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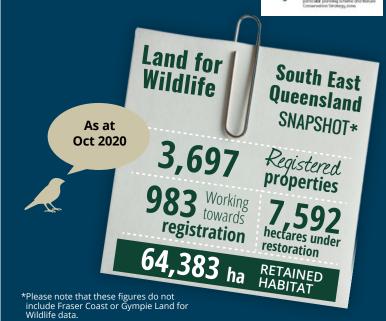
### NEW LANDHOLDER PROGRAMS **FOR IPSWICH**

With strong engagement from the community, Ipswich City Council recently finalised a review of their Landholder Conservation Partnerships Program.

Ipswich LfW members will have access to property management plans and improved incentives to help with their conservation work. Habitat Gardens will offer more networking opportunities for its urban members, and a new Conservation Covenant program is being established for high conservation value properties.

For more information, contact either Dani or Stephani at Ipswich City Council (details to left) or go to www.ipswich.qld.gov.au

Landholder Conservation Partnerships Program



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

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Front Cover: A calling Bleating Treefrog (*Litoria dentata*) photographed at an ephemeral wetland on the Gold Coast. Photo by Todd Burrows.

Front Cover Inset Photos (L-R): Pied Stilt and Sharp-tailed Sandpipers on an ephemeral wetland in Redcliffe and a Lloyd's Native Olive (Notalaea lloydii). Photos by Deborah Metters.





### Welcome to the november 2020 Issue

Bear with me while I initially chat about whales. Not your usual LfW topic. Recently while camping with friends on Minjerribah (North Stradbroke Island), we watched in awe as a pod of whales moved southward on their annual summer migration. A pair were breaching. Right out of the water. Leap after leap. We counted 14 breaches in a row. It was incredible.

It spurred us to think about environmental success stories. We weren't overwhelmed with options but came up with some local ones – bringing back the Richmond Birdwing butterfly, declaration of K'Gari (Fraser Island) as a National Park and some global ones like banning CFCs to protect the ozone layer and, of course, the return of Humpback Whales.

There are seven populations of Humpback Whales in the southern hemisphere. It was estimated that the population along the east Australian seaboard was down to 100 individuals after the ravages of whaling, which ceased in the 1960s. Remarkably, this population has recovered close to pre-whaling numbers of around 8000 individuals.

Until recently, Humpback Whales held the world record for the longest known mammal migration in the world - a staggering 16,400km round trip. This record was recently surpassed by a Gray Whale, which travelled over 22,000km during one migration cycle. It is truly astonishing the distances covered by migrating wildlife. Here in SEQ, every summer, we are witness to remarkable avian migrations. Shorebirds return from their Alaskan and Siberian breeding grounds to feed on Moreton Bay mudflats. While stormbirds (Channel-billed Cuckoos and Common Koels) return noisily to our skies from Asia to lay their eggs in nests of crows, friarbirds, magpie-larks and other unsuspecting hosts.

The revival of the humpback shows us that if nature is allowed to recover, it will. Sometimes it takes just one brave decision to turn the tide.

Many LfWSEQ members make brave decisions about their properties. Decisions to de-stock or reduce stocking rates. Decisions to fence off waterways and reinstate trees along a creek. Decisions to re-establish Indigenous cultural burning regimes. Decisions not to sub-divide but instead to place a conservation covenant on the land title. Decisions to leave

### **EDITORIAL**

standing dead trees. Decisions to start a decade long process of controlling Cat's Claw Creeper to restore an ecosystem. Decisions to let native grasses flourish and set seed. Some are remarkable decisions made courageously against a backdrop of ridicule, development and profit.

LfWSEQ has always aimed to inspire, support and bring together landholders. Hopefully, some of the stories you read in this newsletter convey the complex decisions made by landholders and show that positive conservation stories are all around us.

It looks like it might be a good summer to plant trees, keep the gutters clean and enjoy some rain. Stay safe and thanks for all the conservation work you do.

Deborah Metters Land for Wildlife Regional Coordinator

We welcome all contributions.

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# Climate & Weather REGIONAL OUTLOOK

### Oct-Dec 2020

**Daytime & Night Temperatures.** Very likely that daytime and nighttime temperatures will be warmer than average for eastern Australia during Oct-Dec.



**Rainfall.** Wetter than average conditions are likely across eastern Australia.



**Streamflow.** Median to low streamflows are most likely for Sept-Nov.



**La Niña.** The Bureau of Meteorology has announced that a La Niña is underway. A La Niña forms when the eastern Pacific Ocean is cooler than normal leading to stronger east-to-west trade winds across the Pacific Ocean. A La Niña brings cooler than average temperatures with more cloudiness and rain to eastern Australia.

### **Influences**

- Indian Ocean Dipole (IOD) negative resulting in possible above average winter-spring rainfall in southern Australia.
- El Niño-Southern Oscillation (ENSO) A La Niña is underway.
- Australia's climate has warmed by ~1.4°C since 1910.

#### Sources

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

### Weeds to Watch Oct-Dec 2020

Ochna generally flowers in spring. Try to control it before it sets seed. Due to its taproot, Ochna is difficult to hand remove or to kill with glyphosate. Chat to your LfW Officer about the right herbicide mix.



Moth Vine usually produces a mass of white tubular flowers during spring. Control is similar to Dutchman's Pipe - hand remove small plants or cut, scrape and paint with suitable herbicide.









few years ago, after a dry spell I found a desiccated frog skeleton in my rain gauge. I was amazed that the frog could even enter the 8mm wide funnel and I presumed that due to the internal configuration of the gauge it was unable to get out.

When it rained in February this year, I found a live Bleating Treefrog (*Litoria dentata*) in that same rain gauge. So I decided to remove this frog and place it in the nearest vegetation about ten metres away. After rain that night, the frog was back in the gauge. So I took the frog and placed it about 20m further from the gauge. In two days it was back. At least I presume it was the same frog. I took the frog about 30m away, and you guessed it, three days later it returned.

I thought this might be worthy of a story and further experimentation so I took the frog into custody to photograph it. Whilst setting up a background for a photoshoot on a verandah away from the gauge it jumped away and disappeared. Thereafter I checked the gauge daily but found no frog. A few weeks later, after a dry spell, it rained and a Bleating Treefrog again appeared in the gauge. I tried the 20m removal process but next morning there were two Bleating Treefrogs! I again did the 20m removal but both were back the next day.

