can live for seven years underground but the adult lives for only a few weeks. If you want to start recording the invertebrates on your property, iNaturalist is a great tool for getting your photographs identified.

Article by Gibson Kelly
Land for Wildlife Officer
Logan City Council

RESTORING THE Rosewood Scrub

Only a fraction of the once-extensive Rosewood Scrub remains, with most patches in small fragments along roadsides and on private properties.

When Chris and Martin purchased their 20.3 hectare property at Tallegalla in western Ipswich nine years ago, it was approximately 75% covered with mature lantana, had three areas of Cat's Claw Creeper and had not been maintained for a number of years.

Martin and Chris saw this property with optimism, claiming that it would be a "fun project" to turn it into productive land and to preserve remnant patches of native vegetation. Neither of them were aware that there was a 2-hectare vine thicket at the top of a hill prior to purchasing, nor was it marketed as a positive feature by the real estate agent. Martin, having had just retired from a long career of natural area management, thought this was a very doable project.

Soon after purchasing, they joined Land for Wildlife in 2016, and I have visited their property several times over the last few years. During our recent site visit, hardly any lantana was encountered whist walking through the paddock, instead, regenerating Maiden's Wattle (*Acacia maidenii*), Red Olive (*Elaeodendron australe*), Rough-leaved Elm (*Aphananthe philippinensis*) and Native Olive (*Notelaea microcarpa*) dotted the lush, rolling hills.

Martin and Chris run 25 head of Australian Lowline cattle, which are a small breed of cattle with relatively low impact and an efficient feed to biomass conversion rate. They are rotationally grazed throughout nine paddocks on the property and are only grazed for 3-4 months annually through the large top paddock that has the vine thicket.

'Vine thicket' or 'Scrub' are often used as colloquialisms for dry rainforest or semi-evergreen vine thicket (SEVT). These vine thickets are dense and dark, and are typically made up of rainforest tree species with a low canopy height (less than 9m high), small-sized leaves (2-7 cm long) and the abundance of trees with swollen trunks, such as bottle trees (*Brachychiton* spp.) or figs as emergents, which rise above the canopy. As the name suggests, twining or scrambling vines are also a prominent feature, as is the mixture of evergreen, semi-evergreen, and deciduous tree species.

The temperature dropped as we walked into the vine thicket and we were greeted by Bloodvines (*Austrosteenisia blackii*) as thick as our thigh draped over a large Rock Fig (*Ficus rubiginosa*). I encountered one of the largest Satinwood (*Vitex lignum-vitae*) trees I have ever seen in the Ipswich region. Large scrub species like these are generally only found on council reserves including Sterling Road Reserve, Cameron's Scrub and Flinders Peak in very small, isolated pockets.

About 90% of semi-evergreen vine thickets in SEQ were cleared during European colonisation and these ecosystems are now listed as Endangered under Queensland and Commonwealth legislation.

Aerial imagery from QImagery clearly shows that this vine thicket, mapped as Regional Ecosystem 12.9-10.15 was already a remnant patch back in 1951, having survived the broadscale clearing by timber getters and German pioneers in the late 1800s. This is one of the few remaining patches of the once extensive Rosewood Scrub.

Research conducted by historian, Dr Ray Kerkhove for Jagera Daran indicates that the Rosewood Scrub could have covered 31,000 hectares and stretched from Walloon to Grandchester and then back to the Brisbane River. Prior to colonisation, the Jagara clan lived in and around the scrub, an important place for collecting berries and fruit. Over 50 species of native plant were eaten and over 30 species were used medicinally. Tallegalla contained important pathways, campsites, hunting grounds, waterholes and ceremonial sites for First Nations People.

Rosewood Scrub is a type of SEVT, characterised by slow growing softwood trees, and a plethora of shrubs, vines and ground cover. Rosewood (*Acacia fasciculifera*) and Brigalow (*Acacia harpophylla*) can occur as emergents with vine thicket understorey species. Black Bean, Red Cedar, Blue Gums and even White Booyong can often be a feature along waterways, whilst Hoop Pines, Crows Ash and Shiny-leaved Stinging Trees grow in the higher terrains. What allows these unique floristic community to persist in this region is the relatively fertile, volcanic soils, access to ground water, and the evolutionary history of this vegetation community as a refugia.

