Lockyer Uplands Catchments Inc
… caring for native habitats
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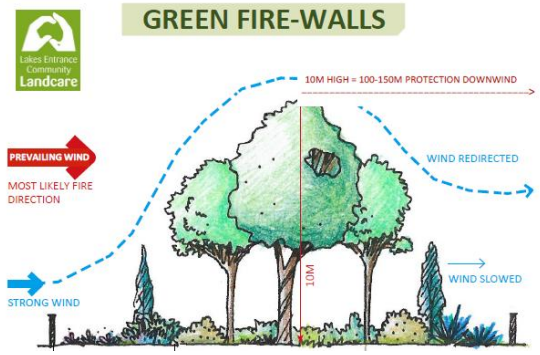
LUCI Update No 45 … October 2026

Greetings, hope you're enjoying this rain.

Green fire walls to retard bushfires … by Pam Pittaway and Martin Bennett

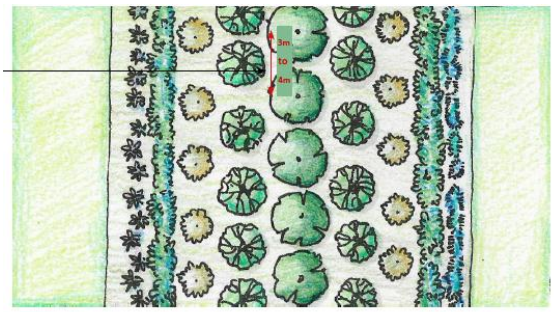
In southern Australia the hot, dry northerly winds over the dry summer and a winter-dominant rainfall combine to make the summer months their fire season. In the Adelaide Hills a total fire-ban in the open is imposed from October to March, to reduce the risk of bushfires. In Southeast Queensland the warm westerly winds over the dry spring and a summer-dominant rainfall make spring and early summer our fire season. A ban on vegetation burns from mid-August to the start of the first summer storm cycle would be a great way to reduce the risk of bushfires in the Lockyer Upland Catchments!

Nothing stops a bushfire when the combination of extremely low humidity, hot raging winds and a parched landscape prevail. However, communities in the Dandenong Ranges as far back as the 1970s have demonstrated shelter belts of fire-retardant plant species can slow grassfires and reduce the radiant heat generated by bushfires. Recently, the Lakes Entrance Landcare Group in Victoria have produced a guide on Fire-Wise Shelter Belt Design.



Key points in designing a green fire wall:

1. Plant the shelter belt between your property and the prevailing wind most likely to fan a fire in your direction.
2. Avoid long, straight rows that can funnel wind and a fire through your property.
3. The taller the plants, the greater the protection downwind – 10m height provides 100-150m protection downwind.
4. Plant a minimum of 3 to 5 staggered rows of trees spaced 2 to 4m apart. Smaller plants can be planted closer together and in several rows in front of the trees.
5. Plant succulents and saltbushes along the edge of the wall facing the potential fire risk.
6. The wider your shelter belt (20m minimum), the lower the risk of wind tunnelling and tree fall.
7. The longer your shelter belt (100m minimum), the greater the reduction in wind turbulence.
8. Plant a diversity of different sizes and shapes, at a density of 40 to 60%.



Not all the species recommended in the aforementioned Victorian guide will grow here, but the genera include some which are native to Southeast Queensland. The boobialla (*Myroporum*) species, *M. montanum*, *M. boninense*, and *M. acuminatum*

"prostrate" all grow locally. Martin discovered the prostrate form of *M. acuminatum* at Tallegalla, Minden, and Regency Downs and you can buy it at local nurseries.

Other fire-retardant genera which grow locally are native figs (*Ficus* species), sweet bursaria (*Bursaria spinosa*), bottle trees (*Brachychiton* species), blueberry ash (*Elaeocarpus* species), lilly-pilly (*Acmena* and *Eugenia* species), *Tristaniopsis*, hop bush (*Dodonaea* species), *Goodenia* species, *Indigofera* species, *Lomatia* species, salt bushes (*Atriplex, Einadia, Rhagodia* species), warrigal greens (*Tetragonia tetragonoides*), native pigface (*Carpobrotus* species), sedges (*Carex* species), flax lillies (*Dianella* species), rushes (*Juncus* and *Ficinia* species), and weeping grass (*Microlaena stipioides*).