I wondered what attracts a treefrog in wet weather to a rain gauge across 10m of bare ground especially as there is plenty of suitable vegetation nearby albeit no accessible water. So, I placed some open-ended pipes on the gauge support (top right photo) to see if this would prevent the frogs entering the gauge and unwittingly dying.

Next morning, the two culprits were in the rain gauge ignoring the new habitat provided. I took them both 46m away and whilst releasing them I inadvertently separated them, one on the ground and the other in a tree. However, two days later both were back in the rain-gauge! My next solution was to place a flat piece of wire gauze loosely in the 8mm funnel. Next day, the two were inside the gauge. So, I then rolled the gauze and jammed it into the funnel hole which has solved the problem to date.

I am unsure what it will do to the accuracy of recording especially because the adjacent triangular rain gauge never records the same amount as the standard gauge.

The frogs have not used the open ended pipes so I closed the end of a vertical one and put some water in the bottom. So far, over wet and dry days, this has not attracted any frog, so it does not appear that moisture is the critical factor.

I visited my son at Samford and mentioned this story and he said he has had periodically a frog in his similar rain gauge but only when it rains. On inspection it was a Bleating Treefrog. The difference however was that the top of his gauge had an additional sizeable hole enabling the frog to escape.

Experience of this saga suggests that it would be good if people would check such gauges a few days into a dry spell to see if a frog is trapped. The questions remain as to what exactly is the attraction of such a gauge, and have other people experience of such 'homing' behaviour. Thanks to our resident expert Gordon Grigg for confirming frog ID and behaviour.

Article and photos by Gordon Wilkinson Land for Wildlife member Brookfield, Brisbane





Green-thighed Frogs generally only call and breed for one day of the year after heavy rainfall.

decided to go in search of a frog that I had never before seen. Green-thighed Frogs (*Litoria brevipalmata*) are a strange species. They are treefrogs that spend much of their time hidden in low shrubbery and leaf litter. They are easiest to find when they are calling, but they very rarely do this.

For a long time, the species was considered very rare because few people ever found them. Then, a study in 2006 discovered that this frog normally calls (and breeds) for one day a year, and some years not at all! Heavy rain (at least 50mm in a 24-hour period) is apparently required to stimulate breeding activity, which is something we hadn't had for a long time. What's more, if you don't go looking on the precise day the rain falls, chances are you'll miss the narrow calling window.

I had read that there was a population of Green-thighed Frogs inhabiting the Pine Mountain Bushland Reserve close to my home. So that's where I headed in February 2020 following the biggest storm since 2018. The noise from the frogs was ear-splitting, and I'll never do that again without ear plugs! Most of the noise came from Graceful Treefrogs (*Litoria gracilienta*), Bleating Treefrogs (*Litoria dentata*) and Green Tree-frogs (*Litoria caerulea*), all species we get at home when the dam fills with water.

There were also a few Desert Treefrogs (*Litoria rubella*) and plenty of Scarlet-sided Pobblebonks (*Limnodynastes terraereginae*) in the reserve, a species we are very familiar with at home.

Despite all these other distractions, it wasn't long before I found my target. They have not been well-named, as they are more yellow than green. Also, the bright lips, throat and sides are far more striking than the (mostly concealed) hind legs. All in all they are a pretty frog.

Green-thighed Frogs ended up being one of the most numerous species present, although not as loud as their neighbours. Curiously, they were only found in one of the three ponds within the reserve. They are obviously particular about their habitat requirements. Their favoured pond had a much denser ground-layer of debris and shrubbery than the other two ponds. I wonder how isolated this little population is, and whether more populations are scattered throughout the many privately owned dams and ponds in Pine Mountain. It's up to local residents to get out there after heavy downpours to find out!

I feel privileged to have been able to share their one day of song for 2020.

Article and photos by Chris Wiley Land for Wildlife member Pine Mountain, Ipswich







Bleating Treefrogs (top) and Desert Treefrogs (above) look superficially similar but have very different calls. Bleating Treefrogs also have characteristic dark blotches down their back.

Only male frogs calls, and they do this to attract a mate. Here is a Graceful Treefrog calling (far left).

To the left is a Scarlet-sided Pobblebonk - a native frog that can be sometimes confused with the introduced Cane Toad.



ephemeral (e-FEM-uh-rhl) lasting for a short time. Black-necked Storks are one of the largest and most impressive wetland birds. They hunt for frogs, reptiles and any other small animals found within ephemeral wetlands.

eterological forecasts suggest that we are probably heading into a wet (La Niña) summer, so I wanted to raise the profile of an often-overlooked ecosystem, ephemeral wetlands. These are wetlands that have been formed from depressions in the ground that temporarily hold water after substantial rain events and dry out periodically. They are usually isolated without permanent inlets or outlets but can overflow during heavy periods of rain. Some are perched on bed rock and clay soils, while on sandy soils they are effectively windows into an underground water table.

By their very nature, ephemeral wetlands are highly dynamic ecosystems with rising and falling water levels creating feeding and breeding opportunities for a diverse variety of fauna. Periods of drying limit the ability of fish to establish and therefore create ideal breeding habitats for frogs and invertebrates with the reduced competition and predation. The native vegetation within ephemeral wetlands tends to be tolerant of flooding and drying, although aquatic plants that flourish in wetter periods die off without water with some species surviving in the seed bank until water returns.

In south-east Queensland it is generally late spring or summer rains that fill these wetlands, triggering breeding events for frogs, which thrive in wet and warm conditions. They emerge from underground burrows, tree hollows and other places of refuge in which they sought shelter. It can be quite an event to experience male frogs of various species calling simultaneously to attract mates. Treefrogs like the Graceful Treefrog, Laughing Treefrog and Eastern Sedgefrog call from vantage points on vegetation, while burrowing frogs including the Ornate Burrowing Frog and Scarlet-sided Pobblebonk call from the water surface. The Striped Rocketfrog and Green-thighed Frog tend to call from the water's edge or on floating debris.