Much like the Big Scrub of Northern NSW (75,000 hectares), only a fraction of the Rosewood Scrub remains, with most patches in small fragments (<5ha), precariously hugging roadsides, and on private properties. The largest protected patch of SEVT in this region is in Sterling Road Reserve in Rosewood.

The plants of the Rosewood Scrub are slow-growing and fire sensitive. Several Land for Wildlife members in the Tallegalla area, including Martin and Chris, are gradually protecting and restoring patches of the Rosewood Scrub. Given the small patch size of the remaining scrubs and fertile soils, invasive weeds like Madeira Vine, Cat's Claw Creeper and Climbing Asparagus pose massive challenges.

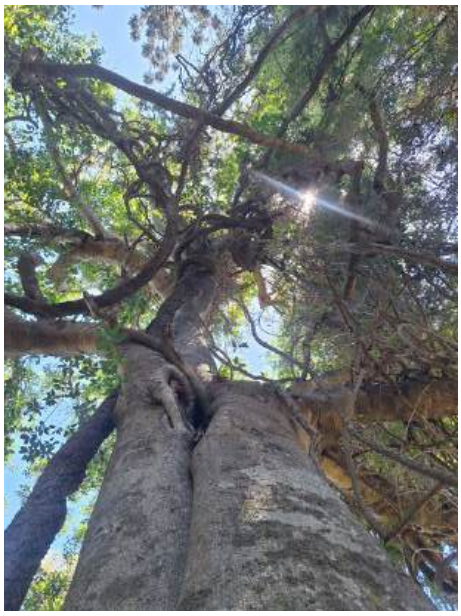
Work by the renowned naturalist, Arnold Rieck, indicated that the Rosewood Scrub was extremely biodiverse, containing between 300-400 species of plants. Arnold Rieck's work can be seen at the Rosewood Scrub Arboretum at Peace Park, established back in 1994 with Native Plants Queensland and Ipswich City Council.

Martin and Chris are deeply committed to conserving this vine thicket through strategic weed management of lantana, Climbing Asparagus and have almost completely controlled the small section of Madeira Vine. They've planted vine thicket species along existing gullies to connect corridors throughout their property. They engage a local bush regenerator on a regular basis, and their collective hard work is starting to pay off.

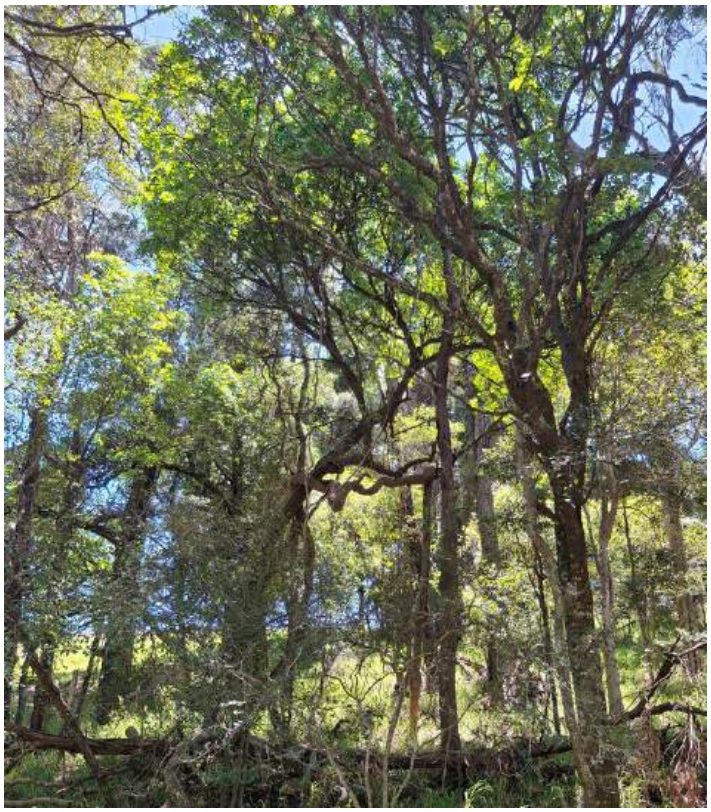
Article and photos by Ko Oishi
Land for Wildlife Officer
Ipswich City Council

Qimagery 1951. This patch of remnant vine thicket in Tallegalla somehow escaped the axes 75 years ago.

