



## Quarterly Update ... April 2017

Greetings and enjoy our Autumn update!

### Connecting people and their patches!

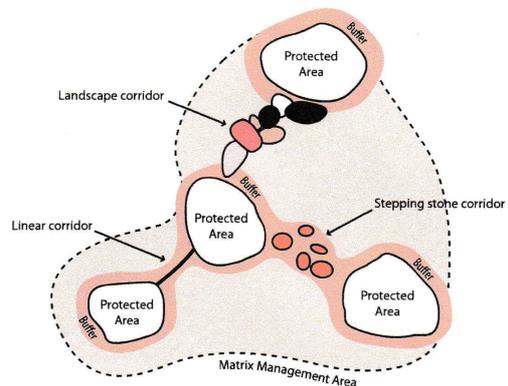
"Close to half of all mammal extinctions in the last two hundred years [across the globe] have occurred in Australia".<sup>1</sup>

"[N]early 45% of all Australia's vertebrate species are in some form of serious decline in one or more parts of their range."<sup>2</sup>

Sobering statistics indeed! One of the direct causes of these declines is habitat loss and degradation, primarily through clearing of native vegetation and pollution of waterways and marine areas.<sup>3</sup>

Efforts to halt declines in biodiversity have relied, to a large extent, on establishing protected areas or conservation parks. However, most "protected areas exist as islands in an altered or fragmented landscape" with many "failing to maintain minimum viable [species] populations...over the long term"<sup>4</sup>

The "connectivity" approach to conservation or landscape-scale conservation is now generally accepted as the best chance for protecting biodiversity. In other words, ecological processes and habitat resources necessary for species survival do not follow property boundaries and can be distributed across protected areas and private properties. Collaboration between managers of protected areas and private landholders is now the key to species survival. Land surrounding protected areas can provide habitat stepping stones or habitat patches in a conservation landscape.



Source: Mackey et al 2009

The draft *ShapingSEQ* Regional Plan recognises the importance of the landscape approach to biodiversity outcomes. The plan proposes to protect and nurture the regional biodiversity network in the Main Range-Helidon Hills corridor. Worth reading about is the Great Eastern Ranges Initiative, connectivity conservation on a grand scale. <http://www.greateasterranges.org.au/about-us/vision-and-goals/>

Ask yourself, do I care?

If the answer is yes, then you can do something to ensure biodiversity in the Lockyer Uplands does not die a "death by a

<sup>1</sup> Johnson, C. (2006). *Australia's Mammal Extinctions*. Cambridge: Cambridge University Press.

<sup>2</sup> Mackey, B.G. et al (2008). Climate change, biodiversity conservation, and the role of protected areas: An Australian perspective. <http://www.environment.nsw.gov.au/resources/nature/candger.pdf>

<sup>3</sup> Natural Resource Management Ministerial Council (2010). *Australia's Biodiversity Conservation Strategy 2010-2030*. Commonwealth of Australia. <http://www.environment.gov.au/system/files/resources/58321950-f8b6-4ef3-bb68-6f892420d601/files/biodiversity-strategy-2010.pdf>

<sup>4</sup> Mackey, B., Watson, J. & Worboys, G. L. (ANU Enterprise Pty Ltd) (2009). *Connectivity conservation and the Great Eastern Ranges corridor*. <http://www.environment.nsw.gov.au/resources/nature/candger.pdf>

thousand cuts". Each of us, no matter our main land use (grazing, horticulture or lifestyle), can commit to providing some remnant or restored native habitat areas on our property for use by the thousands of other species that share this landscape. Together, our patches of remnant or restored habitat can provide a more connected landscape capable of supporting larger populations of species and more microhabitats.

LUCI's connectivity project involving Semi-evergreen vine thicket (an endangered ecosystem) on two properties adjoining Dwyers Scrub Conservation Park is a great example of local landholders playing their part in landscape conservation.

