



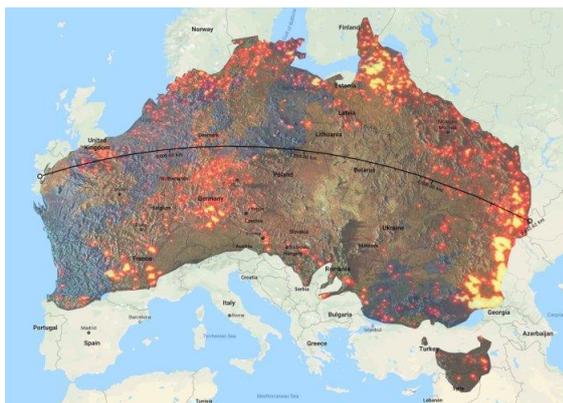
Quarterly Update No 19 ... January 2020

Best wishes to all for a rewarding 2020!

Fire, future scenarios and property and biodiversity management

The early start (Spring 2019) to the current bushfire season across a number of Australian states marked the beginning of a wave of bushfires that is considered unprecedented in extent, severity and longevity. With hundreds of fires burning across several states simultaneously, some at emergency level, many fires were unable to be contained and, in some cases, formed to become a mega-fire. In excess of 10 million hectares of vegetation have been burned along with loss of life, homes, businesses and sources of income. (This BBC News link provides a detailed look at the extent and impact of the fires as at 13th January 2020.

<https://www.bbc.com/news/world-australia-50951043>)



A compilation map of the extent of Australian bushfires overlaid on a Google map of Europe¹

Impacts on all species

It is only within the last few weeks that the impact on wildlife (including birds, reptiles, mammals, insects, amphibians) has gained headlines with reports of an estimated 1 billion animals likely to have been killed in

¹ geoawesomeness.com/2020/01/comparison-of-Australian-bushfire-landmass-with-Europe

NSW alone.² It is estimated that almost a third of koalas would have been killed and a third of their habitat destroyed in NSW. A recent report details the fire impacts on different vegetation communities in NSW and notes that at least 35% of that state's national parks estate has been affected with 55 parks/reserves having more than 99% of their area affected.³

Unprecedented but risks not unpredicted

While conditions for bushfire risk are shaped, in large part, by the interplay of El Niño and Indian dipole weather modes,⁴ it is generally agreed that changing climate conditions are increasing the risk of more frequent and intense bushfires. In 2009, a CSIRO-led consortium of Australian Government Departments released a report examining the interactions between fire regimes, climate change and biodiversity conservation.⁵ The report notes that "[c]limate change projections are for warming and drying over much of Australia and hence an increased risk of severe fire weather, especially in south-eastern Australia. Modeling suggests an increase of 5 to 65 per cent in the incidence of extreme fire danger days by 2020 in this region."⁶

With predictions of earlier and longer fire seasons, governments and experts are focusing discussions on preparedness for future emergency fire response and recovery scenarios.⁷ Preparedness is a responsibility that governments share with communities, neighbourhoods and individuals.

² [ABC News 2020-01-09/nsw-bushfires-kill-over-a-billion-animals](https://www.abc.net.au/news/2020-01-09/nsw-bushfires-kill-over-a-billion-animals)

³ [NSW Department of Planning, Industry and Environment Report on 2019-20 fires](https://www.nsw.gov.au/department-of-planning-industry-and-environment-report-on-2019-20-fires)

⁴ <http://www.bom.gov.au/climate/enso/>

⁵ [Interactions between Climate Change, Fire Regimes and Biodiversity in Australia A Preliminary Assessment](https://www.csiro.au/research-and-projects/interactions-between-climate-change-fire-regimes-and-biodiversity-in-australia)

⁶ *Ibid.* p.3

⁷ [University of Sydney-fire preparedness](https://www.universityofsydney.edu.au/news/2019/12/sydney-fire-preparedness)

Fire preparedness

If past catastrophic bushfire events in Australia have not alerted rural landholders already to the need for a bushfire management plan, then current circumstances certainly should. The web contains plenty of information and guidance on how to prepare.⁸ General information and advice on fire management and responses can be found on the [Rural Fire Service](#) website.

