



## Quarterly Update No 24 ... April 2021

Greetings to a welcome green autumn!

### ***Mistletoe: a keystone resource***

What are your thoughts about mistletoe? Many people regard the presence of any mistletoe as bad for trees! In fact, some people go to great lengths to "weed" out mistletoes, which they regard as a pest plant that destroys the host plant. In fact, mistletoes are worth their weight in...well...natural resources!



*Dendrophthoe gabrescens*. Photo by Martin Bennett.

Mistletoes have been described as "Engaged in a network of interdependencies with host plants, seed dispersers, pollinators and natural enemies, [and] are a group of highly interactive plants that have been proposed to represent keystone resources in forested ecosystems worldwide."<sup>1</sup> A keystone resource is one that has a disproportionately large impact on its ecosystem and its removal would "likely precipitate the loss of obligate and opportunistic users".<sup>2</sup>

Mistletoes contribute to bird diversity, provide food, nest and roost sites and perform a role in a number of ecosystem processes including nutrient dynamics,

understorey composition and canopy complexity and even affect fire behaviour and severity.

Mistletoes are ancient (30million year old fossil record), numerous (97 species) and their blossoms are diverse and beautiful. Underrated and unappreciated, they perform a very important role in sustaining our native biodiversity!<sup>3</sup>

### ***Redwood Park - home of the only Black-breasted Button-quail in the Toowoomba region?***

Redwood Park, which sits on the border of Toowoomba and Lockyer Valley regions, is a well-known and much loved bird watchers' and hikers' destination and also features low-key horse and mountain bike trails. The park is home to the threatened Black-breasted Button-quail (BBBQ) and over 70 hectares of its habitat, the endangered Semi-evergreen vine thicket ecosystem (RE12.8.21)<sup>4</sup>.



However, Redwood Park has come onto the development radar. Toowoomba and Lockyer Valley Regional Councils have invested in a Mountain Bike Master Plan, which would see

<sup>1</sup> [Watson, D. and Herring, M. \(2012\). Mistletoe as a keystone resource. An experimental test](#)

<sup>2</sup> [Watson, D. \(2001\) Mistletoe - A Keystone Resource in Forests and Woodlands Worldwide](#)

<sup>3</sup> <https://blog.publish.csiro.au/australian-mistletoes/>

<sup>4</sup> <https://apps.des.qld.gov.au/regional-ecosystems/details/?re=12.8.21>

around 20-30kms of new mountain bike trails constructed in Redwood Park. These trails would be part of a larger network for competitive mountain bike use involving steep downhill trails from Toowoomba escarpment. The proposed trails in Redwood cut across the habitat of the BBBQ and numerous other ground-dwelling birds and small mammals.<sup>5</sup>

The biodiversity of Redwood Park is part of the much larger regional biodiversity network providing an ecological stepping stone in the Main Range - Bunya Mountains corridor and in the Great Eastern Ranges biodiversity corridor. Its role as a conservation stepping stone is the rationale for LUCI's management committee to take the decision to support the [Save Redwood Park](#) campaign.

The campaign is not opposed to mountain biking. It is a very popular sport and does get people outdoors, possibly connecting with nature, which can only be a positive thing. However, the proposed siting of high speed downhill racing trails in Redwood Park with events featuring an estimated 75,000<sup>6</sup> attendees is clearly incompatible with a bird sanctuary not to mention with the intent and scope of the federal government's [National Recovery Plan for the BBBQ](#).

### *Continuing our members' stories... "Why conservation matters to me" by Jane Butler*



My growing interest in conservation began with my love for nature. Thinking back on the influences of my emerging awareness of the natural environment; the bush, its creatures and water ways there are some

highlights I thought I might mention. One such memory is holidaying with my Grandmother at a beach near Devonport

Tasmania. The shack was surrounded with bush so you couldn't help but brush up against nature - myriad of birds, snakes, echidnas, snakes, wallabies, snakes! Walking the bush track to the beach was always an adventure!

Another highlight to mention happened during my teenage years for which I have my Mum to thank. She organised for the family a couple of trips through the Cradle Mountain, Lake St Claire Reserve with the second trip as an older teenager. Both trips were memorable but the last one particularly so. I started out a very unfit, complaining teenager with blistered feet and aching muscles but completed the trip 7 days later fit and in complete awe and wonder with nature and the experience. On the last day we walked out over snow covered slopes of Cradle Mountain after being snow bound for a day in one of the Reserve huts.