LUCI has a dream that goes something like this... *from Main Range to Helidon Hills, around our protected areas of Glen Rock, Dwyers Scrub and Flagstone Creek Parks, Lockyer Uplands landholders and their supporters are creating native habitat stepping stones and corridors for the survival of native wildlife in our landscape!*

### Lockyer Valley Wildlife Research

Would you like to be a citizen scientist? Recall the recent excitement when a Darwin mechanic, wearing his citizen science hat, discovered a four-planet solar system? Citizen science refers to scientific information that is collected and/or analysed by members of the public, usually as part of a larger scientific project. [http://www.chiefscientist.gov.au/wp-content/uploads/Citizen-science-OP\\_web.pdf](http://www.chiefscientist.gov.au/wp-content/uploads/Citizen-science-OP_web.pdf)

LUCI members and supporters have an opportunity to undertake important citizen science work. Given the serious decline in koala populations elsewhere (80.3% in the Koala coastal area and 54.3% in Pine Rivers Shire between 1996-2014), it is important that koala populations in the Lockyer landscape do not suffer the same fate. A better understanding of koala distribution and available resources across the broader

landscape will tell us what needs to be done to avoid population declines.

LUCI is seeking individuals/families willing to do koala citizen science on their property or help someone else do citizen science on their property. The project will involve surveying a number of points on your property to check for koala scats and identifying tree species at those points. Training will be provided.

Better information means we can better manage koala habitat patches on our property as part of a broader connected landscape.

If you would like to be a **koala citizen scientist**, please contact Diane on 0413 333 681 or [lucatchmentsinc@gmail.com](mailto:lucatchmentsinc@gmail.com) for more information.



LUCI would also like to build on the first round of citizen science that landholders undertook as part of the Lockyer Uplands Glossy Black Cockatoo Project in 2016. We established the presence and distribution of GBCs across our properties and we gathered some information on their feed trees.

What we don't understand, however, is whether we have enough habitat resources in our area to sustain their populations. The GBC is now listed as vulnerable and their very specialised diet of she-oak cones means their survival depends on landholders managing healthy and viable stands of she-oak. As important is the GBC's need for tree hollows, which are critical for their breeding and nesting.

Dr Guy Castley from Griffith University's School of Environment will continue to guide and support LUCI members in a project on GBC feed trees on your property. Again, training will be provided.

If you would like to join the **Glossy Black citizen science project**, please contact Diane on 0413 333 681 or [lucatchmentsinc@gmail.com](mailto:lucatchmentsinc@gmail.com) for more information.



### **Junior Citizen Science Project**

LUCI's contribution to the Mount Sylvia State School's Science program got under way on 13<sup>th</sup> March with a LUCI member and two Griffith University researchers invited to talk to years 3-6 students about Glossy Blacks, koalas and insects in the Lockyer Valley. Students from Ma Ma Creek State School also joined the group on the day.

Mr Mark Thompson, Principal (Mount Sylvia State School), is piloting a new learning approach to science, which involves students in more applied learning activities. LUCI's involvement is aimed at developing students' interest in local native species and the importance of taking care of native habitats. Students are documenting what they are learning about the Glossy Black and koala in preparation for a presentation later in the year to LUCI members.



*Science Day at Mount Sylvia State School.*

LUCI is working with Mr Thompson on another project to be embedded in the science program. This project involves a riparian restoration program on land adjoining the school and the confluence of Blackfellow and Tenthill Creeks at Mount Sylvia. Riparian restoration has been highlighted as an important erosion and sediment loss management strategy in both the Lockyer Catchment Action Plan 2015-2018 and The Big Flood Report.

### **Friends of Dwyers Scrub Project** *(by Judy Whistler)*

FoDS weeders are starting to get traction on "freeing the canopy" in the Park of Cat's

Claw vine (*Dolichandra unguis-cati*).