For landholders involved in biodiversity conservation on their properties, there are many useful and relevant resources on fire management to be found on the web e.g. [Fire & Biodiversity Consortium](#) and [Firesticks Guide for Developing a Fire Management Plan](#).

All agree that managing fire regimes into the future will be a complex and challenging task. At the least, landholders need to know their local fire warden, talk about fire management with neighbours and develop a fire management plan for their property that involves all family members and others who may work on the property.

Further reading...

<https://www.environment.gov.au/climate-change/adaptation/publications/fire-regimes>

decision-point.com.au/using-fire-to-promote-wildlife-conservation/
ecolsoc.org.au//managing-fire-plant-and-animal-conservation

csiro.au/managing-fire-for-people-and-conservation

[Bushfire and soils, Soil Science Australia](#)

Summer help for Wildlife

[Australian Geographic's guide-to-helping-native-animals-this-summer](#)

[Animals Australia's 6 things to help wildlife in summer](#)

Continuing our members' stories "why conservation matters to me" ... by LUCI member Francesca Powell



Conservation and habitat regeneration is a relatively new passion for me. I grew up in the suburbs; catching tadpoles, hiding from angry magpies and trying to stick to my horse

after a wallaby ambush about sums up my childhood wildlife experiences. The bush was just a fun place to ride horses! However after watching our favourite trail riding haunts get decimated and covered in cookie-cutter houses and monotone parks and golf courses, my inner conservationist started to emerge!

Moving to Rockmount and being immersed in the daily and seasonal changes of its diverse array of plant and animal life has really ignited my passion for this beautiful place. I can't believe how much life can still be found even in the midst of drought!

I really feel the responsibility that comes with stewardship of the land, that nature knows what she is doing and we have so much to learn. That is why conservation matters to me, not only do we lose the beauty of the landscapes we live in, but when we destroy our ecosystems we destroy our greatest teacher, healer and provider.

I am so excited to see the increasing conversation around conservation and regenerative practices and greater consultation with indigenous peoples on caring for country - it gives me great hope that amidst all the greed there really is a huge network of people that value the beauty, diversity and intelligence of the natural world over profit and progress.

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

⁸ [ABC Emergency: Bushfire Plan](#)

Stories from network friends...near



Sunshine Coast Hinterland - Future Food for Glossies Project

I am Janet Carew, a private conservationist in the hinterland of the Sunshine Coast, with a special interest in Glossy Black Cockatoos. I have a 36 acre covenanted property called "Torulosa Terraces" that has an extensive habitat for these vulnerable birds.

A survey of Glossy Black Cockatoos (Glossies) conducted across South East Queensland on 19th May 2019 recorded only 12 birds and 31 feed trees in the Sunshine Coast Council precincts. Ten of those birds and 26 of the feed trees were on my property. It is hoped that the small numbers were due in a major part to a lack of observers on the day. However, this small number of birds and feed trees, together with the increasing threat to habitat here from major developments, bush fires, and fragmentation of the forests, made me quite concerned and I wondered what I could do to provide a future food source for them.

In June 2019, I started a project to try to find out what proportion of trees propagated from the seed of known "feed trees" would also produce "feed trees". As you may know, Glossy Black Cockatoos are selective feeders, and choose a small percentage of a limited number of *Allocasuarina* species to feed on. In south east Queensland, there are three such species, one of which is *A. Torulosa* (or Forest She Oak), that grows in my area and on my property (hence my chosen name for the covenant). The trees selected by the Glossies to feed from are known as "feed trees". It is believed that they select these trees because the seeds are more nutritious. How the birds know this is still a mystery as it doesn't look as though they taste test each fruiting tree.