The species mix of a particular wetland is usually dependent on the elevation, vegetation and pH of the water. Some species like the Wallum Sedgefrog, Wallum Rocketfrog and Wallum Froglet are specialised for life in the acidic waters of coastal lowland wetlands.



Spotless Crakes take advantage of the invertebrates that abound in ephemeral wetlands, especially when there are exposed muddy edges.



Royal Spoonbills will move into ephemeral wetlands when there is enough water for them to swipe their bills through the water to feed.



The male Ornate Burrowing Frog (*Platyplectrum ornatum*) often calls from the water's surface.

Filled ephemeral wetlands quickly become breeding and foraging habitat for dragonflies, damselflies, water beetles, water bugs and many other invertebrates. One of the most impressive is the Giant Water Bug, measuring up to 70mm in length. It is capable of taking large prey items, with its needle pointed forearms and powerful rostrum, including frogs and their tadpoles. Dragonflies and damselflies are like the raptors of the insect world, acrobatically taking prey on the wing. They often have showy colours and descriptive names like Aurora Bluetail, Common Flatwing, Australian Emperor, Scarlet Percher, Fiery Skimmer and Graphic Flutterer.

Where there are frogs and invertebrates thriving, you will also find higher order predators like reptiles, birds and mammals taking advantage of the good times. Snakes like the Keelback, Roughscaled Snake, Marsh Snake and Red-bellied Black Snake have a taste for frogs. The Keelback readily takes to the water in search of prey. Secretive birds like the Spotless Crake, Lewin's Rail and Australian Little Bittern mainly stay hidden, catching prey amongst dense reeds and rushes along with grassbirds, reed-warblers and cisticolas. The Water Rat or Rakali is Australia's largest rodent and with its partially webbed hind feet and dense water-resistant fur, it is well at home in ephemeral wetlands.

Fauna activity is often most noticeable when ephemeral wetlands are drying out and aquatic prey becomes concentrated. Birds like the Royal Spoonbill, Little Egret, Glossy Ibis and Black-necked Stork move into wetlands during these times to take advantage of the feast. Exposed mud and shallow water can provide habitat for migratory shorebirds like Latham's Snipe and Sharp-tailed and Marsh Sandpiper, along with resident Pied Stilt, Black-fronted and Red-kneed Dotterel or even the endangered Australian Painted



The Giant Water Bug predates on small wetland invertebrates such as tadpoles, spiders and dragonfly larvae with its needle pointed forearms and piercing mouthparts (rostrum).



The male Graceful Treefrog (Litoria gracilenta) often calls from a vantage point within the vegetation around a wetland.

Snipe. Flying insects emerging from the water also offer food for swallows, woodswallows, martins and swifts. Throw in a few raptors like the White-bellied Sea-eagle, Swamp Harrier, Whistling Kite and Australian Hobby and everyone else has to watch their back against an opportunistic attack.

Once the water evaporates and the mud dries, much of the life seems to disappear from ephemeral wetlands. But regardless of their size or how often they fill, they are valuable habitat for fauna and flora. When dry this value may not be immediately obvious but it's amazing what happens when you just add water.

### Article and photos by Todd Burrows Land for Wildlife Officer City of Gold Coast





The Fiery Skimmer (top) and Graphic Flutterer (above) are just two of the numerous species of dragonflies that call ephemeral wetlands home.



It seems that with every new hobby, sport or interest we take up, we are reminded of how little we actually know about things. When Jo and I moved onto our little triangle of land five years ago, we possessed an odd mix of big expectations and little knowledge. But that didn't stop us. We leapt into habitat rehabilitation with both eyes closed and our hearts wide open.

The sheer diversity of life on our little oasis is stunning. We are regularly visited by more than 90 different species, including Glossy Black-Cockatoos and an incredible variety of frogs. When we first heard the mating Koalas outside our bedroom window, we thought we had somehow stepped into a sci-fi horror movie. Now we know what animal makes that sound - something between a pig's oink and a donkey's bray - it's music to our ears, and something we very much look forward to.

I would list the birds that we have seen over the past few years, but frankly, it would take up too much space. Honeyeaters, finches, parrots, doves, pigeons and raptors all make daily appearances. And where there are birds and frogs, you'll naturally find snakes. We regularly garden with them. Little brownies (and some not so little), Red-bellied Black and Green Tree Snakes, Yellow-faced Whips and our beloved pythons, who often make themselves at home on the verandah.

With clearing on surrounding properties becoming an issue, we pledged to provide our wild friends with something better, and that was where the learning really started.

We had relocated from Brisbane's inner suburbs, where weeds were something you squashed with the toe of your shoe, to Ocean View, where the weeds had experience with combat, and were prepared to take no prisoners. Our first attempts at clearing a few Lantana plants resulted in hundreds of new shoots, which regrew from the stems that we had discarded in the dirt. We poked eyes, tore clothing and scraped our arms to the point that friends began to question our sanity.

We still have not beaten the Lantana back, choosing instead to remove it bit by bit, and to retain the pioneer species that are loitering beneath it, just waiting for their chance at the sunshine. It's a slow process, made even slower by the rate at which the weeds grow after rain, and perhaps by the fact that, each and every year, we get a little older and a little slower.

Our planting regime was similarly disorganised at the start. We came to the property with 400 trees in pots, and foolishly began planting them in every corner of the property, which doubled the work needed to keep them watered and maintained. By the time we had 1200 plants in the ground, we had begun to get wise, and these days we choose a specific area, we clear it, we plant it and we water it until we can move on to the next.

We made mistakes with the most basic ingredient: dirt. Initially, we were able to get hold of some composted goat's poo, and it turned out to be an excellent planting medium. But when that ran out, we discovered what we thought would be the answer to our prayers: coir blocks. Yes, they were expensive (~\$1000 spent), but the thought of a juicy, organic 'growing medium' sustaining our trees through the dry times was just too much to pass up.

We set about planting everything in a half and half mix of coir and soil, our first project being 40 Lemon-scented Tea-trees that were to become our living fence. The trees were six inches high when we planted them, and now, four years later, they are around a foot high. Disappointing. Every tree that got the coir treatment has performed less than satisfactorily, with many simply falling over, as their roots find no purchase during windy weather. It seems that the coir, when it dries out, reverts back to its original, coconut-fur state. Trees don't like it, so neither do we.

