



Quarterly Update No 23 ... January 2021

Best wishes to all LUCI members and supporters for a fulfilling 2021!

Nature's future in the hands of humans

Neighbours who have grown up in the Lockyer Valley talk about a past landscape and wildlife that today's and future generations will not see. Comments such as "when I used to ride my horse to school there were always koalas in the trees" and "as kids we would always see echidnas" and "when we were kids, we would fish in the billabong near our houses". It seems inevitable that each generation is gradually exposed to a new benchmark in nature, that is, diminished natural landscapes and fewer species in the wild. (As an aside, I've seen more dead echidnas on the road than I've seen ambling around the bush!)

Today, we are witness to fewer species than our forebears of 500 years ago with more than 700 vertebrate species and over 600 plant species becoming extinct in that time.¹ We are told the world's biomass of terrestrial vegetation has halved since the introduction of agriculture 11,000 years ago. According to the IUCN's estimate, around 20% of species are in danger of extinction over the next few decades as the extinction rate accelerates to 100 to 1,000 times faster than the normal background extinction rate.²

Let's assume that we value the half million or more other species with which we share this continent,³ most of which have been

here for millions of years longer than we humans. In any case, we need these other species to keep the ecosystem processes functioning on which our lives depend. What can be done then to slow, if not halt, the alarming race towards more extinctions?

Australia's principal biodiversity conservation tool is, of course, the national protected area network. However, with our biodiversity at crisis point, there is a view that "[a] greatly expanded protected area network is needed to ensure, among other things, all landscape ecosystems types are represented....intra-species genetic diversity is maintained, refugia are protected, and populations of functionally significant species are of a size to be ecologically effective."⁴

A sector that can make a significant difference is the agriculture sector, which (excluding timber production) accounts for around 446 million hectares of Australian land area⁵ while Australia's national parks and other terrestrial protected areas cover around 91 million hectares.⁶ The Commonwealth Government is recognising the important role that the agriculture sector can play in restoring biodiversity through its proposed Agriculture Stewardship Package.⁷

This package would incentivise and support farmers to change land management practices to restore and promote biodiversity as part of their operations.

¹ Bradshaw, C. et al (2021) *Underestimating the Challenges of Avoiding a Ghastly Future*, *Frontier Conservation Science*, 13 January 2021.

² Plater, Z.J.B. (2014), *Human-Centred Environmental Values Versus Nature-Centric Environmental Values: Is This the Question?*, *Boston Law School Faculty Papers*, 4-1-2014.

³ Chapman, A. (2009) *Numbers of Living Species in Australia and the World*, 2nd Ed.

⁴ Mackey, B. et al (2011) *Climate change, biodiversity conservation, and the role of protected areas: An Australian perspective*. *Biodiversity*, 9(3).

⁵ *Snapshot of Australian agriculture 2020*, Department of Agriculture, Water and the Environment

⁶ *Australian Bureau of Statistics, 1370.0 - Measures of Australia's Progress, 2010*

⁷ <https://www.agriculture.gov.au/ag-farm-food/natural-resources/landcare/sustaining-future-australian-farming>

The other very important sector is the private sector. While there are large players in this sector (e.g. Australian conservation Foundation, WWF, Bush Heritage Australia, Great Eastern Ranges), there is also you and I, the individual landholder not involved in primary production but in nature management. If membership of the Land for Wildlife Program in South-east Queensland is any indicator, then the private nature management sector is growing.⁸ On-ground support for this sector in Queensland may be available through the Private Protected Area Program,⁹ Voluntary Conservation Agreements with a local government,¹⁰ Land for Wildlife programs or through competitive grant schemes with regional NRM bodies, government agencies or philanthropic bodies. The significant contribution of our sector is that we can provide the all-important stepping stones between, and buffers for, the national protected area network. Our efforts can strengthen the viability of the national reserves in restoring biodiversity.

And just for interest...

[A thought provoking article about our species as a blip in "Deep time"](#) .