Years later I revisited Tasmania for a family reunion to find the shack of my younger years no longer surrounded with the beloved bush but with suburbia. And was shocked to find so much of the bush leading up to the Cradle Mountain Reserve chopped out.

A later time, over 40 years ago as newlyweds, my husband and I bought some land at Murphys Creek. We swam in the creek which was then deep with swimming holes but, by the time we had children, the creek although still flowing was only paddling deep. In those days we saw a platypus, a water rat, a jew fish guarding its pebbled nest and yabbies swimming in the creek. So, I wondered what happened to these creatures and how the wildlife that relied on the creek now copes that the creek is permanently dry except when it behaves like a drain and flows briefly after it rains. It leaves you feeling very sad of what has been lost.

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<sup>5</sup>[https://www.youtube.com/channel/UCKFKZR\\_ckfaPDK\\_eHL7OPKtA](https://www.youtube.com/channel/UCKFKZR_ckfaPDK_eHL7OPKtA)

<sup>6</sup><https://www.tr.qld.gov.au/facilities-recreation/sport-recreation/walks-trails/14529-toowoomba-and-lockyer-valley-escarpment-mountain-bike-master-plan-2019-26>

In my retirement I find I have more time to pursue my interest in the local environment and believe the experiences that I mentioned above have driven this passion.

### *A stunning sight...*



*Eucalyptus major (Grey gums) shedding bark in the Egypt area. Photo by Martin Bennett.*

### **Monitoring threatened species in the Lockyer Uplands**

Our LUCI team has been busy this last quarter continuing koala surveys and habitat assessments and/or GBC feed tree recruitment surveys on six properties. The team is delighted to have been joined on some of these surveys by pairs of University of Queensland Wildlife Management students from the Gatton Campus. The students provide valuable field assistance and, at the same time, are introduced to field survey methods including use of remote sensing wildlife cameras.



*Students assist LUCI team to install a koala habitat assessment transect.*

Following each property survey, the landholder is provided with a report outlining the survey activities and findings, details on flora highlights, pest animal activity and recommendations for further surveying. Eventually, and with enough participating properties, the results of the surveys will allow LUCI to map the ecological values in our landscape. With another eight properties on the books, the team including student volunteers will be busy for some time yet.

### **20<sup>th</sup> March Biodiversity Property Planning Group meeting** *... by Penny Kidd*

The first meeting of the BPP Group for 2021 was hosted by Barb Lindbergs and Justin Hardy on their property at Preston and attended by twelve LUCI members and eight Friends of Gorman Gap. Guest speakers included Nat Parker, Environmental Civil Engineer (Airborn Insight), and Tony Hopkins (Feral Animal Control Service).

Barb outlined their journey in addressing weed (primarily lantana and privet) control and described the measurable gains in biodiversity as a result of their approach to property management. Martin Bennett described the property's vegetation (RE 12.8.14) as an ecotone "where the Darling Downs vegetation meets the Lockyer".

Nat Parker was invited to speak to the group about gully erosion, a problem on Barb and Justin's property. The presentation was followed by a walk to the erosion site on the property, a gully running downhill, lined with mature trees. It is a site in which Barb and Justin have undertaken woody weed removal. Nat outlined a fascinating 4-stage design to control the erosion through slowing down, directing and dispersing the flow of water while retaining topsoil and vegetation.

Tony Hopkins' talk covered different control methods for pest animals (e.g. deer and wild dogs) and the 'pros and cons' of these methods. With numerous awards and acknowledgements for the integrity of his

work, Tony emphasised the importance of employing humane control methods. His main message was to bring the animal to you by, for example, pre-feeding or calling, something he ably demonstrated with dog calling.



Barb Lindberg describes the gully erosion problems on her property.

Participant feedback was positive (e.g. "Thanks, this was a great workshop - I learned so much") and morning tea provided an opportunity to talk further with the speakers and learn from each other.