I'm sure many readers know about the challenges of gardening on a steep slope. With most of our land at a 15% gradient, the gardening day often feels like a crossfit workout, particularly when we are wearing our 'anti-tick' armour and heavy, snake-

bite proof boots in the middle of summer. We often joke that we must be more than a little mad.

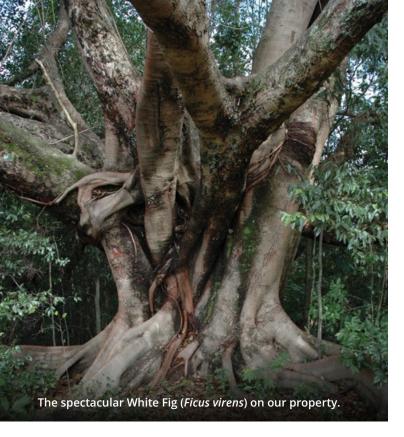
So why? Why do we do it, given the challenges and disappointments that we face on our journey? You know as well as I do. The answer is right outside your door, and mine. It's there after every spring rain, when the tips of the trees and bushes burst forth with their bright green or rubyred new growth. It's there in the flowers on the grevillea that drip with tasty nectar and have the New Holland Honeyeaters swarming from dawn to dusk. It's the sound of thousands upon thousands of bees enjoying the Tallowwood flowers, high above you. It's the resident wallabies who, once they've finished 'pruning' your shrubs for you, will lounge back on the grass and enjoy the afternoon shade from those flame trees or Davidsons Plums that you planted a few years back.

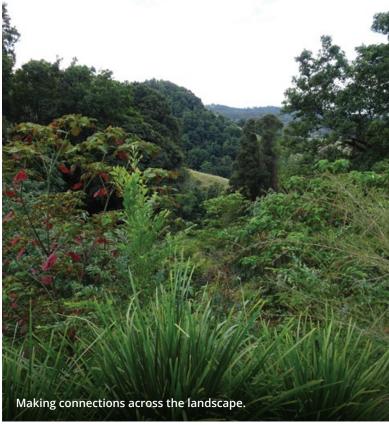
The answer is this: it is the unrivalled joy that you feel when you stand on your land, look around you and realise that the world has been made a better place thanks to your efforts.

It's a labour of love, quite simply, and what a labour. But what a love.

Article and photos by Andy McLean Land for Wildlife member Ocean View, Moreton Bay







# ECOLOGY, Community and Restoration

e purchased our property at Hunchy on the Sunshine Coast in 1990 but did not move here from interstate until 1997. Like typical absentee owner properties, the weeds grew and neighbourhood cattle grazed on patches of 'free' grass.

An early settler's map from 1895 of our property noted 'vine scrub' and an area of good loam soil. I'm not sure where the soil went but probably down a creek! Other early surveyor's maps noted extreme rugged country and dense vine scrub (1900) and an area of dense Lantana (1921). At this time the main occupation in Hunchy was dairying but clearly Lantana had already taken hold. Over time, the valley was almost totally cleared for small crops (vegetables), dairying, bananas and fruit trees. These days beef cattle graze on some properties.

We initially thought that the original vegetation for the area was dry vine forest, but we now know that the original vegetation, or ecological community, was rainforest. It is officially titled Lowland Rainforest of Subtropical Australia. This ecological community is found on the basalt and alluvium of north-east NSW and South East Queensland. It is also defined by altitude and rainfall. First Nations people of the Sunshine Coast managed these rainforests and depended on them for fibre, food and medicine.

Lowland subtropical rainforest contains diverse tree flora, buttresses and an abundance and diversity of vines plus a sparse understorey.

Anecdotally the early cedar cutters referred to Hunchy as Bastard Scrub. Some Red Cedars can still be found and could well be seedlings from the original trees. Figs abound, mostly *Ficus virens*, *Ficus fraseri* and *Ficus coronata*. On our property, we are the lucky custodians of a magnificent *Ficus virens* under which our neighbour occasionally sheltered with her horse about 70 years ago on the way to the one room, single teacher Hunchy School, built in 1924 and now our community centre. Thanks to the figs, our property is becoming a haven for the frugivores, particularly pigeons/doves. A high proportion of frugivorous birds is a characteristic of this ecological community.

Once we moved to our property, we commenced our long-term revegetation and rehabilitation program and joined Land for Wildlife. Almost all of the listed canopy, sub-canopy and understorey species for this vegetation type have been planted. Some were already present. A few apparent remnant trees grew in deep gullies but could equally be regrowth. Our Land for Wildlife Officers and Barung Landcare supplied advice and plants. Maximising diversity has been a consistent aim. Level areas are scarce, and we have found over time that the water holding capacity of our soil varies greatly with the terrain and the extent of past colluvial slips.

Our diverse plantings supply nectar, fruit, seeds and plenty of insects for most birds listed for this ecological community. As weather patterns change with global warming, we are looking north beyond the Blackall Range to drier areas for species selection as anything we plant now will outlast us by many years.

Many of our neighbours are also undertaking revegetation projects to the extent that the upper part of our valley is clearly becoming re-forested. Wildlife corridors have been established, particularly along creek and gully lines and are expanding. It won't be the original ecosystem, but it seems the present wildlife generation is not concerned. We compare notes about the birds in our patches, both permanent and migratory and where the wallabies are feeding. A female Regent Bowerbird recently bathed so vigorously in one of our water dishes that she just about emptied it.

Near vertical slip faces are still clothed in Lantana but with *Ficus virens* planted on top and revegetation by our neighbour below, it will eventually be shaded out. Our social community is also a community of tree-planters as are others across the Blackall Range. We're not quite finished but natural regeneration is playing its part and older cleared areas are almost unrecognisable. It has been a very rewarding journey.

Article and photos by Joan Dillon Land for Wildlife member Hunchy, Sunshine Coast



Commelina lanceolata - The name Commelina was given to this group of plants by Linnaeus in honour of two Dutch botanists, Jan Commelin and his nephew Caspar Commelin. The plant used by Linnaeus to first describe this genus was Commelina communis, which has two large showy petals while the third is inconspicuous. Apparently, Linnaeus wrote, "Commelina has flowers with three petals, two of which are showy, while the third is not conspicuous, from the two botanists named Commelin, for the third died before accomplishing anything in botany." In a back-handed compliment to the Commelin family, the inconspicuous third petal referred to Jan Commelin's brother who was a bookseller and newspaper publisher.