[Imagine a world without animals](#)

[The Anthropocene and the future of nature](#)



A helping hand during summer. Photo by Ken Kennedy

Continuing our members' stories... "Why conservation matters to me" by Al Young



The words conservation, ecology, biodiversity, etc. didn't figure in my vocabulary until I was in high school and then they became more meaningful and important while doing a degree in biology at the

University of British Columbia (UBC) in Canada during the late 1950's and early 1960's.

During my primary school years, in the mid to late 1940's we lived in logging camps on Vancouver Island, B.C. In those days 'timber harvesting' was known as the 'Glory Days of Logging'. It was also known as 'High Ball Logging'. The money from logging was so good that the logging companies would build extensive railway lines to deliver the logs to sawmills. The legacy of 'The Glory Days of Logging' was massive clear felling of the cool temperate coniferous forests in coastal B.C. and a very high injury and death rates to loggers.

Sorry about the digression! Anyway, while at UBC required readings, other than textbooks, were Rachel Carson's classic work called *Silent Spring* published in 1962 and a little know essay called *Tragedy of the Commons*. Shortly after graduation I came across a copy of Aldo Leopold's book, called *A Sand County Almanac with Other Essays on Conservation from Round River*, published in 1966.

Silent Spring published in 1962 was about the insidious accumulation of DDT (an insecticide) in food chains. As a result, apex predators, like hawks and eagles accumulated so much DDT in their bodies that it caused eggshell thinning which in turn often caused the eggs to break during incubation. The pesticide manufacturing industry and many politicians tried to destroy Rachel Carson's reputation by calling her a fanatic, a bunny hugger and a threat

⁸ <https://www.lfwseq.org.au/about/>

⁹ [Private Protected Area Program](#)

¹⁰ [Voluntary-Conservation-Agreements, Sunshine Coast](#)

to modern society! (Sound familiar nearly 60 years on!).

Aldo Leopold (1887-1948) who wrote a *Sand County Almanac* (1966) was an American forester, ecologist and naturalist who wrote articles on conservation and natural history often with many very forward-thinking ideas on conservation. One of the classic statements in Aldo Leopold's book was: "We abuse the land because we regard it as a commodity belonging to us rather than a community to which we belong.."

I can't remember when and how I came across the essay called "The Tragedy of the Commons". It basically states that unregulated access to resources (e.g. grazing on the commons) results in over exploitation of the resource due to the greed factor.

These books (and others) plus the scientific study of biology & ecology certainly cemented my desire to pursue a teaching career in ecology, conservation, and the environment.



Monitoring threatened species in the Lockyer Uplands ...by *Chris Hoffman*

Two days before Christmas, four LUCI members were joined by 21 enthusiastic volunteer students and their supervisors from the University of Queensland's School of Biological Sciences, to conduct a trial of the Koala Habitat Assessment¹¹ method at

¹¹ Developed by Queensland Trust for Nature, the habitat assessment protocol also includes a survey of koala presence using a modified version of Phillips' Spot Assessment Technique, which relies on koala scat finds.

Long Grass Nature Refuge. LUCI's aim is to engage more with tertiary students to elicit their assistance in monitoring threatened species in our local landscape and provide students with field experience. This endeavour received the support of Lockyer Valley Regional Council through its Community Environment Grant scheme.



Martin Bennett identifying a snake with captivated students looking on.

Enjoyed by all, the day involved students setting up two monitoring transects in suitable open eucalypt forest. A range of data was collected including flora species present, number of large trees over a specific diameter, canopy cover, weed species coverage and number of koala food trees present. Presence of koalas observed through scat finds was detected in both transects. Students also observed the setup of motion sensor cameras at several locations to detect the presence of wild dogs (key threat to koalas) and other animals (native and pest) on the property.