To find out whether "feed trees" result from those "feed trees" which have propagated you could wait and watch for about ten years to see if the birds select them to feed from. At the time I started the project that was my intention - and still is, but in the meantime, I am discussing a research option with the University of the Sunshine Coast.

With details yet to finalised, I know that the research will be important so when I collect the seeds, I record as much information as possible to allow further research to be done in the interim. Each source tree is marked, and GPS coordinates recorded so each tree can be revisited to collect more samples, eg soil, more seeds, leaves, and to add notes about aspect, companion plants and location etc. In addition, each seedling has a unique number that connects it to the parent tree. These individual trees will be tracked throughout their lives to a point where it can be determined whether they are producers of cones or not, and observations made to find out if birds are feeding from them. Hopefully, more information can be gleaned by scientific processes from the trees themselves in the shorter term.



Seedlings potted up at Barung Landcare, September 2019.

The propagation and management of the seedlings has been done by a wonderful sponsor organisation, Barung Landcare, which offered a section of its commercial nursery for me to use and staff to help me look after them. I am extremely grateful for this help.

I was excited to discover from my local Hinterland Bushlinks coordinator that LUCI exists and also has a special interest in Glossies, with some significant habitat in your area, and a project on the go! I was lucky enough to meet up with LUCI president, Diane, and Vicki, one of your members, in November last year, to exchange information and ideas about Glossy Black Cockatoo research projects..... and share our passion! It is so good to know others are working so hard to help our environment and native creatures.

It is now so much more crucial that we find out more and do more to save the Glossies given the recent devastating bushfires in their habitat in Queensland and Kangaroo Island, and probably in other areas too. There is still much to learn, but with the wonderful work, to date, of the Glossy Black Cockatoo Conservancy, universities and citizen scientists, we also have a lot of knowledge to build from. I am looking forward to keeping in touch with LUCI and sharing our information, and observations about the birds' activities and habitat development.

If members of LUCI would like to find out more, follow this project, and share information, I would be happy to have them join the Facebook group to record progress of my project "Future Food For Glossies" <https://www.facebook.com/groups/1130013417183201/> (or search on Facebook for Future Food For Glossies)...or contact me direct to discuss our shared interest in Glossies by email at janetcarew@yahoo.com.au

Thank you for the opportunity to share my story in your newsletter, and I look forward to meeting with more Glossy enthusiastic members as time goes by. Good luck with your conservation work.

If you would like to share a story about the wildlife or native habitats on your property, send it with photo to lucatchmentsinc@gmail.com

...and far



Russ Reeves in Pennsylvania

After my recent visit to the Lockyer Valley and seeing some of your wildlife, I thought you might like to see some of ours. My parents caught sight of this bobcat (*Lunx rufus*) on camera at their property in rural Pennsylvania. Bobcats are rarely seen by humans, due to their low population density and extreme ranges and being most active around sunrise and sunset.

A medium-sized (4-15 kg) cat native to much of North America extending from Canada to Mexico, its name comes from its signature stubby tail and its color varies from brown to grey, usually with a spotted appearance. This species typically prefers densely covered terrain but survives in a wide variety of habitats. Its usual prey includes small animals, including rabbits, hares, and rodents.



Photo supplied by Russ Reeves

Despite their low numbers, they are classified as Least Concern by the International Union for Conservation of Nature. Their main threats are hunting by humans and habitat loss and fragmentation. They are also known to fall prey to coyotes and pumas.

Check out (with sound on!) a link Russ has sent to a great example of using a remote wildlife camera to monitor what's on your property. https://youtu.be/qsDU_tTgsFw

Have your say!

The Queensland Government's Draft **South East Queensland Koala Conservation Strategy 2019-2024** highlights priority areas for koala habitat protection and restoration and actions relating to threat reduction, citizen science and improved habitat mapping. The public is invited to comment on the strategy with **closing date for submissions on 31st January 2020**.

https://environment.des.qld.gov.au/_data/assets/pdf_file/0032/97547/draft-seq-koala-conservation-strategy-2019-2024.pdf

LVRC's NRM Strategy 2020-2030,

developed with community input, was adopted by Council on 22nd January.