Podargus ocellatus, or the 'lazy-footed bird with eyespots' refers to the Marbled Frogmouth's habit of leaning forward when roosting making them appear weak-footed. They belong to the order Caprimulgiformes which refers to the myth that the large-mouthed (mulgiformes) birds of this group suckled on goats (capri). Photo by Michael Daley.



Banana Bush (Tabernaemontana pandacaqui) fruit and flowers. Tabernaemontana translates as 'tavern in the mountains' in Latin, in honour of Jacob Theodore, physician and early botanist, who lived in Bergzabern - a town in the mountains of Germany. Pandacagui (pan-da-kack-whee) is the Filipino name for this plant as it was first described in the Philippines.

irst, I am going to indulge in a bit of reminiscing... I'm twelve years old and on a day walk in the rainforest of Lamington National Park with my Dad and some of his friends. It's late in the day and the light is starting to fail, I've pushed on ahead because they talk too much and walk too slow. Suddenly, the shadows hold all sorts of imagined horrors, the strange calls of birds and rustlings in the heavy undergrowth seem malicious. I turn and run as if every nightmare I had ever dreamed had sprung from the trunks of the strangler figs and ferny undergrowth...

Jump forward to more recent times and I'm on another walk, this time in rainforest of the Blackall Range with a group of committed plant geeks. As we walk the group is sharing their observations of the plants and animals we see and hear, "Check out the size of that Eucalyptus grandis" and "Hey look, Erythrina seeds". Sometimes just the name of the plant or animal is mumbled as we pass and to a casual eavesdropper it could sound like nonsense, but the reality is that it's more like a greeting, as if walking down the street in a small town. It's the equivalent of a "G'day Nick" or "How's it going Deb" to a familiar face. For me, knowing the names of our wildlife has meant that the wild places that were fearful places full of hostile nature are instead familiar comforting places full of old friends.

A part of my job that gives me great satisfaction is helping people discover the names of the plants, animals and fungi that live around us. However, I find that many people are just interested in the common name and I can appreciate why when so many names seem impossible to pronounce, remember or even spell. You could argue that knowing the scientific name for a Marbled Frogmouth makes no difference to either the bird or the human but I would like to try to convince you that it's worth learning not just common names, but the scientific and local Indigenous names (where known) as well.

There are a few techniques you can employ to help you remember scientific names. One of the easiest memory aides is to use rhyme or nonsense, for example the delicate rainforest grass Oplismenus becomes 'hopeless menace' despite being anything but. Or there is my personal favourite, the tavern in the mountains where pandas serve daiguiris – Tabernaemontana pandacaqui. A variation on this that has recently been shared with me by a landholder is the use of song lyrics, as in Psycho-tria daphnoi-des sung to the tune of Psychokiller by Talking Heads.

While this may help you remember the name there is a much richer world of understanding once you start learning what the names mean. Many names are descriptive of the organism and so are a great assistance in identification. They often use Latinised terms that may already be familiar to you like folia which refers to the leaves of a plant while others, like xylon, which means wood, may not be so familiar. You will find that the more you use them



Pandorea refers to the Greek myth of Pandora's Box which results in the release of sickness, death and other evils with only hope remaining. Assumingly, this genus name was given due to the tight packed nature of the winged seeds which burst forth when the pod matures and splits open. Shown here are seedpods of Pandorea pandorana (Wonga Vine). Photo by Sydney Oats, Flickr, CCBY.



Some scientific names make reference to myths, legends or gods such as Sterculia quadrifida (Peanut Tree) is named for the roman God of Odour or God of Manure, Stercuquilinus, due to the unpleasant fragrance of the flowers in some plants in this genus. Quadrifida means 'four splits' as the outer part of the flower (calyx) splits into four parts. Photo by Tatiana Gerus, Tatters Flickr, CCBY-SA.



Auricularia cornea (Pacific Cloud Ear Fungus) translates to ear (auricularia) covering (cornea). They feel soft and tactile, just like touching an ear.



Melaleuca quinquenervia refers to the black (melanos) burnt trunks and the white (leucos) branches characteristic of paperbark forests. A key diagnostic feature are the five (quinque) veined (nervus) leaves. Di'bing (Gubbi Gubbi).

the more familiar they become and you will notice them used in other names. I now feel very fortunate to have had a primary school teacher who thought that Latin should still be taught in school for the familiarity that I now feel for the Latin and Ancient Greek that makes up many of the scientific names.

Scientific names also commonly make reference to places, people, mythology, and languages. If you have the time and an inquiring mind a little bit of research on the internet or with a reference book can lead you to some remarkable places. For example, the common local native ginger belongs to the genus Alpinia, which was named for Prospero Alpino (1553-1617), a Venetian physician and botanist, by Carolus Linnaeus. Alpino's writings include the oldest scientific descriptions of coffee, banana, date palm pollination and the sexual differences in plants. Linnaeus (1707-1778), a Swedish naturalist and physician used these observations, along with many others, in his development of a binomial (two-name) classification system for naming all living creatures. This is the same system that we still use today.

Another useful technique, if you know the name, is to use it whenever you notice the organism. Use all your senses (except maybe taste) to explore different aspects of the plant, animal or fungi and then whenever you notice it, say its name. If in public you may want to do this quietly or in your head otherwise you will start to get funny looks.

Finally, try building a story around it or weave it into an experience, that way the organism becomes part of your personal narrative and much easier to remember.

I'll finish with a story of yet another bushwalk, this one with my kids. It has been a long walk and there is still quite a way to go, so in an effort to distract from tired legs I point out a dead branch sprouting a myriad of ear-shaped fungus. "Touch them and tell me what they feel like", I say.

"Ears! What are they called Dad?"

"Auricularia cornea, which means ear-like with a tough covering", I reply.

Tired legs forgotten, the rest of the walk was taken up with inventing Latin names for things. My kids still remember the name of the cloud ear fungus.