The exercise is part of LUCI's monitoring program for three key threatened species in the Lockyer Uplands, that is, the Koala (*Phascolarctos cinereus*), Black-breasted Button-quail (*Turnix melanogaster* (BBBQ)) and Glossy Black Cockatoo (*Calyptorhynchus lathami*). Each species is listed as *vulnerable* under State environmental legislation and could be considered an indicator species of ecosystem health and act as an "umbrella species" (through conservation of these species we are able to protect and conserve many other species). It is important that we gain a greater understanding of these species in our

landscape, as all three species were once widely distributed through the Lockyer Uplands area.

Monitoring the Glossy Black Cockatoo component is now into its fourth year. The plan is to roll out the Koala and BBBQ monitoring program on interested members' properties. LUCI's monitoring program will answer questions such as - How many individuals survive? Where are the current populations? Why do their numbers fluctuate? How are Koala and BBBQ habitats progressing over time and are management actions effective?

The university students, who are members of [iROOS](#), have been invited to work with LUCI landholders on these monitoring projects and we look forward to their continuing involvement. **LUCI thanks Peter Richards, Long Grass Nature Refuge**, for his ongoing collaboration in our landscape surveys. Long Grass connects with Dwyers Scrub Conservation Park and provides significant habitat connectivity in our landscape.

1st November LUCI Spring Walk

As LUCI's Autumn and Winter walks had to be cancelled due to Covid-19 restrictions, sixteen LUCI members and friends were not going to be deterred by threatening skies as they gathered for the long-awaited Spring special interest walk. The walk at Michael and Mel Darvall's property, Rockmount, with walk leader Martin Bennett, followed a section of gully with intact SEVT and included part of a mixed eucalypt woodland area where Koala presence had been recently recorded.

Some of the flora highlights included: *Toona ciliata* (Red Cedar tree); *Eleocarpus obovatus* (Hard Quandong tree); *Cordyline petiolaris* (Broad Leaved Palm Lily); *Asplenium attentuatum* (Walking Fern); and *Tetrastigma nitens* (Giant Walking Vine).



Walk leader Martin Bennett and participants.

Thanks to Michael and Mel for opening their property to LUCI and their hospitality during our end of walk morning tea.

22nd November 2020 - Glossy Black Cockatoo Annual Workshop

The end of 2020 marked 3.5 years of LUCI's Glossy Black project investigating Glossy Black presence and feeding habits in conjunction with feed tree characteristics. Project mentor, Dr Guy Castley of Griffith University, presented his third annual workshop on the findings of the project to twenty-two attendees.

We learned that *A. littoralis* (Black she-oak) is the Glossy Black's preferred feed tree species in the Lockyer Uplands, that the species is more likely to be a feed tree the older it is, and that this species grows in denser stands than either *A. torulosa* (Forest she-oak) or *A. inophloia* (Woolly bark she-oak). For both *A. littoralis* and *A. torulosa*, those trees that are fed on tend to be fed on multiple times. For all species, the more cones the tree has the more likely it is to be used as a feed tree.

The study indicates a rapid increase in mortality in *A. littoralis*, the Glossy's preferred feed tree species in the Lockyer Uplands, over the 3.5 years of the study compared to the other two species. Analyses indicate the *A. littoralis* die-off rate is significantly related to reduction in rainfall and soil type (basalt/sandstone).



Dr Guy Castley, GBC project mentor, presenting the 2020 Annual GBC workshop.

Participants discussed the implications of the findings for the next stage of the project as well as the bigger picture of sustainability of GBC feed tree resources in the landscape. All agreed that the most fruitful direction for the next stage of the project was to investigate the incidence of feed tree recruitment following post-extreme event (drought) in the existing survey transects before any human interventions such as feed tree re-planting.

Many thanks to Jan and Jen Schafferius for generously hosting the annual workshop at their property and to Lockyer Valley Regional Council for its support of the project through the Community Environment Grants program. A great workshop was capped off by the unexpected sighting of a very healthy-looking young koala sitting in a *Eucalyptus major* beside Jan and Jen's drive track.