We're looking for a member who would like to host our next BPP workshop. Let us know your area of interest, what extra information/advice would be valuable for your property - and we'll do our best to find an expert. For further information contact Penny at [projects@lockyeruplandscatchmentsinc.org.au](mailto:projects@lockyeruplandscatchmentsinc.org.au)

### 11<sup>th</sup> April LUCI Autumn Walk ...notes and photos by Martin Bennett

Our first walk for this year was held at Joe and Heather Blatchly's property at Iredale. On the property there are two significant waterways, Monkey Water Holes Creek in the north, and Soda Spring Creek in the south, both contain Spa Water, fish, water dragons, turtles, etc. The property is on a flood plain with Silver leaved ironbark (*Eucalyptus melanophloia*) dominant with some riparian ecosystem and Semi evergreen vine thicket (Dry rain forest)

areas. There is a very healthy Koala population that feed on the Silver leaved, Narrow leaved, and Grey ironbark, Blue gums and Moreton bay ash, and the Spotted gums next door.

Other fauna visiting the property (not observed on the day) include gliders, antechinus and possums, Glossy Black Cockatoos, Squatter Pigeons, Wedge-tailed Eagles (nesting) and many more bird species.

There were many flora highlights on the day including: *Maireana decalvans* (Black Cotton bush below left) for which there are no herbarium records in Moreton District; lots of *Chenopods* (*Chenopodiaceae* Family) and *Asteraceae* in the ground layer; a large patch of *Allocasuarina luehmannii* (Bull oak) on a flood plain which is unusual in itself as they are usually found growing above flood plains on red sandstones; a large patch of *Casuarina cristata* (Belah) growing on the flood plain, which are visited and fed on by the Glossy Black Cockatoo; the *Alectryon pubescens* (Hairy boonaree), a poorly collected SEVT species with holly foliage, it is a medium sized tree producing small red flowers and seed capsules that on opening show a bright red aril, and a glossy black seed; *Apowollastonia spilanthoides* (Rough wedelia below right) of which there are only a few records in Moreton; and the Austral Cornflower, listed as vulnerable under the EPBC Act and Queensland's Nature Conservation Act.



Photos by Martin Bennett.

A number of cultural heritage artefacts have been found on the property reflective of the area of Iredale, which has an extremely rich Indigenous history of the

Yuggera Nation led my Multuggera in the 1850.

Thanks to Joe and Heather Blatchly for opening their property to LUCI and their hospitality during our end of walk morning tea.

### **16<sup>th</sup>-17<sup>th</sup> April - LVRC's Cultural Burning Workshops**

*...notes by Chris Hoffmann*

LUCI members were represented at a two-day cultural burning workshop hosted by LVRC and led by Victor Steffensen, author of the book "Fire Country - How Indigenous Fire Management Could Help Save Australia" and supported by Leeton Lee (Regional Hub Coordinator - Firesticks Alliance Indigenous Corporation). Also present were representatives from the Bunya Aboriginal Corporation (Bunya Rangers), Gateebil Gurrnung Aboriginal Corporation (local first nations group), Queensland Fire and Emergency Services including local fire wardens from Rural Fire Service and Queensland Parks and Wildlife Services as well as local residents.



*Attendees at LVRC's Cultural Burning Workshop with Victor Steffensen.*

Victor's evocative and lengthy explanations and stories about the various sites visited during the workshops provided participants with a much greater appreciation and understanding of the role that fire can play in the landscape and the impacts on vegetation, both good and bad. Victor has a deep and detailed understanding of the Australian bush, the trees, native grasses,

herbs and forbs, geology of the land and the complex careful way the land was managed by the "old people".

Cultural burning practices cultivate a landscape that is resistant to wildfire, more resilient to fluctuations in weather and displays high levels of diversity, especially on the ground and shrub layer of the forest floor. These practices also protect and preserve remnant old growth trees and increase productivity for grazing animals.

By re-engaging traditional indigenous people back on country to drive the change in burning practices, there is a great opportunity to heal the land and reconnect communities. An accredited training course for cultural burning has now been developed which will ensure that practitioners have gained a suitable level of knowledge and experience before undertaking burns on country. ***A follow up workshop will involve a practical demonstration of cultural burning at a site to be selected from the sites visited during the assessment stages.***

### **Lockyer Uplands Bird Survey Project**

Mapping of bird populations in the local landscape by LUCI member Roger Jaensch is progressing well with baseline bird surveys completed across five properties with around 76 species recorded. Roger spends two hours on each property and the plan is to repeat the surveys across different seasons. Roger has another five properties on his list and is open to more enquiries for inclusion in the survey. Contact [LUCI](#) if you are interested in being part of this important mapping exercise.