Other subtropical native fire-retarding plants to consider include ivory curl tree (*Buckinghamia celsissima*), migden berries (*Austromyrtus* species), lemon myrtle (*Backhousia citriodora*), blackbean (*Castanospermum australe*), native lime (*Citrus australasica*), *Cordyline* species, tuckeroos (*Cupaniopsis* species), native frangipani (*Hymenosporum flavum*) and even smooth-barked gum species such as spotted gum (*Corymbia maculata*), and apple gum (*Angophora costata*).

Plants known to accelerate fire which should be avoided include the highly flammable mock orange (*Murraya paniculata*), ribbon-bark and stringy-bark eucalypts. Some ribbon-bark forests can send burning ribbons of bark up to 60 km ahead of a fire.

Further reading …

Ian-Crowley-Biological-Succession-LO-Spring-2020.pdf

Bushfire Resilient Building Guidelines for Queensland Homes.

LUCI Winter Walk on Helidon Hills nature refuge … by Pam Pittaway and Martin Bennett

A calm, sunny day on August 15th and good company in a special place made the walk most enjoyable. Deborah Metters' 100-acre nature refuge includes the Endangered Regional Ecosystem 12.5.6 and the Of concern Regional Ecosystem 12.11.9.

Deb provided a brief overview of the property and her vision for it and then led the group to flannel flower ridge. we were amazed to find two small flower clusters of the Black bootlace orchid *Erythrorchis cassythoides*. Then Deborah led us to a small, dead tree covered with it - truly spectacular! This species has extended its dependence on a symbiotic fungus by feeding entirely on the nutrients the fungus extracts whilst decaying dead timber.

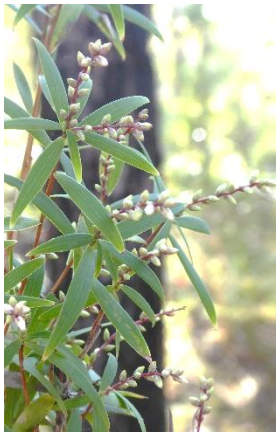
Erythrorchis cassythoides, Black bootlace orchid. Photos Martin Bennett.

As well, as a diversity of acacia species (*A. baeuerlenii, A. complanata, A. hispudula, A. neobrachycarpa, A. podalyriifolia, A. quadrilateralis),* other flowering highlights included: *Dodonaea viscosa* Sticky hop bush, *Hovea lorata* Short-leaved hovea, *Kennedia rubicunda* Kennedy pea, *Leucopogon affinis* Lance beard-heath and *Melichrus urceolatus* Prickly urn heath.

Acacia quadrilateralis square stemmed wattle.

The uncommon *Acacia neobrachycarpa*, Prickly wattle.

Kennedia rubicunda, Kennedy pea and scrambling vine.



Melichrus urceolatus, Prickly urn heath.(left) and *Leucopogon affinis*, Lance beard-heath (right). Top to bottom photos D. Guthrie

A severe fire swept through part of the property several years ago, stimulating the mass germination of *Acacia penninervis* (veined wattle - photos below with an arrow showing the gland and veins it is named for) which swamped the burnt area. This highly flammable species threatens the survival of endangered and of concern species by out-competing them and/or by advancing hot wildfires. In the absence of hot fires, it is present in these ecosystems as an isolated tree or two.

Acacia penninervis Veined wattle. Photos Martin Bennett.

Deborah described how she slashed thickets of this acacia, as well as undertaking small diameter (2 to 5 m) burns to destroy it, without stimulating its seed germination or destroying the litter layer. She chooses calm cool days, when the leaf litter is too damp to ignite. Litter is raked away from any preferred species, to ensure only the highly flammable veined wattle is burnt.

Thank you Deborah for hosting the walk and your hospitality. Thanks also to walk leader Martin for sharing his flora knowledge.