Nearmap 2025 showing the same patch of vine thicket.



Massive Bloodvines (*Austrosteenisia blackii*) drape over a remnant Rock Fig (*Ficus rubiginosa*) in a remnant patch of Rosewood Scrub on Martin and Chris' property.



Invasive vines can be rampant in the now heavily fragmented Rosewood Scrub. The fertile soils, slow-growing native plants and highly fragmented remnant patches create perfect conditions for weeds.

Wild Macadamias

PROTECTING POPULATIONS IN THE REDLANDS

Rough-shelled Macadamia (*Macadamia tetraphylla*). Photo by Greg Tasney (gregtasney), iNaturalist

As a child it was always a treat to see a bag of macadamias arrive in the house, knowing there would be lots of fun ahead for myself and my siblings - placing the nuts in a hole in the concrete, getting the biggest hammer we could find and cracking to our hearts content. Who doesn't love eating macadamia nuts?! First Nations People from across SEQ have enjoyed and traded macadamia nuts for thousands of years.

Many people are unaware that there are four species of macadamia and all of them are native to Queensland.

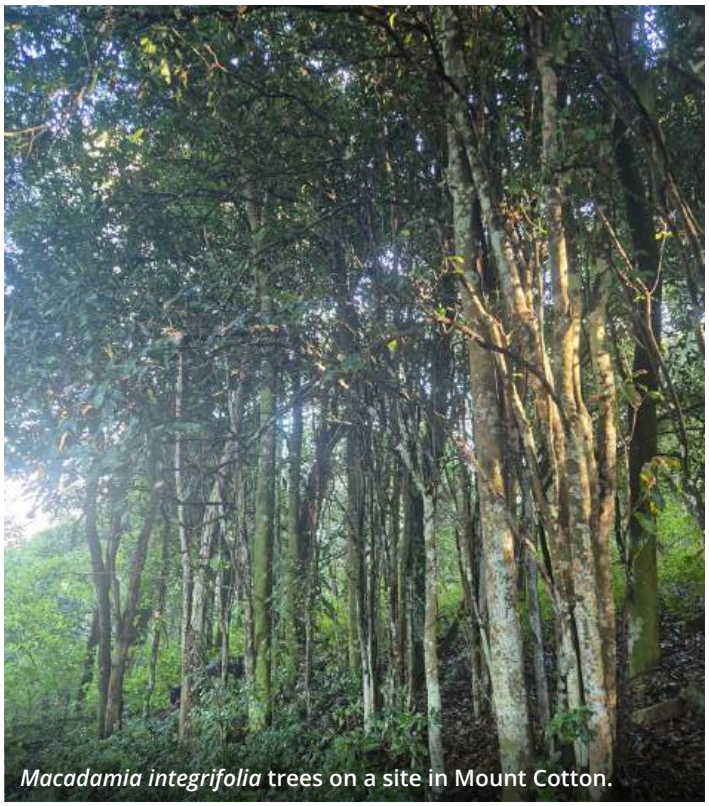
Unfortunately, wild macadamia trees and their habitats have declined in Australia since European settlement. The three most common species of macadamia are Queensland Nut (*Macadamia integrifolia*), Rough-shelled Macadamia (*Macadamia tetraphylla*) and Gympie Nut (*Macadamia ternifolia*). These species are all listed as Vulnerable under Queensland and Commonwealth legislation. The fourth species, Bulberin Nut (*Macadamia jansenii*) is listed as Critically Endangered under the Queensland *Nature Conservation Act 1992* and Endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

The Redlands has *Macadamia integrifolia* and probably hybrid *Macadamia tetraphylla*. More insights will be gained when genetic analysis from leaf samples is complete.

Wild macadamia populations face several threats, namely:

- **Habitat Loss**. Approximately 80-90% of macadamia habitat has been lost since European settlement.
- **Weed Invasion**. Weeds that form a dense groundcover can block macadamia germination, while invasive vines can smother and kill seedlings and mature macadamia trees. Weeds that seem to have the greatest negative impact on macadamia populations at Mount Cotton are Ochna, Coral Berry, Cat's Claw Creeper and Madeira Vine.
- **Livestock**. Poor livestock management has resulted in damage and loss of macadamia populations.
- **Loss of Connectivity.** Loss of wild populations across the landscape and widespread planting of genetically similar orchard stock has the potential to cause genetic dilution.
- **Fire**. Macadamia trees may survive low intensity fires by resprouting but are likely to be killed by high intensity fires.
- **Climate Change**. It is predicted that climate change will have a negative impact on wild macadamia populations through increased heat and changes to rainfall patterns. These may lead to tree stress and increased pest infestation.

