Lockyer Uplands Catchments Inc
… caring for native habitats
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LUCI Update No 44 … July 2026

Winter greetings and enjoy the newsletter.

Leucaena … a boon for some, a problem for others

Native to Mexico and Central and South America, Leucaena leucocephala (common Leucaena) was introduced into Australia in the late 1800s. It is a fast-growing nitrogen-fixing tree cultivated around the world for its values as a fodder plant and estimated to cover 150,000 ha of grazing properties in Queensland.[1] Responsibly managed with plant height restricted, the young stems and leaves provide palatable fodder. However, it is Leucaena's escape from grazing areas and rapid spread into adjacent areas, particularly waterways, that is posing significant ecological problems.

A dense stand of Leucaena growing along a local waterway on public land.

Common Leucaena and all current commercial cultivars set abundant and durable seeds, which can remain viable in the soil for at least 20 years. Seed can set year-round and are spread by wind, water, cattle and machinery. Leucaena forms dense monospecific thickets that prevent light from falling on the ground crowding out native vegetation and regeneration and creating a limiting factor on potential habitat for native species.

Reported as a weed in more than 20 countries, Leucaena is not a prohibited or restricted invasive plant in Queensland under the *Biosecurity Act 2014*. While an industry Code of Practice has been developed "to encourage responsible management of leucaena…to maximise beef cattle production and minimise the weed risk to the environment"[2][3], managing dense stands of Leucaena on public lands, choking waterways, is sadly lacking.

Another biocontrol for Lantana

Staying with invasive species, *Lantana camara* is a Weed of National Significance in Australia and estimated to have invaded around 5 million hectares of pasture, bush and rainforest across New South Wales, Queensland, Victoria, Western Australia and the Northern Territory.[4] This invasion marches on despite "more than 30 biological controls for lantana … imported and released since 1914, 17 of which have become established."[5]

Queensland's Department of Primary Industries (DPI) has recently announced a new management tool, the fungal biocontrol *Puccinia lantanae* or leaf blister rust. Following extensive laboratory tests including on potential risks to non-target

[1] https://www.abc.net.au/news/rural/2022-05-28/weed-or-cattle-feed-leucaena-creeps-into-urban-areas/101100588

[2] https://www.mla.com.au/globalassets/mla-corporate/research-and-development/program-areas/grazing-and-pasture-management/leucaena/1.why-plant-leucaena.pdf

[3] https://keys.lucidcentral.org/keys/v3/pastures/Html/Leucaena.htm#Cultivars

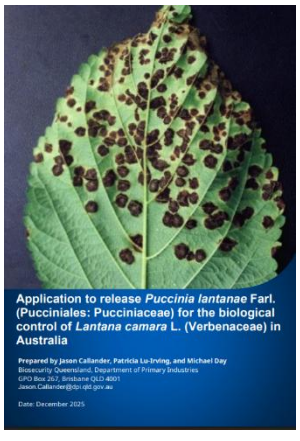
[4] https://www.abc.net.au/news/rural/2026-07-01/lantana-noxious-weed-biological-control-rust-under-preparation/106674568

[5] *Ibid.*

species, the pathogen has been judged 'host specific'. DPI has applied to the federal government for final approval for the release of the pathogen. The microscopic spores will be spread by the wind and infect "lantana's leaves, shoot tips, and stems, resulting in dead tissue spots (cankers) and stem dieback."[6]

Lantana leaves showing impact of the rust. Photo J Callander, Biosecurity Queensland.

Interestingly, authorities in New Zealand released a Peruvian isolate of the *Puccinia lantanae* rust to combat Lantana in 2015. At that time, it was claimed that the rust had "never been used as a biocontrol agent anywhere before".[7] However, establishment of the pathogen in New Zealand has not been confirmed, possibly because the lantana load there is substantially less than in Australia and/or the temperate climate may not suit the pathogen.[8]



The DPI's final report on the risk analysis for the release of *Puccinia lantanae* can be found here Risk-analysis/biological-control-agents/bca-risk-analyses/puccinia-lantanae

Planting for butterflies … by LUCI member Pam Pittaway

Lime berry: *Micromelum minutum*

In our garden this is a small to medium open shrub growing under bottle trees (*Brachychiton rupestris*) and scrub wilga (*Geigera salicifolia*) in our spotted gum/narrow-leaf ironbark community. The leaves host fuscous swallowtail and orchard swallowtail caterpillars; the red berries are food for birds including olive-backed orioles, and the flowers attract pollinating insects and adult butterflies. Lime berries are quite hardy in our poor mudstone clay soil and reproduce naturally by seed.