Weeders have methodically worked their way from tree to tree, in more than 4,000 square metres of SEVT in Dwyers Scrub. Many trees are now healthier and a considerable amount of canopy is opening again. The extremity of the invasion in the SEVT area has been reached and attention can now turn to getting on top of the regrowth.

Meanwhile FoDS' focus is expanding to include treatment of the explosion in Madeira vine in the Park. Two small test plots have been set up: one to trial manual cut and spray with follow up to locate and remove tubers; the other to apply the herbicide Fluroxypyr.



FoDS members welcome any information that you would like to share on your experience with Madeira. Contact Judy or Jim on 5462 6724.

Two FoDS weeders have now acquired accreditation in the application of herbicides. Meanwhile, the FoDS team continues to explore options for increasing volunteer numbers.

If you are interested in joining FoDS to do a bit of weeding for a few hours once a month, contact Jim Kerr on 5462 6724 or Paul Stevens on 0429 880 144.

### **LUCI Annual General Meeting**

LUCI's first AGM was held on 19<sup>th</sup> March 2017. Eleven members attended and received the President's and Secretary's reports. Copies of these reports can be obtained by email on request.

Those present re-elected the existing management committee including Diane Guthrie (President), Peter Darvall (Secretary) and Elspeth Darvall (Treasurer).

The AGM was followed by a General Meeting at which members discussed the need to be inclusive in our membership and ongoing and future project directions.

The management committee welcomes feedback and suggestions from members to ensure we reflect members' interests and address members' concerns in our actions. Contact [lucatchmentsinc@gmail.com](mailto:lucatchmentsinc@gmail.com)

### ***LUCI Breakfast at the Darvalls*** *(by Jim Kerr)*

Fifty four people enjoyed breakfast, good company and listening to interesting speakers at the home of LUCI members Peter and Elspeth Darvall on 23<sup>rd</sup> April.

Dr Dave Berman, Regional Pest Technical Officer with the Murray Darling Committee, engaged the audience with stories and photographs of his feral animal research work in the outback. Dave stressed the importance of identifying distribution and abundance of a pest animal before taking action. A well-known example of Dave's work is the complete eradication of feral rabbits on Macquarie Island.



Dave spoke of the work on rabbit eradication in the Lockyer and Central Queensland emphasising that control measures such as *myxoma virus* or *calicivirus* will not succeed without also locating and destroying the rabbits' warrens. Local

examples saw rabbit warrens located in creek banks, timber piles and farm sheds.

Use of a rabbit detection dog greatly increases success in locating rabbits and warrens and after his talk, Dave and his dog Sophie demonstrated their detection skills. Sophie has multiple talents, even locating hidden mobile phones!



Chris Cameron spoke of his experiences with dingos when he was a sheep farmer and, more recently, working on composting systems in the Burdekin. He highlighted the value of assessing a 'pest' in context before taking action. He talked of dingo attacks on his sheep and the need to shoot the dogs but his surprise to observe dingos on a northern cane farm performing a valued (and welcomed) feral pig control function.

### ***A little bite with a big job***

That is the task of the tiny leaf-mining jewel beetle (*Hylaeogena jureceki*), to chew its way through the canopy killing cat's claw creeper (*Dolichandra unguis-cati*) that is invading a lot of our local Semi-evergreen vine forest (SEVT).

Released in Australia in 2012, the beetle and its larvae can seriously inhibit the spread of cat's claw by chewing their way through the leaves, thus reducing the vine's vigour and its capacity for seeding. The vine's tubers, however, remain intact and the beetles' waves of damage to the leaves" will alternate with periods of regrowth.

A LUCI project has seen three waves of jewel beetles released over the past six

months on test sites on a LUCI member's property. Early signs show evidence of the beetles getting down to work .



Newly released third batch of jewel beetles in test SEVT site on a LUCI member's property.

Gympie Landcare spokesperson Jenny Whyte, confirmed that the photo below shows beetle chewings and breeding! The mined trail in the leaf is the jewel beetle larva trail. As it nibbles its way from the inside, it matures and pupates in a dark brown disk at the end of the trail from which a new generation of adult beetles will emerge.