### **Native Grasses of the Lockyer project**

With around 80 native grass specimens collected to date, the challenge now is to learn how to identify the species. ***Would you like to help with this task? See***

upcoming events on the last page for details on the Second Native Grasses of the Lockyer Workshop with Dr Darren Fielder of Redleaf Consulting.

### Interesting finds...



Quail eggs possibly Painted Button-quail although yet to be verified. Photo by Penny Kidd.



Silveryeye eggs photo by Suzie Nicholls.

### Local insects and their host plants

Caterpillar host plants for the *Cressida* *Cressida* or Big Greasy butterfly include small scrambling vines in open areas in dry Eucalyptus forests or on their fringes. One example host plant in our Lockyer Uplands area is the *Cressida* pipe flower (*Aristolochia meridionalis* subsp. *meridionalis*). It is a slender vine that readily produces flowers and fruits when quite young; thought to be a response for

keeping up with the voracious appetite of the Big Greasy caterpillar. So, if you plant this vine as a host plant expect (and accept) that it will necessarily be stripped every so often to feed the beautiful caterpillar.



Big Greasy (*Cressida cressida*) male butterfly. Photo by Deborah Metters.



*Aristolochia meridionalis* subsp. *meridionalis*, larval host plant for the Big Greasy. Note the small egg on the leaf on the left. Photo by John Lahey.

Although present all year round, the Glasswing (or Little Greasy, *Acraea andromacha*) butterfly seems to be more noticeable of late perhaps because their caterpillar host plant, the passion vine is flowering.

The female Glasswing lays about 40 eggs on *Passiflora* (native or exotic) or passion vine species.<sup>7</sup> The Glasswing's habitats include areas where larval food plants are likely to be found such as vine thicket areas and eucalypt open woodlands and grasslands.

<sup>7</sup> [Glasswing Butterfly - \*Acraea andromacha\* \(brisbaneinsects.com\)](http://brisbaneinsects.com)



A pair of Glasswing or Little Greasy (*Acraea andromacha*) butterflies.

The Yellow-banded Day Moth (*Eutrichopidia latinus*) is active, as its name suggests, during the day and at a quick glance can be mistaken for a butterfly. With tufts of orangey-red hair on its abdomen and legs, this one (below) was sighted hanging around non-native grape vines but for one day only.



This Yellow-banded Day Moth was seen hovering for a day around several exotic grape vines.

If you have sticky hop-bushes (*Dodonaea viscosa*) at your place, you might expect to see the Red Jewel-bug or Ground Shield Bug (*Choerocoris paganus*). The bug in both adult and juvenile stages feeds on the sappy seeds of the hop bush, both on the tree and those fallen on the ground. Widely distributed throughout Australia, the Red Jewel-bug's habitat is in woodland and scrubland where the hop bush can be found.

The sticky hop bush is a very attractive tall shrub with beautiful flower clusters.

<https://resources.austplants.com.au/plant/dodonaea-viscosa/>

Unless you're very quick with your camera, when disturbed, they scuttle off smartly into the leaf litter or under logs where they tend to shelter.



A group of Red Jewel-bugs, Instar stage. Photo by Chris Hoffmann.

With a body length of 1cm as an adult, the bug has a shiny, compact, convex form in striking crimson and deep blue colours.<sup>8</sup> Its scutellum (shield-shaped back) is crimson with one large blue blotch towards the front and two smaller ones towards the rear. Its head, legs and the sides of the thorax are a deep blue colour while it is crimson and brown along the mid-line and abdomen (including wings). The juveniles tend to be smaller, rounder and less brightly coloured than adults. When in a moulting (instar) phase of their life cycle, the Red Jewel-bug can be found sunning themselves on rocks or roads in spring and on early summer mornings.<sup>9</sup>

<sup>8</sup> [Victoria Museum](#)

<sup>9</sup> *Ibid.*

### *Sennas - one exotic among natives* ...by Penny Kidd

Found flowering last March with rainfall, was this aptly named introduced weed - Easter Cassia (*Senna pendula* var. *glabrata*) Fruits and seed pods appear after flowering. This is a fast growing weed shrub to 5m from South America that displaces our native species. Their egg-yellow flowers are similar to some of our natives Sennas.