Fuscous swallowtail from Butterfly-of-the-month/october-2023

Orchard swallowtail from Butterfly-of-the-month

[6] *Ibid.*

[7] https://www.landcareresearch.co.nz/discover-our-research/managing-invasive-species/weed-biocontrol/projects-agents/biocontrol-agents/lantana-blister-rust

[8] https://www.agriculture.gov.au/sites/default/files/documents/application-from-qdpi-to-release-puccinia-lantanae.pdf

Soap tree or **red ash**:
Alphitonia excelsa

This is a local native, so we don't have to plant it! A small open tree with two-toned leaves, dark green above and silvery grey below. The leaves host the small green-banded blue butterfly and the indigo flash. Other insects love it too, leaving most leaves with 'bite' marks and at times almost leafless. They do recover.

Small green-banded blue from Butterfly-of-the-month/april-2023

Indigo flash from Butterfly-of-the-month/september-2023

Check out the Queensland Museum shop and the range of beautifully illustrated and informative books on wildlife among various other topics. Prices are very reasonable.

The Bunyas to Border (B2B) regional wildlife corridor project

The central aim of the B2B project is to enhance movement pathways enabling native animals to find food and shelter, breed and disperse and, thus, complete their life cycles. In addition to the koala as an umbrella species, the B2B focuses on seven other species for conservation attention.[9] Through activities that restore and connect (e.g. tree planting) and supplement (e.g. nest boxes) native habitat resources in strategic locations along the B2B corridor, the project adopts a connectivity conservation approach. The aim is to conserve and support dynamic ecological processes.[10] The B2B project was launched in 2023 and is funded by a partnership between IFAW and the Great Eastern Ranges as part of the Koala Climate Corridors initiative.

Under the B2B vision, several organisations and community groups (e.g. LUCI, Lockyer Valley Regional Council, High Country Koala Action Group, Greening Australia, QTFN, Sophia College) have come together to plant, to date, over 7,200 habitat trees for target species on private properties and school grounds creating strategic habitat linkages. Combined, these planting events have involved dozens of community volunteers. Several private donations from community organisations and individuals have also helped to fund tree planting activities. Spring will see further tree planting at Goombungee and Pilton State Schools, coordinated by High Country Koala Action Group, as part of the B2B Schools Wildlife Corridor initiative.

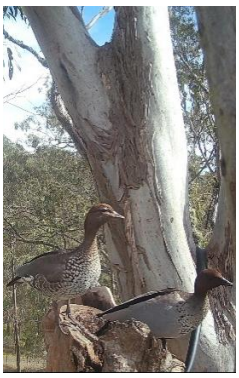
Greater Glider monitoring at Dingo Mountain in the north of the B2B corridor has produced two Greater Glider records thus far as well as other glider species. The work is a collaboration between Crows Nest Environmental, Leaftail Environmental,

[9] Other B2B target species include: Greater Glider, Glossy-black Cockatoo, Brush-tailed Rock Wallaby, Grey-headed Flying Fox, Rainbow Bee-eater, Speckled Warbler and Painted Button-quail.

[10] Tabor, G.M. and Keeley, A. (2025) *Ecological connectivity. Saving Nature in a Dynamic World.* Presentation at Bunyas to Border Connectivity Conservation Forum 14 July 2025. Copy available from LUCI

University of Southern Queensland, Friends of the Forest Somerset and LUCI.

LUCI is also partnering with Killarney Bushcare and Leaftail Environmental on monitoring the Glossy Black Cockatoo's use of nest boxes. While sightings of the species and feeding evidence have been recorded along the B2B corridor, to date, there is only one record of a natural nesting site. Scarcity of natural hollows for nesting is a limiting factor for Glossy Black survival. To supplement natural hollows, three types of Glossy Black nest boxes were installed during February at the one known and two likely natural nest sites. To date, nest box uptake by the species has not been established on mainland Australia unlike the Kangaroo Island Glossies. With the Glossy Black breeding season coming to an end, no uptake was recorded this breeding season although the boxes proved of interest to other species.



Southern Boobook (left) and Australian Wood Ducks (right) investigating a salvaged tree hollow installed at the Ravensbourne site.

Sugar Gliders investigating (left) a PVC hollow and (right) a drainage pipe hollow installed at the Lockyer site.

Paul Revie of Wildlife Queensland has commenced surveys of Brush-tailed Rock Wallaby (BTRW) in likely habitat areas in the Lockyer Valley as a contribution to B2B (see next item). The goal is to extend this work in other likely habitat areas across the corridor. Establishing where BTRW colonies may be present is the first step in informing our conservation planning for this threatened species.