A reminder…

LUCI **membership fee is due** 1st November. Only $22 per person per year and enjoy membership benefits such as guided flora walks, workshops, access to grant programs to support land management, loan of fauna monitoring equipment, newsletters, and more. Membership fee can be paid online but please also email with contact details to secretary Pam Pittaway

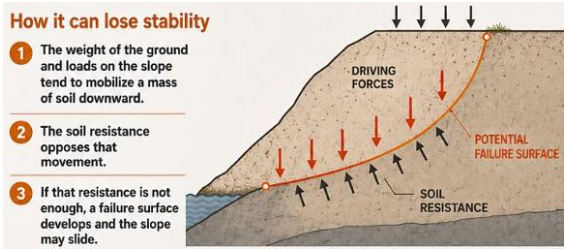
Erosion Management Workshop, Fordsdale property, October 11th

The erosion on Jim and Judy's Fordsdale property is located to the west of the house above the creek line running below the back of the house. The slip is about 20 mts wide and occurred after the floods of 2010/ 2011.

Over the years, Jim and Judy have planted an upper tree layer of mixed local species above the slip. The trees were planted very densely, with the object to stabilise the slipping below. They added a layer of Belah (*Casuarina Cristata*) trees below this upper layer. Further below the Belah trees the slip seemed stable as it had grassed over. However, at the upper lip of the slip the land is still dropping away, so much so that the erosion has moved further back into the planting. This part of the slip seems to be the most difficult to stabilise.

Soil Conservation consultant Geoff Titmarsh described the different types of erosion affecting some properties in Southeast Queensland and strategies to remediate them. Geoff described the onsite erosion as having the characteristics of a rotational landslide, commonly known as slumping. A section of topsoil on the steep hillside has slipped down an impervious subsurface layer. Soil has collected at the toe of the slope, with cracks above the 'scalloped' section of the landslip indicating the soil has slumped.

Most landslips occur when the resistance of the soil to gravity is overcome by the removal of the toe of the slope, and/or by adding a load to the crest of the slope, and/or by water 'lubricating' the zone between the topsoil and an impervious subsoil (potential failure surface) to produce a slippage plane.



https://www.linkedin.com/posts/geotechnicalengineering-slopestability-civilengineering-share-7454540838287794176-98v6/

Most of the remedial strategies Geoff has implemented over the years do not apply here, as there is no access for machinery to stabilise the toe of the slope with large rock or timber piles secured into the subsurface, and the cost would be prohibitive.

In Jim and Judy's case the creek is not undercutting the toe of the slope, and

stormwater is directed down the road at the crest of the slope, not down the slope. However, the road and road maintenance machinery may add to the load at the crest of the slope. Heavy rain draining through the soil to an impervious layer may also lubricate the slippage plane, causing the soil to slump.

Geoff advocates planting large deep-rooted, fast-growing trees to reinforce the toe of the slope, and hardy, deep-rooted groundcover and tree species across the slope to increase the resistance of the soil. Improving the density of the tree canopy and groundcover across the slope will intercept the rain, reducing the rate of drainage into the subsoil (less to lubricate the slippage plane) and will increase the amount of water roots extract from the soil (less soil weight).

The plants most likely to thrive in the Fordsdale landscape are locally native species. Species known to sucker are an advantage, as suckering will increase plant and root density. A summary of Martin's recommended plant species can be found here.

Thanks Geoff, for an informative workshop, and Jim and Judy for hosting us.

The Bunyas to Border (B2B) regional wildlife corridor project

The B2B project is about to start its 4th year of conservation activities with a regional focus. B2B is a community-driven initiative to enhance movement pathways enabling native animals to find food and shelter, breed and disperse and, thus, complete their life cycles.[1] Funded by a partnership between IFAW and the Great Eastern Ranges, B2B is part of the Koala Climate Corridors initiative.

To date, community groups involved in delivering activities include LUCI, High Country Koala Action Group, Crows Nest Environmental, Leaftail Environmental, Killarney Bushcare, Friends of the Forest Somerset and Lockyer Valley Regional Council. Several university students have volunteered to assist groups to deliver activities and hundreds of community members have participated in either tree planting events, attending workshops or volunteering their property for fauna monitoring activities.