Photo from Brisbane City Council Weed Identification tool.

To sort out friend from foe, I followed [Martin Bennett's illustrated SENNA Species Booklet](#)<sup>10</sup> found on LUCI's website. I needed a 10x hand lens to confirm 3 key features of Easter Cassia:

- Thin golden leaf margin/leaf edge
- A thinly grooved stem
- A small, blunt gland (a round bump on the stem) on the lowest 2 leaflets

**To control** -if there's no seed pods, remove the plant by cutting the stump and dispose of plant material by composting. If the plant is seeding, bag and bin it. They are prolific seeders, so take care to avoid spreading any seedpods or seeds.

So, you've removed your dreadful Easter Cassia weed but want those beautiful egg-

yellow flowers back again? Solution - replant with local native Sennas.

At our property at Stockyard, we have 3 native species - Climbing Senna, Brigalow Senna and the more commonly occurring *Senna sophera* var. 40 Mile Scrub J.R. Clarkson+ 6908. When flowering, there's always yellow butterflies nearby - the Small-Grass Yellow, the Large-Grass Yellow and the Lemon Migrant (biggest and easiest to identify).



*Senna sophera* 40 mile scrub. Photo by Martin Bennett.

Sennas can fit into a small garden and are an entertaining plant. There's always something happening - flowers, butterflies, bees, seed pods splitting, tiny baby plants germinating under the parent plant, leaves closing up for the night and reopening for business the next day. It's all go, go, go.

#### **Happy Senna-ing.**

\*Some people may not need magnification to identify plant features. For the rest of us, a 10X hand lens (approx. \$10) is ideal. I recommend attaching it to a lanyard to wear around your neck in the field or to easily find in a backpack.



#### **Important numbers:**

**Wildlife carers Kath and Steph 0410 334 661 (available 24/7)**  
**Bat Conservation & Rescue Qld Inc 0488 228134**

<sup>10</sup> Martin's Senna booklet has beautifully detailed photos and descriptions of native and introduced

Sennas. I've used it many times - a great regional resource.

Test your knowledge...whose scat is that? Answer bottom of page.

Very different scats and all from mammals...



Photo by Martin Bennett



Photo by Diane Guthrie



Photo by Martin Bennett

### These scats belong to...

- A Microbat. There are more than 60 different types of Microbats in Australia.
- Echidna (*Tachyglossus aculeatus*). A close up image shows the sparkles of insect fragments.
- A koala (*Phascolarctus cinereus*) and these scats are very fresh!

### Upcoming events ...

- ☛ Come and weed with **Friends of Dwyers Scrub** on **Thursday 6<sup>th</sup> May** from **8:00-10:30am**. Enquiries welcome contact [LUCI](#)
- ☛ **Native Grasses 2nd Workshop** with Dr Darren Fielder, Redleaf Consulting, on **Sunday 23<sup>rd</sup> May, 9:00am-12:30pm, at Ma Ma Creek Community Hall**. Learn how to identify native grasses with more than 80 samples collected and contribute to the compilation of the grasses field ID booklet. Please bring along suitable magnifying equipment for the hands-on grass-ID exercise. Morning tea provided. **RSVP to [LUCI](#) essential by 17<sup>th</sup> May** with notice of any dietary requirements.
- ☛ **LUCI Annual Guest Speaker Breakfast** on **Sunday 13<sup>th</sup> June, from 7:30am for 8:00am start at Stockyard Creek Community Hall**. Enjoy a sumptuous hot breakfast and presentations by two exciting speakers Deb Metters (Coordinator, Land for Wildlife, South East Queensland) and Peggy Esby (Planting for Pollinators) who will speak, respectively, on **Butterflies** and **The Plight of Pollinators**. \$12.50/person, children free. Bookings essential, **RSVP [LUCI](#)** with notice of any dietary requirements.

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