For further information on the B2B or to discuss opportunities for participating, contact B2B Coordinator Mitchell Roberts

Rock solid: Protecting Lockyer's Rock-wallabies

Wildlife Queensland's Paul Revie has commenced camera trap surveying for the presence of *Petrogale penicillata* Brush-tailed Rock-wallaby (BTRW) at Lockyer sites considered to have high likelihood of habitat. This work builds on Paul's 2023 desk top analysis of likely BTRW habitat areas along the B2B corridor. Paul will complete surveys at sites at Mount Whitestone, Flagstone Creek, Stockyard and Helidon Hills over the next couple of months.

Brush-tailed Rock Wallaby mother and joey seen recently in western Lockyer. Photo Brian White.

One on Australia's growing list of threatened species, the BTRW has been recorded previously at Fordsdale, Townson and Helidon Hills. Typical habitat requirements for BTRW include rocky outcrops and cliff ledges with nearby grassy

areas for foraging. It is estimated that the species' range has declined by 50-90% since European settlement and most of the species' distribution is along the eastern length of the Great Dividing Range.[11]

When surveying is completed, LUCI will host a community workshop with Paul Revie to discuss the BTRW distribution data in the Lockyer, priority local threats to the species' survival and a conservation plan going forward. LUCI is keen to hear from you if you have likely habitat area on your property or would like to participate in BTRW conservation action. LUCI thanks Lockyer Valley Regional for their funding support of this project.

Friends of Dwyers Scrub

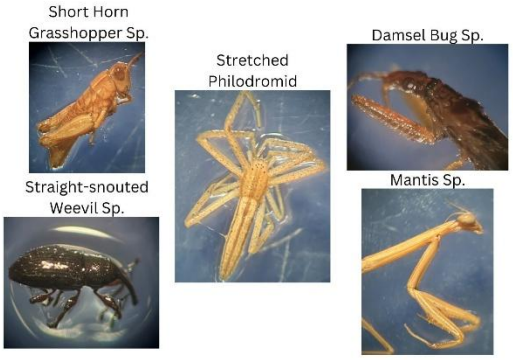
Ever considered volunteering for conservation? LUCI's Friends of Dwyers Scrub (FoDS) weeding group has been working in Dwyers Scrub Conservation Park for the past 10 years focusing on control of Cats Claw in the dry rainforest areas of the park. However, we need to boost our ranks. If you would like to come along and find out more about the Park and what is involved in the weeding project, you are most welcome.

Next weeding day is Sunday 9th July. If you would like to join, contact LUCI.

Update on Insect diversity in grasslands project

At the end of last year, Rhiannon Bird, a PhD student from the University of Queensland, surveyed grasslands for invertebrates. You might recall from LUCI's October 2025 newsletter, that Rhiannon's research involves 12 properties that are also part of the Lockyer-Toowoomba Birds on Farms project. Rhiannon has since completed some ID on the captured invertebrates and started the analysis process.

Preliminary results indicate that the presence of native grasses is one of the strongest drivers of higher invertebrate biodiversity. Other important factors (which are still being investigated further) are grass height, green ground cover, elevation and habitat structure around grasslands.



Some of the invertebrate species recorded in the grasslands surveyed by UQ's Rhiannon Bird.

Rhiannon will be able to share full results soon and will be able to use these to provide recommendations for grassland management which increases invertebrate biodiversity.

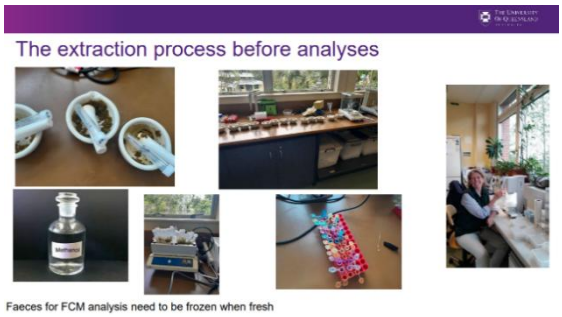
Understanding Stress in Koalas: A New Tool for Koala Conservation by UQ's Professor Joerg Henning

In June 2026, landowners attended a workshop in Crows Nest organised by the High Country Koala Action Group on an innovative project aimed at improving our understanding of stress in wild koalas. The project is being conducted by researchers from The University of Queensland, Central Queensland University (now CQUniversity), and the University of Veterinary Medicine Vienna, Austria.