*** Update...GBCs are back scouting for food** In the last week, there has been a sighting (the first in over 12 months) of a single Glossy in the Egypt area and another sighting of eight Glossies in the Rockmount area. Earlier this month, three glossies were sighted feeding on Belah (*C. cristata*) in the Iredale area.

Lockyer Uplands Bird Surveys

We are delighted to welcome Roger Jaensch as a new member to LUCI. Roger is a well-known and respected Ornithologist who brings a world of knowledge to share with LUCI members. Roger has offered to conduct baseline bird surveys on members'

properties, which, in addition to providing landholders with knowledge of birds visiting their properties, will assist LUCI to map bird presence and distribution in our local landscape.

Roger has commenced this undertaking, which involves spending a couple of hours per property and it is proving popular with landholders. It is very heartening to learn of the diversity of woodland bird species that are present in our landscape.

Accompanying Roger on the surveys is a great learning experience as he patiently explains the various calls and bird attributes. LUCI is grateful to Roger for his generous offer of these surveys, which will help LUCI map our landscape fauna.



Scarlet Honeyeater recorded by Roger Jaensch on one of the property surveys.

LUCI members who would like Roger to survey their property as part of the Lockyer Uplands Bird Survey program, email your interest to [LUCI](#)

Native Grasses of the Lockyer project

Since our September workshop with Dr Darren Fielder (Redleaf Environmental), the native grasses project is progressing well. The citizen science component, coordinated by LUCI member Penny Kidd, is underway with several workshop participants collecting grass specimens for identification by Darren and pressing for a herbarium. Thus far, 38 species of native grasses have been collected, photographed, and pressed and the search goes on.

Photographs of inflorescence and/or seed heads as well as stems and likely habitat will

be included in a booklet on the Lockyer Valley's native grasses. Contributions of photographs of Lockyer native grasses would be most welcome. A second workshop to bring all the collected materials together will be held around May at which time progress on the booklet and herbarium will be reviewed.



Echinopogon nutans or Nodding hedgehog grass.

This project is supported by a Lockyer Valley Regional Council Community Environment Grant. If you would like to participate in this project, contact [LUCI](#) for more information.

LUCI AGM/GM and Christmas party

LUCI's AGM and GM was attended by 33 members and supporters including guests LVRC Councillor Rick Vela and Brian Venz and Lane Pilon from Queensland Water and Landcarers (QWALC). The AGM included reports by the President and Treasurer on LUCI's activities and achievements for 2020 as well as LUCI's financial position. Reports were followed by the election of LUCI office bearers for 2021 and Diane Guthrie, Elspeth Darvall and Suzie Nicholls were re-elected to the positions of President, Treasurer and Secretary, respectively.

The General Meeting involved a review of current and potential projects/activities and confirmation of project coordinators. QWALC representatives, Brian and Lane, addressed the insurance cover and benefits that QWALC membership affords LUCI and provided information on the ACNC's proposed new charities' registration system.

A number of show and tell tables were present at the event including information on pest management, property planning and native grasses. The close of the year was celebrated with a very hearty Christmas lunch.



Upcoming events ...

- ☞ Weeding with **Friends of Dwyers Scrub** on **first Thursday of each month** from **8:00-10:30am**. Recommencing **4th February**. Enquiries welcome contact [LUCI](#)
- ☞ **Property Planning Group** first meeting for 2021, **late March, date to be advised**. If you are interested in sharing your property management stories with others, learning what works and what doesn't when it comes to biodiversity management and hearing from experts in the field, then this group is just what you're looking for. Special topics for the March meeting will include gully erosion treatment and pest management. For more details contact [LUCI](#)
- ☞ **Spring Special Interest Walk**, with Martin Bennett, **Sunday 11th April, 8:00am start**. The walk will be on a 320-acre property in the Iredale area and features creeks and riparian areas and Eucalypt forests including Glossy Black Cockatoo feed trees. Hear about the indigenous history of the property. Special records for the property include the Austral Cornflower, koalas, Glossy Black Cockatoos, Red-tailed Cockatoos, Gliders to name a few. Numbers will be limited so book early or for further enquiries contact [LUCI](#)

Chequered Memories ...

by Deborah Metters (Land for Wildlife Regional Coordinator)

My 'proper' interest in butterflies started about 15 years ago, but I have clear memories from my childhood of chasing little grey-blue butterflies around the garden. Each year, my parents would buy me a butterfly net, which I would promptly destroy within a fortnight by catching sticks, leaves and anything else that took my fancy.