Gympie Nut (*Macadamia ternifolia*). Photo by Greg Tasney (gregtasney), iNaturalist



Macadamia integrifolia trees on a site in Mount Cotton.



Flowers, leaves and nuts of Queensland Nut (*Macadamia integrifolia*).

In 2015-16, Healthy Land & Water, Macadamia Conservation Trust and Redland City Council partnered together to survey known locations of wild macadamias in the Redlands. The health of each population was assessed, key threats were identified and potential habitats for unrecorded populations were mapped.

The project report recommended five main actions:

1. Additional surveys to be undertaken.
2. Leaf samples to be collected to ascertain genetic health.
3. Creation of linkages and expansion of existing macadamia populations.
4. Engagement with the Redlands Coast community on wild macadamia conservation.
5. Provision of planning protection for existing wild populations.

In 2024, the Macadamia Conservation Trust (now Wild Macadamia Conservation) and Redland City Council commenced a 3-year collaborative project to:

- Identify and map wild macadamia populations on private property.
- Engage with landholders and deliver financial support through grants to manage threats and restore wild macadamia populations. Example activities include planting, weed management and fencing.
- Engage with key stakeholders including First Nations People.
- Collect leaf samples from key macadamia trees for genetic analysis.
- Review options for protection mechanisms on private property.

Liz Gould from Wild Macadamia Conservation works with Redland landholders on macadamia identification.

- Educate the broader community on the values and threats to macadamia populations.

Through the project to date we have engaged with a wide range of property owners, undertaken macadamia educational activities, identified locations of wild macadamia populations on private and public land, captured spatial data, mapped wild macadamia locations and begun the process of providing financial support to registered participants.

Article and photos by Maree Manby
Land for Wildlife Officer
Redland City Council

Macadamia Identification Tips

Macadamia integrifolia
- Leaf tips rounded or pointed
- Mature leaves smooth and wavy
- Juvenile leaves coarsely serrated
- New leaves pale green
- 3 leaves per node (but can be 2 or 4)
- Flowers - cream colour
- Nuts – thick, hard, smooth and edible

Macadamia jansenii
- Leaves smooth, wavy and pointed
- New leaves coppery
- 3 leaves per node
- Flowers – cream-brown colour
- Nuts – thin, hard, smooth, a bit bitter and inedible

Macadamia ternifolia
- Leaf tips sharply pointed
- Leaves moderately serrated
- New leaves pink/red
- 3 leaves per node
- Flowers – pinkish or cream
- Nuts – thin, hard, smooth, bitter and inedible

Macadamia tetraphylla
- Leaf tips firmly pointed
- Leaves densely serrated
- New leaves red
- 4 leaves per node (but can be 3 or 5)
- Flowers – pinkish-purple colour
- Nuts – thick, hard, bumpy and edible

Catchment Management

Since we took occupancy of our Mount Nathan property in August 2022 our daily rainfall records depict widely fluctuating conditions. There have been a number of high rainfall periods in this time with the most intense being in March 2025 with Cyclone Alfred with 710mm recorded over three days, and a total of 980mm for the month. There have been a number of months in the past three years where the monthly rainfall has been above the long term monthly average rainfall based on the official Bureau of Meteorology records from its Clearview Alert station 40846 located approximately 1km from our property. This information has been invaluable in planning and implementing land restoration, soil erosion and runoff control and channel stability works on our property.

Catchment Characteristics

Our property occupies parts of two upper catchments of the Nerang River system which drain a large proportion of the eastern side of Mount Nathan. The southern drainage area is very steep with a fast flowing channel that is deeply incised into bedrock. Its catchment area is entirely forested right to our eastern boundary. The catchment area on the northern end of our forest is smaller in area and less steep than the southern catchment, and is the subject of this article.