Stress in koalas can be caused by a range of factors, including habitat loss, disease, drought, floods and urban development. Long-term stress can negatively affect a koala's health, immune system and ability to cope with environmental challenges.

[11] Draft-recovery-plan-brush-tailed-rock-wallaby-2024.pdf

Rather than capturing koalas and taking blood samples, the researchers use a non-invasive approach by analysing koala scats (droppings) collected by landowners in the Crows Nest, Lockyer Valley and Toowoomba regions. The team measures substances called faecal cortisol metabolites (FCMs), which are indicators of stress hormone activity in the body. This approach allows scientists to assess stress levels without disturbing the animals.



CQU Koala researcher and project team member, Dr Flavia Sanatamaria undertaking the koala scat extraction process.

The workshop highlighted recent progress in establishing a specialised laboratory test, known as the 50c Enzyme Immunoassay (EIA), at UQ. This test has been specifically adapted for koalas and provides a more accurate measure of stress related metabolites than previous methods.

A key component of the project has been the collaboration with landholders who assisted with collecting koala scat samples. In total, 150 samples were analysed, making this the first large-scale field study in Australia to assess and map stress levels in free-ranging koalas across different habitats.

Several interesting findings emerged from the study. Researchers detected higher stress-related hormone levels in male koalas at the beginning of the breeding season and identified areas where stress levels appeared to be elevated. The team hopes that, once fully established in Australia, this new testing method will become an important tool for monitoring koala health and supporting conservation efforts.

The researchers would like to thank all participating landowners for their valuable support, which has been essential in advancing our understanding of koala health across the region.

Upcoming events …

- A TERN webinar titled **"Who gets to tell the story? The challenges and opportunities for ensuring the science gets heard"** on **Wednesday 5th August, 3:00-4:00pm.** Hear three guest experts talk about how to get good science in front of "the right people". Find out more and register here Webinar Registration - Zoom

- **LUCI Winter Walk, Saturday 15th August, 8:30am-11:30am**, Join walk leader Deb Metters on a 100 acre Nature Refuge in a remote part of the Helidon Hills. Attendees will see vegetation responses to different fire regimes, fields of Kangaroo Grass, a healthy understorey with lots of grasstrees and wildflowers, and big old habitat trees. Deb will provide a guided bird walk and talk about the wildlife of the Helidon Hills. The property is only accessible by 4WD with carpooling possible. People are welcome to BYO lunch and to stay for a billy tea. **Numbers limited so bookings essential,** contact LUCI

- **CALL OUT** – we are planning an October workshop on all things **erosion** with **Soil Conservation expert Geoff Titmarsh,** formerly with DPI and DNR. We are looking for **a property with an erosion problem** to be the workshop venue. If you are interested in your place as venue, please contact LUCI. Geoff will cover topics such as gully control, management of hillside erosion and landslips and streambank stabilisation emphasising natural solutions and minimal engineering measures.

Interesting links to follow up…

An instructive article on the importance of improving connections between protected areas and patches of natural forests. Small forest fragments can protect more birds when the surrounding landscape is more helpful

A fascinating account of the restoration of a wetland sanctuary as well as the farsightedness and entrepreneurialism of a community group. Former WA potato farm transformed into wetland sanctuary for rare and endangered birds - ABC News

With the number of threatened species in Australia now exceeding 2,200, many conservation and environmental scientists say that the federal government's spending on nature (0.06% of the latest annual budget) is failing to meet its environmental targets. Experts suggest that it would only take about 1% of the federal budget to save most threatened species and restore soils and rivers. Australia is failing to meet its environment targets, argues ecologist

Inspiring stories from Africa of conservation practitioners taking on large challenges and engaging local communities' with them on the journey Nigerian Iroro Tanshi won the Goldman Prize for her work stopping wildfires | CNN and What it takes to make conservation work in Central Africa: Luis Arranz's 46-year journey

Excitement on Cape York Peninsula when an endangered Palm Cockatoo chick emerged from one of 29 artificial hollows installed by researchers, conservationists and traditional owners. Supplementing habitat resources with nest boxes is helping to fill the growing ecological gap left by ever-increasing loss of mature trees with natural hollows through logging, land clearing and fire. Scientists 'crack the code' as endangered palm cockatoo chick hatches in artificial nest - ABC News

Interesting video Why do Galahs chew tree bark? (Thanks Martin).