Although much of my interest in butterflies now comes from an ecological perspective, I can still be transported back to the wonder and beauty that intrigued me over 40 years ago. Maybe it is no surprise that my favourite group of butterflies is the little grey-blue ones (Family Lycaenidae). Species within this Family are referred to as lycaenids or blues.

During the LUCI Native Grass Workshop in September last year, I was delighted to add a new species to my list of lycaenids, the Chequered Copper. I spotted it in among native grasses at Diane and Paul's property, Polbre, and quickly got a few shots of it. I was even more delighted when I revisited Polbre again this month and saw two more Chequered Coppers.



*Chequered Copper on Einadia hastata, Ruby salt bush.
Photo by Deborah Metters.*

The Chequered Copper (also aptly called the Grassland Copper) is an uncommon butterfly in south-east Queensland as they usually occur west of the Great Diving Range across south-eastern Australia. They depend on native grasslands as their larvae feed on leaves of the often-overlooked herb, Oxalis,

which grows between clumps of native grasses. I can't help but think that their presence over several months on Polbre is due to the tireless work of Diane and Paul in protecting the fields of native grasses and associated groundcovers, especially from invasive exotic grasses, which could easily take over.

Unfortunately, their choice of larval host plant, Oxalis, poses further difficulties for the Chequered Copper. Many people see Oxalis as a weed and promptly remove it. There are several native Oxalis species as well as several introduced Oxalis species and, to be honest, they are difficult to tell apart. The Chequered Copper doesn't seem to mind and will lay their eggs and successfully feed a larva through to pupation on either the native or introduced Oxalis. The larvae eat the soft green leaves of Oxalis.



*Chequered Copper on Einadia hastata, Ruby salt bush.
Photo by Deborah Metters.*

Another hurdle for the Chequered Copper, is that their larvae depend on the presence of small black ants (*Iridomyrmex* species). The larvae will not survive without the ants. This is a fascinating part of many lycaenids - they have 'attendant ants'. Shortly after the larvae emerge from eggs, the ants pick them up (yes, think about a tiny caterpillar being carried carefully in a tiny ant's mandibles) and take them back to the ant's nest. The ants look after them and protect them from harm. Several times a day, the ants carry the larvae out to Oxalis plants to let them feed. Why on Earth do ants do this? The association between attendant ants and lycaenids evolved because both parties benefit. In ecological speak, this is

called mutualism. The larvae get protection. The ant gets a sweet treat from the excretions of the larvae.

The larvae pupate into a chrysalis within the ant's nest and the adult butterfly emerges from the nest about 12 days later. Keen amateur lepidopterists have successfully raised Chequered Coppers from eggs to adult butterflies in captivity, so it looks like they can survive without attendant ants if humans look after them (*Metamorphosis Australia*, June 2008).

Adult Chequered Coppers are delightful. They can be quite inconspicuous, flying low and slow near the ground, camouflaging quickly into brown grass stalks and leaf litter when they settle. If you want to attract, or keep, this butterfly on your property, please conserve native grasses and associated herbs like Oxalis, plus little black native ants, as underneath the soil they could be harbouring baby lycaenid caterpillars.

Staying on butterflies...

A larva and its host plant...by Penny Kidd

I snapped this photo of a larva on a Scrub Wilga leaf (*Geijera salicifolia*) and then matched it to pictures of Orchard Swallowtail Butterfly early instar larvae at [Bob's Butterflies website](#).