The other aspect of scientific names that many people find difficult is the pronunciation. There are entire books written on the subject and there will be exceptions but here's some simple

- ae and oe are treated as the letter E either pronounced long as in me (Banksia aemula) or short as in met (Haemodorum)
- ch is pronounced as a hard K (Christella)
- ii is pronounced ee-eye (Acmena smithii)
- most vowels and "y" are pronounced short (Polygala)
- if it incorporates a persons name, pronounce the name and then the suffix. Guioa is named for the Spanish botanical artist Jose Guio so therefore is pronounced ghee-Oh-ah

Don't fret if you pronounce things differently, if you have been understood then you have communicated effectively.

### References & Further Reading

Lederer RJ & Burr C (2014) Latin for Birdwatchers: Over 3,000 scientific bird names explored and explained. Timber Press.

Pavord A (2005) The Naming of Names: The Search for Order in the World of Plants. Bloomsbury.

Perrin D (1988) Dictionary of botanical names: Australian plant names, meaning, derivation & application. Redcliffe Education Centre.

www.australiangeographic.com.au

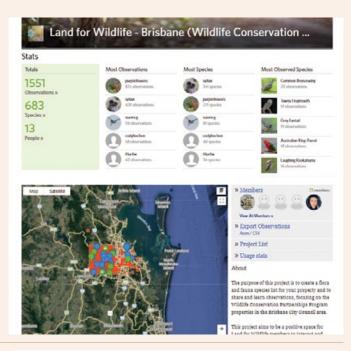
www.curioustaxonomy.net

www.noosasnativeplants.com.au



Article and uncredited photos by Alan Wynn Land for Wildlife Officer Sunshine Coast Council





# iNaturalist A SILVER LINING **IN 2020**

hen we first learned of coronavirus and how it might affect the way the Land for Wildlife program is delivered, we explored the use of iNaturalist (iNat) as another way of keeping in touch with our valued Land for Wildlife (LfW) members.

iNat allows users to upload observations of plants, animals and fungi for other users to identify. Once confirmed by two or more users, observations are automatically uploaded to the Atlas of Living Australia database to contribute to scientific records. From a LfW perspective, what makes iNat even more useful, is the ability to create projects that are exclusive to its members. This allows for the following benefits:

- Using the journal feature on the iNat project page, councils can keep LfW members up to date with useful resources, articles, workshops and events.
- It provides an accurate representation of the ecological diversity across LfW properties.
- It helps landholders create a comprehensive species list for their LfW properties.
- It provides LfW members with the ability to connect with other LfW members in their council area through the iNat messaging

Due to these benefits, a number of councils including Brisbane, Gold Coast, Ipswich, Logan and Sunshine Coast have set up their own iNat projects for LfW members in their regions. Being just a few months in and with only 63 members participating so far, we are already seeing some impressive data across the five councils. A total of 1,459 species have been recorded from 4565 observations. This is comprised of the following grouping of species: 615 plants, 447 insects, 173 birds, 53 spiders, 42 fungi and lichen, 36 reptiles, 33 mammals, 30 fish and 15 frogs. Note

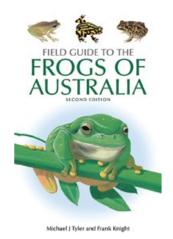


that this data includes both 'research grade' (i.e. identification confirmed by two or more iNat users) and 'needs ID' observations.

What has been especially encouraging is the large number of Koala and Glossy Black-Cockatoo observations with 39 and 40 observations respectively. These are observations that may not have been reported as regularly in the past but, with iNat being so easy to use, they may be getting submitted more consistently when seen. Uploading observations of rare and threatened species, such as these, whenever sightings occur, helps to ensure the survival of these species.

Even when, or if, things return to normal, the data above, and the positive responses received, indicate that iNat will continue to be a useful tool for the Land for Wildlife program, particularly as more and more members participate. To check out the Land for Wildlife iNat projects, visit www.inaturalist.org and search "Land for Wildlife". The council projects will appear at the top of the search results. Or, if you are a Land for Wildlife member in Logan, Ipswich, Gold Coast, Brisbane or Sunshine Coast and you would like to get involved, please get in touch with your local Land for Wildlife officer.

Article and photos by Nick Swanson Land for Wildlife Officer **Logan City Council** 



Paperback | Mar 2020 | \$49.99 **Colour illustrations** 208 pgs | CSIRO Publishing

# Field Guide to the Frogs of Australia

### **Michael Tyler and Frank Knight**

The first edition of this field guide was released over a decade ago. Since then, 11 new species of frog have been discovered and are included in this new edition. Frogs are one of the few vertebrate groups in Australia whereby new species to science are still being found. It is an exciting area of research luring herpetologists to remote parts of this country.

This book is the go-to field guide for Australian frogs. In keeping with the first edition, all images are hand drawn by Frank Knight. There are excellent photographic guides for some states, including Queensland, but this book is the most comprehensive nationwide. Illustrations are often better than photographs in depicting frogs as they lack distractions of flash lighting, frog position and surrounding vegetation.

As a starting point, this book should help narrow down a frog's identification. If further images or

calls are needed to confirm ID, they are available via websites and Facebook frog ID groups.

The author calls for a national system to categorise common names for frogs, like the system for birds. The common name for each species in this book is meant to reflect recent vernacular, but some were a mystery to me. Personally, I think field guides benefit from listing all common names to engage more people.

It's a perfect time of the year to update your frog field guide, or to step into the world of frogs for the first time. Frogs offer us a reason to explore wetlands, creeks and dams at night. They introduce us to a nocturnal world filled with many other animals. Frogging is exciting and can give a truly memorable wildlife experience on a hot rainy night. Just don't forget your field guide.

**Review by Deborah Metters** 

# Caring for Australian Wildlife

It is the humblest of people who usually surprise and impress me the most. Land for Wildlife member, Sharon White, who is a dear friend and 'almost a neighbour' on a 5-acre block in Dundowran Beach, is one of those hidden gems.

I knew Sharon had been a wildlife carer before moving to Hervey Bay. What I did not know was that Sharon is a published author. Wildlife rehabilitation is a specialist subject requiring knowledge and accreditation. But, members of the public often find sick or injured critters that might need early intervention before an accredited carer can arrive. This book targets that audience and will have a broad readership for anyone with an interest in the environment. It is particularly relevant for Land for Wildlife members who are likely to come across sick or injured critters and care deeply about their fate.