B2B community networking, collaboration and leadership capacity will be boosted this coming year with support from the Foundation for Rural Regional Renewal, through funding from the Australian Government's Future Drought Fund. B2B achievements were showcased recently to an audience of over 400 attendees at the Australian Land Conservation Alliance's *2026 ALCA Nature-Climate Action: Our Opportunity to Lead Conference* thanks to a presentation by Great Eastern Ranges' CEO Gary Howling.

One of the B2B activities that has been a great success this year is the Schools Wildlife Corridors with tree planting events at four schools. Leading this engagement with school communities are High Country Koala Action Group and Lockyer Valley Regional Council's Resilient Rivers team.

B2B Schools Wildlife Corridor project officer, Dale Brouwer (High Country Koala Action Group) showing Goombungee students, the tree planting process.

The value of the Schools Wildlife Corridors experience is best expressed in the

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

following letter written by Goombungee State School Prep, Year 1 students with help from their Year 5 and 6 buddies.

"On Thursday 3 September, we planted 100 plants at Goombungee State School. We also mulched, put up tree guards and prepared the soil with water saving crystals and worm poo. We planted them because it will help the environment and animals. Planting more plants will attract more animals and provide more oxygen. Plants take in carbon dioxide and turn it into oxygen. ….

This will benefit our community by supporting the wildlife in our country and giving them more places to live. It will attract different species of animals and make our air cleaner. More plants also help to keep our soil healthy. We have been watering the plants everyday since they were planted and we have organised a holiday roster to make sure the plants keep growing over the holidays. This is a whole school community effort, and we would like to thank our parents and families for supporting us with this project."

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

Call out to landholders

LVRC and LUCI want to extend WIRES Water for Wildlife Program in the B2B corridor. Already, 41 Tree Troffs are providing B2B tree-dwelling mammals and climbing reptiles with supplementary water during the inevitable dry periods. If you'd like to **support wildlife by installing a water station on your property**, please contact Mitchell, B2B Coordinator .

Rock solid: Protecting Lockyer's Rock-wallabies

Wildlife Queensland's Paul Revie has completed camera trap surveying for the presence of *Petrogale penicillata* Brush-tailed Rock-wallaby (BTRW) at Lockyer sites considered to have high likelihood of habitat. Paul's most recent survey at a Helidon Hills site captured BTRWs on five of the twelve cameras deployed, which is very exciting.

Image of Brush-tailed Rock Wallaby captured on a Helidon Hills property. Photo Paul Revie.

Of interest, the survey detected the presence of cats but, thankfully, not fox. Both species, particularly fox, are recognized BTRW predators. BTRW are most vulnerable to predators when they leave their rocky outcrops and cliff ledges to forage on nearby grassy areas.

Cat recorded at BTRW survey site. Photo Paul Revie.

LUCI is assisting Killarney Bushcare with camera equipment to undertake BTRW surveys in the south of the B2B corridor. The aim is to extend surveys to likely habitat areas in the north of B2B corridor. A community workshop with Paul Revie will be held in the new year to develop a BTRW conservation plan for the B2B corridor.

LUCI thanks Lockyer Valley Regional Council for their funding support of this project.

Bird matters

Watching successive generations of our resident Welcome Swallow fledglings with their, seemingly, 'protruding' beaks prompted me to do some research. While the inside of a bird's mouth is called the gape, the fleshy area at the base of the beak connecting the upper and lower halves is called the gape flange. This part of the beak is often enlarged in baby birds to encourage the parents to feed them.[2]

Most flanges are white, cream or yellow coloured. For example, finch hatchlings, raised in deep dark nests, have bright luminous flanges while Welcome Swallows chicks have white gape flanges. Flanges may be pale or bright, thin or 'swollen', and they tend to fade as the bird ages.[3] By the time a bird reaches adulthood, the gape flanges will no longer be visible.

Note the cream gapes on these Welcome Swallow fledglings. Photo taken through the window to avoid disturbance, Diane Guthrie.

H5 bird flu update - H5N1 High Pathogenic Avian Influenza (HPAI)[4]

H5 bird flu has been detected across Australia in wild birds with the first case **confirmed in Queensland** on 25 July 2026. A national surveillance plan is in place and Biosecurity Queensland (BQ) advises "there have been no detections of the disease in native birds or poultry in Queensland, and there is no evidence of mass mortalities (as of 17August).