I also checked it with Patricia Gardner's [Local plants for local butterflies](#) in the Toowoomba area.



Orchard butterfly larva. Photo by Penny Kidd.

Apparently, Orchard Swallowtail Butterflies are amongst our biggest native butterflies. Scrub Wilgas are a known host plant for this butterfly. The larva also eats introduced

citrus trees. Wilgas are in the same plant family as European citrus - Rutaceae.

Scrub Wilgas are one of my favourite Semi Evergreen Vine Thicket trees. They're so long-rooted and drought proof. Also a favourite of Orchard Swallowtails!

Property management advice...

Weed treatment by Martin Bennett

Many people face dilemmas when wanting to treat weeds on their property, for example, "how and where do I start, what herbicide and method do I use and at what time of the year?" So many factors to consider when planning weed control.

Start by getting advice from experts as to the right herbicide for the target weed, and then plan your treatment.

Always read the label and the Safety Data Sheets, and never add or increase mixes as it can have a deleterious effect on the treatment outcome. Follow the product directions including any additives (e.g. wetters) that are required. Water clear enough for you to see the bottom of a bucket is usually suitable for mixing with herbicide.

The method you choose will depend on the size of the weed, the slope it's on, whether it's in dense clumps or solitary specimens. The weed may require full foliage spray, the splatter gun method, stem injection, cut stumping, stem scraping or basal treatment. Weed in dams and watercourses will require suitable aquatic use herbicides and methods that never allow spray into the water.

If spraying foliage, it is considered more effective when the plant is growing vigorously and/or flowering. Start in an area that you believe will achieve the best results. Prioritise and consider treating mature plants first before they seed.

Different treatment methods on isolated **Lantana shrubs** include, for example, foliage spray, cut stump or, if on the flats, pulling out with a tractor or even slashing followed by respraying the regrowth. Always wait until the lantana regrowth is about knee high and growing vigorously (e.g. leaves are large

and flowering) before respraying. Do not spray when plants are affected by biological controls as the plant will not be operating in a healthy state and most likely the result will be poor.



Foliar spraying lantana using a splatter gun.

Mother of millions, that pest succulent that covers the ground and kills stock when they eat it, is best treated in winter when flowering. The large red flowers are easy to see and the stomata are open in the cooler weather allowing the uptake of herbicide whereas in the hot summer they are closed. (**Stomata** are tiny openings or pores in plant tissue that allow for gas exchange).

Green panic can be treated successfully with herbicide when used correctly and safely. I prefer to brush cut the Green panic down and allow it to flush back to 40cm high then foliar spray, or brush cut it to 40cm and wait a week for some regrowth and then spray each tussock. Spraying tall Green panic can create a fire hazard. If protection of off-target species (e.g. native shrubs, seedlings, vines, herbs and forbs) is an issue when foliar spraying, use a herbicide that only kills grasses and is safe around broad leaved natives. It's also a good idea to tag the natives with flagging tape (native grasses can be bunched and tied with flagging tape) to better direct kill to the weeds saving the natives.

One last tip - you might also consider using hand methods with some weeds if you are

fit enough. Small woody weeds can be dug out with a hoe while many herbaceous weeds can be hand-pulled.

Staying on the right side...

Any work on a roadside (e.g. weed management with herbicide, burning, removing trees, mowing/slashing) requires a roadside work permit from the relevant authority (local, state or federal). Bear in mind, without a permit, no insurance cover!

Of interest...Bat rescue story

Mark and Penny Kidd came to the rescue of a Gould's Wattled Bat that had flown into their house and in the process dislocated a wing. Most likely the bat, in the microbat order, had been resident in one of the hollows in large dead ironbarks on the property.

The Kidds called around for help and Bat Conservation & Rescue Qld Inc arrived to take the bat into care. The Kidds were pleased to hear the injury had good prospects for repair.

Photo by Mark Kidd.