Chapter 1 provides a succinct overview of wildlife ecology including useful tips on attracting wildlife to your property. Chapter 2 looks at the effects of humans in creating the problems our wildlife is facing. The rest of the book focuses on the practicalities and principles of wildlife care, including ethical issues and provides detailed guidance on rehabilitation for specific wildlife.

Wildlife rehabilitation may not be Land for Wildlife members' 'core business'. You cannot do 'everything' and the provision of suitable habitat in relatively good condition is vital. Land for Wildlife properties may be critical for critters' survival if they incur their injuries or sickness because of land clearing. Sadly, land clearing for development seems to be occurring on an industrial scale now on the Fraser Coast.

Congratulations Sharon on your outstanding achievement in producing this beautiful and valuable publication! I commend Sharon's book to you all.

Review by Vanessa Elwell-Gavins President, Wildlife Preservation Society of Qld, Fraser Coast

### **CARING FOR AUSTRALIAN WILDLIFE**



**Sharon White** Revised Edition

Paperback | 2020 | \$29.95 Colour photographs Self-published

Information, blogs and book sales at: caringforaustralianwildlife.com.au

I've been fortunate to have many years of experience in wildlife rescue, rehabilitation and release. We used to live in

Canungra and became Land for Wildlife members and planted heaps of native trees - especially Koala food trees. I developed a short course 'Caring for Wildlife' and was surprised to find the classes filled up each time they were advertised. The Caring for Australian Wildlife manual was initially published by Australian Geographic in 1997 and became the textbook for the course.

In 2011 we moved north to a wildlife-friendly property in Hervey Bay and once again became Land for Wildlife members. Our vine forest and freshwater lagoon provides a safe haven for native animals, and due to the nest-boxes we've installed - possums, gliders and insectivorous bats are regularly seen at night.

I was asked if I would consider doing an update of the book, especially with the on-going drought and horrific bushfires during 2019 and 2020. Initially I approached Australian Geographic, and eventually they allowed me to self-publish a revised edition in 2020. This edition provides the most up-to-date information on caring for our native fauna and provides a comprehensive overview of native animal rescue, rehabilitation and release.

**Sharon White** Land for Wildlife member **Dundowran Beach, Fraser Coast** 

# Leaves and seed pods Photos by Russell Cumming Flower spike (raceme). Photo by eyeweed, Flickr CC BY-NC-ND

Sophora fraseri (above images) can sometimes be confused with the weed Easter Cassia (below).



#### **References & Further Reading**

Leiper G, Glazebrook J, Cox D & Rathie K (2017) Mangroves to Mountains: A field guide to the native plants of south-east Queensland. Logan River Branch SGAP.

https://apps.des.gld.gov.au/species-search www.environment.gov.au/biodiversity/ threatened

www.environment.nsw.gov.au/ threatenedspeciesapp

www.flora.sa.gov.au

# Threatened Plants OF BRISBANE

he cute and colourful animals that are threatened around Brisbane are often widely publicised, but the lesser known plants don't receive much fanfare, and they are just as important. This article focusses on three threatened plants found on Land for Wildlife properties in Brisbane. Although they grow in other areas in south-east Queensland (SEQ), they have small and fragmented populations. With climate change and potential mismanagement, they could disappear off our radar without us even knowing.

In addition to these three species, there are many more listed plants and animals that occur on Land for Wildlife properties in Brisbane and across SEQ. I feel blessed to have uncovered these species and it gives me encouragement to see that they are being protected and embraced by property owners.

**Article by Cody Hochen** Land for Wildlife Officer **Brisbane City Council** 

### Brush Sophora (Sophora fraseri)

Listed as Vulnerable - federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC) and Queensland's Nature Conservation Act 1992 (NCA)

This is a sparsely branched shrub to two metres with bright pea-like yellow flowers which form on racemes (or long clusters/spikes). The leaves are alternate and pinnate with 21-35 ovate (rounded) leaflets. Like all plants in the Fabaceae family, Sophora fraseri has pods that are cylindrical to 10cm in length. Found on slopes in wet sclerophyll and rainforest margins from SEQ to northern NSW. In Brisbane it seems to be found in Regional Ecosystem (RE) 12.11.3/a and 12.11.5 under the canopy of eucalypts that are within the vicinity of dry rainforests.

Even though I have known about this plant for a while, I only stumbled across it about 18 months ago. My first discovery was the faint glimpse of bright yellow flowers beyond a patch of Lantana in an ephemeral gully at the back of Grandview Road, Upper Brookfield. To an untrained eye, the flowers and leaves look very similar to the exotic Easter Cassia (Senna pendula var. glabrata), but it was the wrong time of the year and I could see they were slightly brighter yellow and were in a different flower formation than the looka-like exotic version. Crashing through the Lantana I knew exactly what it was and quickly explained its importance and rarity to the property owner. We found another ten plants downstream, all flowering despite the drought-like conditions.

A few weeks later I came across another flowering Sophora fraseri on the top of a southerly facing slope in Spotted Gum

forest (RE 12.11.5) up the back of Upper Brookfield Road. Again, I explained the importance of the plant to the excited property owner. About a month later, I received a phone call from the property owner, asking that I must visit as soon as possible. About a week later we visited the same spot and, low and behold, I saw a sea of yellow beyond the one Sophora fraseri we found a month ago. The property owner had cleared Lantana, Climbing Asparagus and Ochna along a fence line further down the slope and uncovered dozens of Sophora fraseri up to 1.5m in height. Further clearing has uncovered dozens more plants on the slope. This plant has also been identified on a property in Pacey Road, Upper Brookfield and Savages Road, Brookfield.

If it wasn't for the flowers, I would have struggled to see both plants, so look out for its flowers from late winter through to late spring. A big threat to this plant is the misidentification of it with the exotic weed, Easter Cassia, and its subsequent removal. The flower spikes, smaller seed pods, peashaped flower, white/light green trunk, branches and leaflets are all different from that of Easter Cassia. It also usually flowers later than Easter Cassia, which flowers in autumn. If you are unsure or a plant's identification, please get a positive identification from your Land for Wildlife officer before you remove it.