<https://lockyervalley.engagementhub.com.au/projects/download/4887/ProjectDocument>

Workshops will be held in February to discuss priority on-ground actions for achieving the Strategy's aims. Your views are important, and LUCI will ensure they are presented at the February workshops if you can send your views **by 14th February** to lucatchmentsinc@gmail.com.

The Commonwealth Government's **Draft Guide to nationally protected species significantly impacted by paddock tree removal** aims to assist landholders determine whether removal of paddock trees is subject to approval under national environmental law. Public comments on the Draft are due **by 14th February, 2020** at <http://www.environment.gov.au/biodiversity/threatened/publications/draft-guide-protected-species-impacted-paddock-tree-removal>

The Commonwealth Government is undertaking **an inquiry into** the relationship between **vegetation and land management** policy, practice and legislation **and bushfire intensity and frequency**. Public submissions are invited until **Friday, 28th February 2020**. Further details at <https://www.aph.gov.au/vegetationandlandmanagement>

Commonwealth boost for LUCI's weed management

Some LUCI landholders will receive a significant boost to help with their weed control efforts this year thanks to a grant from the Commonwealth Government's Communities Environment Program (CEP). The grant will enable LUCI to pay for a specialist weed contractor to spend three days on each of five properties to assist with the control of Cat's Claw and Madeira Vines and Tree Pear.

LUCI will be inviting interested landholders to attend demonstration days to learn from an expert how to control weeds in ecologically sensitive areas. The CEP provides support for small-scale, on-ground projects that aim to conserve, protect and manage our environment

<https://www.environment.gov.au/cep>

LVRC support for LUCI projects

LUCI was successful in its applications in the last round of the Lockyer Valley Regional Council's Community Environment Grants (CEG). The CEG program provides valuable support and funding to schools and community groups to undertake environmental education and on-ground conservation projects. Two LUCI projects will receive CEG funding in 2020.



LUCI's existing and planned monitoring of threatened species (e.g. Glossy Black Cockatoo, Koala and Black-breasted Button-quail) in the local landscape will be enhanced

by the purchase of additional remote wildlife cameras and other field equipment. With improved field equipment, LUCI will seek to renew its engagement with UQ Gatton students seeking fieldwork experience.

LUCI's second CEG from LVRC will enable Dr Fielder (Red Leaf Environmental) to conduct two community workshops on native grasses and grassy habitats in the Lockyer. Last year, it became clear during a field survey of native grasses by Dr Fielder on a LUCI member's property, that LUCI members were unaware of the diversity of local native grasses and were keen to learn more.

Workshop participants will learn how to identify native grasses and about the life cycles of native grasses and the ecological functions of grassy habitats. As well, participants will undertake fieldwork collecting grass specimens and creating a herbarium. Notices inviting participation in the project will be posted on LUCI's website and Facebook page and distributed through the Land for Wildlife network.

Lockyer in the Wild Nature Photography Competition 2019

LUCI's photography competition attracted 119 entries from 28 entrants, including ten primary school children. As with last year, the competition attracted a stunning array of fauna and flora photographs although there were less fungi photographs this year, most likely due to the prevailing drought conditions. The quality of photos made the judges' task of choosing the best in show in each category a very difficult one.

The exhibition of photographs at Stockyard Creek Community Hall was opened by LVRC's Mayor Tanya Milligan and attended by Councillors Rick Vela, Michael Hagen and Janice Holstein. A second showing was held at the Ma Ma Creek State School and was opened by Cr Vela and attended by Mr Jim McDonald MP.