The area of the southern catchment is 3.6ha of which 0.56ha is within our property. The length of the main channel is 375m of which 185m flows through our property. The elevation range is 160m from the summit of Mount Nathan to where the main channel leaves our property on the eastern boundary. The average slope of the total channel is 4.2% so it is very steep and fast flowing. Approximately 80% of the catchment is open eucalypt forest. Various rainforest species occur in the shady confines of the drainage line. The remaining 20% is advanced regrowth forest and portions of the lower catchment area were partially cleared in the past for grazing on our property and for banana plantation on the neighbouring property.

By August 2022 the drainage line within our property was in a very active phase of bed and bank erosion. There was little ground cover on the side slopes, beneath the thick cover of Lantana, Devils Fig, Tobacco Bush, Crofton Weed, Molasses Grass and Triumfetta. The ground surface was characterised by extensive sheet and rill erosion.

Restoration Plan

The restoration plan focused on the drainage channel and adjacent slopes and was divided into two zones. The objective was to restore channel stability by controlling erosion of the channel bed, control erosion on adjacent hillslopes, remove invasive weed species and induce regeneration of native species. These activities would take place in accordance with our Land for Wildlife Assessment Report prepared under the City of Gold Coast Community Conservation Partnership Program.

Zone 1 comprises the land from the upstream western property boundary to the 'gateway', where the channel slope flattens considerably being an old depositional area. Zone 2 comprises the area from the gateway to the downstream eastern property boundary.

Zone 1: Upstream Drainage Channel

The length of drainage line in Zone 1 is 125m, with an average gradient of 2.7% at the property boundary, decreasing to 1.6% at the gateway. On occupancy, the area within the channel and its side slopes were heavily infested with Lantana, Tobacco Bush and Devils Fig. It was used by feral deer as a main thoroughfare. The initial focus was on weed removal, followed by construction of rock sediment traps, and rock lining to stabilise the channel floor and parts of the side walls to reduce bank undercutting. At those points where the channel was deeply incised, a rock flume was constructed to safely convey runoff through a 1-1.5 metre drop in channel level. The main hydraulic construction is the 10sqm rock flume at the gateway, to control the bed erosion in this area and to safely convey runoff to Zone 2.

Zone 2: Downstream Drainage Channel

The length of drainage line in Zone 2 is 60m and bed slope is 1.6%. The main focus in the deeply incised Zone 2 has been the construction of silt traps, rock lining the channel floor and some sidewall sections, and the construction of two rock flumes, and a plunge pool just beneath the Zone 1/ Zone 2 interface. Like Zone 1, the channel area in Zone 2 was heavily infested with Lantana, Tobacco Bush and Devils Fig which was removed prior to the constructed works.

Weed removal

By the end of 2022 weed removal in both zones had commenced mainly by hand pulling. The weed control method follows the natural regeneration methodology based on the South East Queensland Ecological Restoration Framework. The main species removed include Lantana, Corky Passionfruit, Brazilian Nightshade, Molasses Grass, Wild Tobacco, Chinese Burr, Broad-leaf Paspalum and Ground Asparagus. The cut lantana was spread as mulch, which has proved very effective for soil surface protection and moisture holding as a bed for emerging native species. Primary and maintenance sweeps have been carried out under our 2023-2024 and 2024-2025 City of Gold Coast Nature Conservation Assistance Program (NCAP) grants to reduce the re-emergence and spread of weeds downstream.

Ground surface treatment

The two main structural forms implemented to control soil erosion of the land surface include rocks, branches and logs laid at right angles to the direction of the slope to reduce the speed of surface run-off and to trap sediment and debris. This is simple technology but is very effective when widely applied. These materials were used on the broad areas of hillslope and laid across small depressions where surface water concentrates. The basic principle is to slow the rate of runoff, trap and prevent sediment from reaching the drainage channel.

Feral Deer Management

The northern drainage line is an established feral deer corridor between the cleared lowland to Mount Nathan Reserve. The eroding, bare deer tracks are treated by constructing low rock and log barriers, and by placing branches across the slope to trap sediment and reduce overland flow.