Other threats to Sophora fraseri is competition from woody weeds, particularly Lantana which can dominate, smother and reduce light to native shrubs as well as increase fire fuel loads. The common practice of clearing or 'cleaning up' the shrub layer or grazing by livestock/ horses also threaten this species.

### Lloyd's Native Olive (Notalaea lloydii) Listed as Vulnerable under NCA

Within Brisbane, Notalaea lloydii grows in dry open eucalypt forests and ephemeral gullies to the west of the city. Like Sophora fraseri, Lloyd's Native Olive has a small range of ~120km, extending from Beaudesert to Somerset Dam and from Laidley to Upper Brookfield. Although scattered through these other areas, outer western Brisbane seems to be a stronghold for this species, on both private and public land. This shrub was named after my favourite botanist, Lloyd Bird, and my first experience with it was about 15 years ago while I was working for Ipswich City Council. We located a large shrub about 1.5m high on the edge of a fire trail in Flinders/Goolman Reserve.

Lloyd's Native Olive is a twiggy shrub that grows to 4m, although I haven't seen one taller than 2m. It has stiff, opposite, thin leaves up to 15cm in length and 7-10mm in width. It has small creamish flowers from autumn to winter with a round black fruit from 6-10mm that ripens in summer.

When I started working for Brisbane City Council, I soon realised that there was a stronghold of 'Lloydii's' in the outer western suburbs. Between two properties at the end of Grandview Road, Upper Brookfield there would be at least 100 plants on an easterly open eucalypt slope (RE 12.11.5 and 12.11.3a). Both properties have removed huge areas of Lantana over the past decade that were outcompeting the Lloydii. Lantana removal uncovered dozens of plants, allowing them to grow to their full potential, seed profusely, naturally regenerate and spread further. We have found another dozen or so plants on four other properties not far away from these strongholds. This plant is also found in smaller patches on the outer western suburbs of Brisbane with 17 specimens recorded from Land for Wildlife properties in Kholo (3), Mt Crosby (10) and Karana Downs (4). They are also found in a few council reserves and Moggill State Forest.

The remaining habitat of this species is highly fragmented making it extremely vulnerable to further habitat loss. Like Sophora fraseri, the biggest threats to Notalaea lloydii in Brisbane are competition from woody weeds, particularly Lantana as well as the clearing of understorey. Although more of an issue to larger conservation reserves and estates, inappropriate fire regimes are also a threat to this species as seedlings cannot withstand hot fires.



### Boonah Solanum (Solanum mentiens) Listed as Endangered under NCA

Local botanist, Andrew Wilson, stumbled across this prickly creeper whilst doing a flora survey on a Land for Wildlife property at Brookfield, which contains one of the last remaining remnant patches of notophyll vine forest in Brisbane.

In my opinion, Andrew's discovery is one of the more significant flora finds for our region. It is the first ever record of Solanum mentiens in Brisbane and the furthest northern record by a considerable margin. It is 1 of 5 natural populations ever recorded on Atlas of Living Australia, all within SEQ. Other locations include in scrub near Canungra, at the base of Mt French near Boonah, Bahr's Scrub near Beenleigh, and a small population near Wyaralong Dam and now Brookfield.

This endangered prostrate shrub lives in rocky dry vine forests. It has sparse prickles along the stems and the upper leaf veins. Leaves are alternate to 8cm and its lower leaf surface is white to grey. It has a white to mauve coloured flower to 25mm in spring/summer. Fruit is to 12mm and turns red when ripe.

On the Brookfield property, there are about 20-30 individual plants spread across a 20x20m patch of rocky notophyll vine scrub (RE 12.12.13) dominated by a large White Fig (Ficus virens).

Despite the recent drought and the competitive weed, Coral Berry (Rivina humilis), this population seems to be surviving and producing fruit. The biggest threat to Solanum mentiens at this site and to notophyll vine scrubs in general is the encroachment of the invasive vine, Cat's Claw Creeper. If left untreated, the weeds would no doubt outcompete and make Solanum mentiens extinct from this site and from Brisbane. Work is planned to carefully hand remove Coral Berry and control the encroaching Cat's Claw Creeper from around this site. Although extensive searching on adjacent properties has found no further records, it could potentially occur in undisturbed habitat in Moggill and Enoggera Creek catchments.





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## Currawongs

Whee-yoo, A wher-a-woo See you, Ah! Where are you?

Hide and seek in the treetops A strident peremptory call Whee-yoo, whee-yoo, whee-yoo, But no reply at all.

Often in the early morning The Umbrella Trees on the cliff Attract a Currawong "shin-dig" Which resembles a "go-the-biff"

But the one I heard while walking Was apparently alone Despite the plaintive "See you" There was no answering tone.

A lifetime lived as a pair
Accustomed one to "whee-yoo"
But circumstances change
And now it's just "Ah! Where are you?"

By Carmel Curro Land for Wildlife supporter



### Stormbirds Return

Every spring we are greeted by the calls of birds returning from their winter domains. It is always a delight to hear the raucous call of the Channel-billed Cuckoo or the repetitive echo of the Common Koel. Well, it is delightful the first time. It is quite a different story if a koel sets up shop in a tree near your house and decides to call at 1am, 2am, 3am etc... until dawn.

Both the channel-bills and the koels are referred to as 'stormbirds', as they are associated with tropical summers and storm season.

The Channel-billed Cuckoo is Australia's largest cuckoo. The female sneakily lays an egg or two in the nest of other large birds, usually a magpie, currawong or crow. Unlike other cuckoo species, a channel-bill chick won't kick out the host chicks, but instead it grows quicker and outcompetes the host chicks, which eventually starve. Channel-bill chicks need to grow fast as they must be strong enough to fly back to Indonesia and New Guinea in February/March.

While they are here in SEQ, they can be found feasting on ripe native figs and other fruit trees. Although they can look quite ridiculous eating tiny figs with their toucan-like beaks, it is a sight to see a flock of these birds make a meal of a fruiting tree. They clumsily flap and squabble to access the ripe fruit – leaving any traces of stealth or elegance to other birds.

Keep an eye and ear out for stormbirds this summer. They happily migrate every year with no need for passports, quarantine or border passes. They just need bushland with fruiting trees, and maybe a crow's nest or two.

Article and photos by Deborah Metters