Flora snippets by Martin Bennett

Vincetoxicum grandiflorum, Small leaved Tylophora (syn with *Tylophora grandiflora*), is an uncommon vine, especially out here in our dry climate. I found a few growing at Redwood Park in Semi-Evergreen Vine Thicket on basalt. It is a slender vine not exceeding a stem diameter of 2cm, which along with the twigs and petioles produce a clear exudate. The leaf blades measure about 4-6.5 x 2.5-4.5 cm and the petioles about 1-2.5 cm long with two or three colleters (small finger-like glands) visible on the upper surface of the leaf midrib near its junction with the petiole. Upper and lower leaf blade surfaces and stems are hairy. Five-petalled 25mm red flowers, also hairy, are followed by a 90-100 x 6-8 mm fruit, broadest towards the base and tapering to a point at the apex, opening in half and full of silky parachute-like windblown seed.
https://apps.lucidcentral.org/rainforest/text/entities/tylophora_grandiflora.htm

Vincetoxicum grandiflorum, Small leaved Tylophora (syn with *Tylophora grandiflora*). Photo Martin Bennett.

The *Acacia maidenii* Maidens wattle, is a small to large tree, often thought to live for maybe 40 years, but recent evidence shows that they can live much longer in rainforest. A Marburg cluster is shown on QLD imagery at a mature height in 1933

and, as the same trees are still there today, we are looking at trees likely 100s of years old, whereas many in the open regrowth paddocks die way younger. A similar example is the *Acacia disparrima* Hickory wattle. It is short-lived in metamorphics in paddocks (as at Pine Mountain), but 15-18m tall in the scrub - magnificent trees.

Acacia maidenii Maidens wattle bark and seed pods. Photos Martin Bennett.

Jagera pseudorhus, Foambark, or fish poison tree, is used by indigenous folk to stun fish. Of interest, Jagera is named after Dr de Jager, a German naturalist, and not the Indigenous Jagera people.

Seed capsules of the Foambark. Photo Martin Bennett.

The Foambark is a small to medium tree with a rounded trunk with no lower branches and what many call a fern top canopy with leaflets with serrated leaflets. The fruit is a hairy, brown 3-valved capsule containing several black shiny seeds when open. The seed pod is covered in orange hairs that can pierce the skin and cause pain. However, it is an important bird attracting tree and host plant for some butterfly caterpillars. https://sown.com.au/jagera-pseudorhus-sapindaceae-foam-bark/

… and a starter on propagation …

When propagating if should be done under shade cloth, you will also need an area in which to harden off the plants.

First - collecting the ripe seed. If the seed has a fleshy covering, remove it or else you will invite rodents to dig it up. Soaking is a good way to soften the flesh and if the fruit floats it's often because insects have eaten into the seed allowing for air to get in. You certainly do not want live insects in your sown seed.

Second – raising the seed. Always use a fine potting mix or a seed raising mix. Place the seeds apart from each other in a seedling tray and cover with a mix no thicker than the seed diameter. With tiny seeds, many people just sprinkle sand over the seed. If seeds are easy to geminate (e.g. Blackbean, Crows ash, Tulipwood, Peanut tree, and Pavetta), I will raise them in a tube rather than seedling tray as this cuts out the third stage, pricking out.

A seedling tray containing various species with some delineaated by a light sand mix. Photo Karen Melissa.

Only use a mist or a fine spray to water the seeds during this stage. I water once a day.

Third – pricking out. Be careful when pricking out the new seedlings that you do not bruise the stem with your fingers. Use a small fork or similar. If potting on from a seedling tray to a tube, prep the tube mix by making a hole with a dibber to enable the seedling's roots to go in straight towards the bottom of the hole. Do not just stuff them in, this will create a bad root system.

Seedlings raised in tubes. Photo Martin Bennett.

If you have scrub seedlings at your place, like I do, and you think they will not do well where they are, you can gently dig them up, pot them up and treat them with seasol – it's a quick way to get a seedling up.

★★★

CALL OUT for a volunteer treasurer!

LUCI has a casual vacancy for the treasurer role until the next AGM in December. If you have some basic bookkeeping skills and a couple hours to spare each week, the committee would love to hear from you. Contact LUCI to find out more.

Important numbers:

Wildlife carers Kath and Steph 0410 334 661
Bat Conservation & Rescue Qld Inc 0488 228 134

Some visitors spotted recently …

A White-throated Honeyeater collecting lichen.

Two Yellow-faced Honeyeaters at the drinking bowl.

A juvenile Grey Shrike-thrush foraging for insects and, possibly, seeds (thanks Roger Jaensch for ID).

Stay connected, it's healthy!

If you would like to share your stories and photos through the LUCI newsletter, we'd love to receive them at LUCI.
Please let us know if you do not want to be included on the email list.
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