Our thanks again to LVRC for its major sponsorship of the competition and exhibition, to local businesses and individuals (Locky Valley Toyota, Roxane Blackly Maps and Apps for Land Management and Sandy Creek Environmental) for their prize donations and to Stockyard Creek Community Hall and Ma Ma Creek State School for their support for the exhibitions.



Overall winning photograph by Jill Robertson

Entry photos can be viewed at <https://lockyeruplandscatchmentsinc.wordpress.com/>

November 2nd - Annual Glossy Black workshop

Fifteen landholders attended Dr Guy Castley's (Griffith University and Glossy Black Conservancy) annual workshop to hear what our monitoring of 672 *Allocasuarina* trees are telling us about the trees' lifecycle and Glossy Black feeding in our landscape.

We learned that around 60% of female trees surveyed had evidence of feeding with

the majority of feeding occurring on *A. littoralis* trees, followed by *A. inophloia* and then *A. torulosa*. In keeping with the known tree selectivity by Glossies, some transects had no feeding at all while trees in other transects are routinely visited. Female trees are significantly larger than male trees but female trees selected for feeding did not differ significantly in size from female trees not chosen for feeding.



Allocasuarina cones from top, clockwise, *A. littoralis*, *A. torulosa* and *A. inophloia* (source G. Castley "Conserving the Glossy Black-Cockatoo. Lockyer Uplands Project" report).

The density of feed trees varies from 75-2325 trees/ha with a mean of 674 +/- 98 trees/ha. Tree density is of major interest as the project progresses through its third year under drought conditions. Alarmingly, mortality of *Allocasuarinas* within the transects increased from 0.27% in 2017 to 5.47% in 2018 and 22.76% in 2019.

Future analyses will involve compiling local rainfall data from participating properties together with BOM rainfall data from nearby weather stations to relate *Allocasuarina* mortality patterns to water availability. Surveying of feed trees will continue through to 2022.

LUCI is grateful to Dr Castley for his ongoing mentoring and support of the project and LVRC for its financial support through the 2017-2018 round of the Community Environment Grant program.

December 8th - LUCI AGM and GM

Thirty-one people attended LUCI's AGM and General Meeting including LVRC's Cr Rick Vela and QWALC's SEQ Board Member Brian Venz. Many thanks to Maree Rosier for her generous hospitality in opening her home for the meetings and the very convivial Christmas sausage sizzle.

Following the presentation of the President's and Treasurer's reports, Diane Guthrie and Elspeth Darvall were nominated and re-elected to the positions of President and Treasurer, respectively. Suzie Nicholls was nominated and elected Secretary.

The General Meeting of members endorsed the following projects for 2020:

Ongoing	Glossy Black Feed Tree Project
	Friends of Dwyers Scrub Project
	Property Planning Group
	Special Interest Walks
	Annual LUCI Breakfast
New	Monitoring Threatened Species
	Conserving native grasses and grassy habitats in the Lockyer
	Weed Management Project
	Threatened Species Day Event

The Management Committee will meet at least bi-monthly and include attendance by project coordinators. It is planned that a calendar of all events and meetings will be included on LUCI's website. The Committee welcomes feedback, suggestions/ideas and invites agenda items for meetings.

Local plant profile

Good shade trees...by Karen Gruner

Last year at the LUCI AGM I was talking to LUCI member Maree Rosier about the beauty and joy of large shade trees. The Camphor Laurel tree at the grounds of the Mulgowie markets was mentioned, and despite it being an environmental weed, it is a magnificent specimen and becomes a central social hub for market goers to sit

and relax. Maree asked me what local tree species I would recommend that could give good shade coverage and accommodate a table and chairs underneath the canopy.

The local figs (*Ficus spp.*) certainly form that beautiful mushroom shape and the tree can be lifted (lower branches removed) to provide sitting space underneath. I'm sure you've all spotted a mature fig tree in a farm paddock that just thrives on neglect and looks terrific all year round. The roots, however, can be a problem is planting near any kind of structure.