Evidence of beetle chewings and larvae trails.

LUCI will monitor the beetles' progress over the next few seasons to see how their numbers fare with predators and cold and dry weather conditions. It will be interesting to see if the beetles can reach critical numbers to disperse more widely in the landscape.

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

### Test your knowledge...

(Answers overpage)

Do you know the common and/or scientific name for any of the following?



Photos Gordon Claridge



Photo Diane Guthrie



Photo Kathy Ebert

### Of interest...

The next time you curse the spider web that just draped itself across your face have a think about this...(by Gordon Claridge)

The dragline silk - used for building the framework of webs and safety lines for the spider - has strength greater than steel and toughness greater than [Kevlar](#).

What is more impressive is that it is produced within water-based solutions at room temperature, and is non-toxic - and bacteria resistant.

Learn more from the article in the Conversation on February 2<sup>nd</sup>, 2017.

<https://theconversation.com/au>

Did you know that our native Noisy Miner (*Manorina melanocephala*) is increasing in abundance and expanding its range to the detriment of other birds, particularly native woodland birds? So much so, "[t]hroughout eastern Australia the Noisy Miner has been associated with the decline and absence of birds in remnant forest and woodland, in particular small, insectivorous birds, already profoundly affected by loss of habitat through clearing."<sup>1</sup>

Noisy Miners live in large sedentary colonies and display complex social behaviours. They are communally aggressive, attacking not only other birds but mammals and reptiles.

Modification of the structure and composition of ground-layer and mid-storey shrubby vegetation creates more of the Noisy Miner's preferred habitat, that is, woodland adjacent to grassy clearings. The presence of Noisy Miners has been found to exacerbate rural dieback in remnant areas as they disrupt the control of insects by other insectivores.



You can learn more about the Noisy Miner, its impacts on woodland birds and what you can do to control their overabundance on your property at this link...

<sup>1</sup><http://www.latrobe.edu.au/ecology-environment-evolution/dept-of-zoology-documents/Final-low-res-LR-LatrobeUni-Birds-Broch.pdf>.

Need help with your lantana or tree pear problem? LUCI has two splatter guns and a tree spear for member hire at *very* competitive rates. Contact Peter Darvall on 5462 6841 or Paul Stevens on 0429 880 144.

### Upcoming events ...

- ☛ The Glossy Black Conservancy's 2017 **Annual Birding Day** is on **Sunday 14<sup>th</sup> May**. Thanks to our 18 volunteers in last year's Birding Day, Lockyer Valley is now included in monitoring the distribution of Glossy Blacks in our region. How wonderful to match or better that number this year. [http://www.glossyblack.org.au/gbcday\\_registration.html](http://www.glossyblack.org.au/gbcday_registration.html)

You can take part by surveying your own property or helping on someone else's property. It's best if surveying can cover both early morning and late afternoon, but any time you can volunteer is valuable. If you are a first-timer, training can be provided. **Ring Diane on 0413 333 681 to sign up or for more information.**

- ☛ Martin Bennett, LVRC's Environment Officer, will lead a **Special Interest Walk** in a dry rainforest in the Stockyard area on **Sunday, 4<sup>th</sup> June**. Numbers are limited so get in early to reserve your place by contacting **Peter Darvall on 5462 6841**.

Join like-minded others in caring for native habitats and become a LUCI member only \$5/year, children free.

### How did you go on the test...

- ✓ The fungus is *Lactarius clarkeae*.
- ✓ The skink is one of the rainbow *Carlia* species and a male in breeding colours (thanks Rod Hobson).
- ✓ The orchid is the *Sarcochilus hillii* or Myrtle Bells.

*If you would like to submit an item or photo for the newsletter or you have any suggestions and/or concerns that you would like LUCI to consider, send us an email...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](mailto:lucatchmentsinc@gmail.com).  
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