Maintenance

Most of the works described above have been operative for two years now and

have been tested by numerous high daily rain events as well as the extreme cyclonic event of March 2025. Regular inspections are carried out to ensure silt traps remain clean, and that rock and log barriers are in place. Sticks and branches are removed from the channel environment to prevent blockages. The natural steep gradient of the main channel, to a certain extent ensures 'self-cleansing' but because it is a high velocity channel there is always the risk of rocks dislodging, sending a destructive flood-wave down the channel. Regular attention ensures the in-channel protective works remain functional and stable.

Regular inspection of the slopes adjacent to the main channel is carried out to ensure that the rock and log barriers remain intact and to undertake any additional in-filling if necessary. Attention is on-going to the regularly used deer tracking corridor. On-going monitoring is essential to ensure that minimal sediment reaches the greater downstream waterway system of Nerang River catchment.

Article by Ian Hannam
Land for Wildlife member
Mount Nathan, Gold Coast

We gratefully acknowledge the valuable assistance and expertise of Melanie Mott, our Conservation Partnerships Officer from the City of Gold Coast.

Rock protected waterways remain intact during fast-flowing rainfall events.

Rock flumes reduce the energy of flowing water.

Logs and branches have been placed across the slope to slow surface run-off and trap sediment and encourage plants to grow.

Rocky silt traps reduce the water flow energy and trap silt, enabling plants like lomandras to become established.

Land for Wildlife South East Queensland proudly delivered by:

LAND FOR WILDLIFE
VOLUNTARY WILDLIFE CONSERVATION

Powerful Owl Project

VOLUNTEERS, SCIENCE, COMMUNITY

The Powerful Owl Project is a national program that has been running for 11 years across south-east Queensland (SEQ) and greater Sydney. The project has advanced our understanding of Powerful Owls and has enabled thousands of people to connect with this magnificent bird.

Despite their large size, Powerful Owls can easily go undetected. They roost during the day along creeklines sheltering in quiet, cool, shady areas where they can sleep. During the night, they set out to hunt.

The forest floor under their daytime roosts is often smelly and littered with droppings and remains of their prey. All owls eat their prey either whole or in chunks. The indigestible bits like bone, feathers and fur are regurgitated in gherkin-shaped lumps called owl pellets. Project volunteers have sorted through hundreds of Powerful Owl pellets to help determine what the owls are eating. In SEQ, their main prey are possums, gliders, flying foxes and some birds like Rainbow Lorikeets.

The Powerful Owl Project in SEQ has been successful because of committed volunteers like Nick, Lucy, Brett and Kev who collectively spend about 650 hours a year surveying owls. They have watched owl pairs successfully breed and raise chicks, and they have watched adult owls pass away and fledglings fail to leave the nest.

In 2025, volunteers monitored 18 active nest sites, which produced a total of 23 fledglings. Unfortunately, no nesting occurred at several well-known breeding sites in Brisbane and Toowoomba. This is possibly due to the high levels of visitation by photographers and dog walkers the previous year.

The limiting resource for Powerful Owls in SEQ is not food or daytime shelter sites, it is old-growth trees with large hollows. It is in these hollows that owls breed. We lost a couple of known owl breeding trees in Cyclone Alfred last year, which is why every old-growth tree with hollows, alive or dead, is priceless. There is positive news from the Greater Sydney region where a pair of Powerful Owl successfully bred in a nest box. Hopefully, nest boxes for Powerful Owls will be further deployed in habitats where natural hollows are low in number or absent.

An ongoing concern for Powerful Owls in Australia is the continued supply and use of certain rodenticides that kill owls and other birds of prey. The 'bad' rodenticides are called second-generation anticoagulant rodenticides (SGARs) and are readily available at supermarkets and hardware shops despite being banned in the USA, Canada and EU because of their harm to wildlife. Rats and mice that eat rodenticides are weakened and are easy prey for owls. Unfortunately, if an owl eats a poisoned rodent, it too can die from the poison. The Birdlife Australia website lists all 'good' and 'bad' rodenticides available in Australia. Please try not to buy or use SGARs.

We are always looking for more volunteers to join this project. All training will be provided. To find out more or register to become a volunteer, visit the Powerful Owl Project page at birdlife.org.au or contact Andrew Dinwoodie at Birdlife Australia on powerfulowl-brisbane@birdlife.org.au or 0455 876 237.

Powerful Owl female emerging from a nest on dusk (top) and a juvenile Powerful Owl with parent. Photos by Dr Nick Hamilton (Flickr @interestedbystandr).