Fortunately, Mark had handled the bat with a cloth and placed it in a box with a small amount of water. The rescue people informed Mark that if he had handled the bat with bare hands, the bat would have been euthanised and the Kidds would need to get tested for Lyssavirus.

For more information click on [All About Bats](#)

Important numbers:

Bat Conservation & Rescue Qld Inc 0488 228134

Wildlife carers Kath and Steph 0410 334 661 (available 24/7) and

Pretty native plants for the understorey...by Martin Bennett

If you are restoring Semi-evergreen Vine Thicket (SEVT, dry rainforest) areas, consider these three small shrubs as understorey plants. All three are vanishing and difficult to find in our scrubs due to weeds incursions, stock trampling and grazing. They are all quite pretty and worthy of cultivation if we don't lose them first.

Hypoestes floribunda or Musk-scented Plant, is a small shrub to 1m, with many branched leaves, hairy top and bottom, beautiful purple flowers, and small hairy dry fruits. Found in both dry scrubs and wetter rain forest, it is a food plant for the larval stage of the Blue Argus butterfly and the butterfly, in turn, may feed on this plant.



Hypoestes floribunda, Photo by Martin Bennett.

Harnieria hygrophiloides, White Karambal, is an endangered plant in NSW. In the Lockyer Valley, it is a small shrub less than 1m, which can be a single stemmed plant, or sometimes multi-stemmed, and leafy with small white flowers in the leaf axils. its leaves when crushed can have an unpleasant odour. It is found in both dry rain forest and wet sclerophyll forest (Damper Eucalypt forests).



Harnieria hygrophiloides. Photo by Martin Bennett.

Pseuderanthemum tenellum, Tall love flower, is a small plant that grows to 50cm and is many leaved with small to medium sized white flowers. Similar to its cousin *P. variable*, Love flower, except this plant is a herb in SEVT and wetter forests.



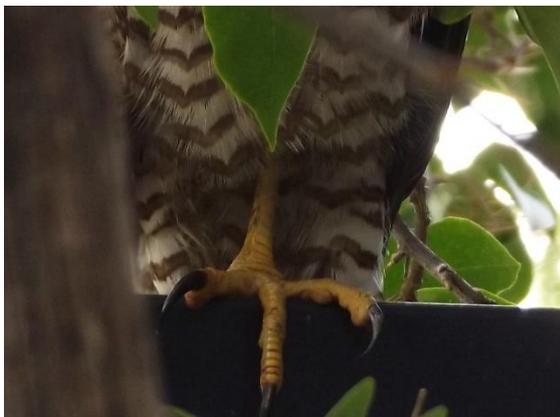
Pseuderanthemum tenellum. Photo by Martin Bennett

Summer help for Wildlife

15 ways to help wildlife by WIRES

Animals Australia's 6 things to help wildlife in summer

Test your knowledge...Collared Sparrowhawk or Brown Goshawk?



Do you have a photo or item of interest for the newsletter? Or concerns that you would like LUCI to consider? Then send us an email with your photo or item and...remember...

Stay connected, it's healthy!

If you do not want to be included on the email list for this newsletter please let us know at lucatchmentsinc@gmail.com.
Newsletter Editor Diane Guthrie 0413 333 681

An uncommon find...



Goodenia hederacea or Ivy or Forest Goodenia, a prostrate, sprawling groundcover endemic to Australia. A number of these little flowering forest dwellers were found in a *Allocasuarina littoralis* forest.

What do you think?

- Is it a Brown Goshawk (*Accipiter fasciatus*)
- Heavier brow ridge and flatter crown than a Collared Sparrowhawk
 - Rounded tail shape compared to notched or square-tipped tail in Collared Sparrowhawk.
 - Goshawk legs are long and yellow and the legs and toes are thicker than those of the Collared Sparrowhawk
 - The bird was larger and heavier than a crow-size. Both birds feed on small birds and mammals, reptiles and insects.

Your comments are welcome!

(Thanks, Roger Jaensch, for identification tips)