Another tree that is not quite so vigorous but will still mature to a nice shade tree is the Wilga (*Geijera salicifolia*). They occur



Photos by Martin Bennett



all over the Lockyer Valley and are tough in full sun, tolerating dry conditions and some frost.

The Wilga flowers are small and cream/green coloured. The fruit that follow produce a shiny

black seed which forms on the end of the fruit - quite an interesting feature.

www.tanglewoodnatives.com.au

Is your lantana bouncing back with the recent rain...LUCI has two Splatter guns available for loan to members in their lantana management. Contact Paul for further information 0429 880 144.

Answers to test o'page thanks Martin Bennett

- *Excocarpia dallachyana* or Blind your eye
- *Clerodendrum tomentosum* or Harry lolly bush
- *Psydrax odorata* or Sweet Susie

Of interest...

Check out the Queensland Frog Society Inc. <http://www.qldfrogs.asn.au/>

Don Gardner of the Toowoomba Field Naturalists provided these great links...

- <http://mothsoftoowoomba.blogspot.com/>
Everything you ever wanted to know about moths in the Toowoomba area
- <https://butterflyconservationsa.net.au/>
online home of Butterfly Conservation SA Inc formed in 1998 to promote conservation of butterflies and their habitat.
- Published by Butterfly Conservation SA Inc *Caterpillars, Moths and Their Plants: Of Southern Australia* by Peter McQuillan, Jan Forrest, David Keane, Roger Grund, 10 Sep 1919 - 208 pages. <https://butterflyconservationsa.net.au/about/projects/>

Top 10 things you can do to help conserve Australia's biodiversity

<http://education.abc.net.au/newsandarticles/blog/-/b/3053795/top-10-things-you-can-do-to-help-serve-australia-s-biodiversity>

Keep a lookout...a rare find in the Lockyer by Martin Bennett

To date, only one specimen of an uncommon herb/daisy, the *Apowollastonia spilanthoides* has been recorded in the Lockyer. The plant grows as prostrate or up to 1m high, its



leaves are 2.5-10 cm long, 2-10 mm wide, toothed and bristly and it has large yellow flowers, with an orange centre.

The one specimen recorded (above) in the Lockyer was found on a Land for Wildlife property.

Test your knowledge...

(Answers overpage)

Do you know the common and/or scientific names of the following? Photos by Martin Bennett.



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

Upcoming events ...

- ☞ Weeding with **Friends of Dwyers Scrub** on **first Thursday of each month** from **8:00-10:30am**. All welcome. Interested? Contact lucatchmentsinc@gmail.com
- ☞ **Hidden Vale Wildlife Centre Tour**
LUCI members and friends are invited to a guided tour of the Grandchester facility and hear about the Centre's captive management program, wildlife pre-release strategies and innovative pest and threat management strategies. **Sunday 23rd February arrive 9:00am**. For more details and to **book your place** **RSVP** lucatchmentsinc@gmail.com
- ☞ **Expressions of Interest** called for **Google Earth GIS Workshop for beginners** with LVR's Martin Bennett to be held in early to mid-**March**. Learn how to use placemarks, turn those placemarks into a file, how to draw polygons, and turn them into a file, and some basics on using the layer pane, saving layers and files. **Date/venue to be finalised** on receipt of EoIs at lucatchmentsinc@gmail.com
- ☞ **LUCI Special Interest Walk** guided by LVR's Martin Bennett along the Petrophile and Planchons Tracks at Seventeen Mile Road. **Sunday 29th March, 8:00am start**. Easy tracks and great floristic diversity. Meeting details available when you **book your place** lucatchmentsinc@gmail.com. Get in early as numbers are limited.
- ☞ **Property Planning Group meeting**
Barb Lindbergs will be the host property for the next meeting and erosion will be the discussion topic. **19th April arrive 8:45am** for 9:00am start and bring morning tea to share. All members welcome. Venue details available on **RSVP** to lucatchmentsinc@gmail.com