Key messages

1. **Avoid** contact, keep children and pets away.
2. **Record** what you see, including the bird or animal species, number of impacted birds or animals and the location.
3. **Report** sick or dead birds or wildlife to the 24-hour Emergency Animal Disease Hotline on **1800 675 888** from anywhere in Australia."

If a dead bird cannot be left where found, "disposal by double bagging and placing in your general rubbish bin may be possible … **wear personal protection equipment**. A government guideline for carcass disposal following a mass mortality event is available by emailing **birdflu@detsi.qld.gov.au**"

National Forum - Glossy Black-Cockatoo Conservation 18th-19th November

This online event brings together experts, community groups, governments and citizen scientists to share knowledge and identify conservation priorities. REGISTER here.

[2] https://kaylafisk.com/2022/12/15/bird-anatomy-beak/

[3] Norma Henderson's Chicks Nestlings & Fledglings of Australian Birds. Identification & care.

[4] Environmental Regulatory Update newsletter

Interesting links to follow up…

In TERN's Ecosystem Observations webinar, three researchers explain how terrestrial and airborne LiDAR can monitor Australian vegetation changes in three dimensions. Seeing-our-vegetation-change-why-lidar-time-series-matter-for-australias-future/

The countless ways in which insects are critical in supporting life on earth Insects play critical role in ecosystems beyond just providing food, new research shows

For those with more than a passing interest in soil, this book is worth a read. The World Beneath Our Feet — Frank Ashwood

A new offset strategy by the NSW Department of Climate Change, Energy, the Environment and Water to address environmental impacts of development involves setting aside larger scale, connected habitat in affected areas. Biodiversity offset now protects habitat in same region as development - ABC News

A recent drive along the Warrego Highway between Gatton and Withcott indicates the appalling wildlife roadkill continues apace. Last year, LUCI drew the Department of Main Roads and Transport's attention to the koala roadkill in the region. Wildlife friendly infrastructure provides wildlife with safe movement.
Wildlife Movement Solutions | Brisbane City Council
Colorado wildlife overpass vehicle animal collisions results

Uplifting story on environmental stewards Still wielding a chainsaw at 85: the Australians restoring nature in retirement

Appreciating native bees and their nesting requirements Keith Pethick's Hollow Keeper — The Bees Australia Forgot – BACKR

An interview with American farmer, novelist, poet Wendell Berry who died in August this year. Wendell Berry spent his life farming and writing – his legacy is an ethic of care for the natural world.

Upcoming events …

- **Friends of Dwyers Scrub** weeding group will meet on **Sunday 1st November, 8:00-10:00am** followed by shared morning tea. Help control canopy killer vines in the dry rainforest of one our local conservation parks. Directions, induction and equipment provided. Contact Catherine Burton if you are interested in coming along.

- **LUCI AGM/GM and Christmas morning tea, Sunday 6th December** at Flagstone Creek State School, **arrive from 9:00am for 9:30am start.** An invitation to LUCI members and supporters to come and celebrate the year's achievements and have a say in planning for the new year. Our guest speaker, **Scot McPhie, Coordinator of Birds on Farms Project Lockyer-Toowoomba,**

will talk about the Birds on Farms Project, the status of our bush birds and managing our land for birds. This year, we are asking people to 'bring a savoury or sweet Christmas plate' while tea, coffee and juice will be provided. There will be the usual lucky door prizes and booklets and native plants for sale (cash only). Please **RSVP** to secretary Pam Pittaway. Agenda and office bearer nomination forms will be sent out mid-November.

- Our LUCI Spring Walk at Ravensbourne National Park, which was scheduled for the 24th October had to be postponed due to the rain. We hope to find a new date when Martin is available and the weather permits while it is still Spring. However, our fall back option is that Ravensbourne becomes our Summer Walk early in the new year.
We will keep you posted by email.

Mistletoes galore … by Martin Bennett and Pam Pittaway (photos Martin Bennett)

A highlight of the drive into Jim and Judy's Spinach Creek property (see p. 4) was seeing three different mistletoe species on one very healthy black tea tree. Mistletoes need to parasitise living cells of their plant hosts and cannot survive if those cells die. Overloading may be a problem for isolated trees carrying many individuals, but that is a problem of over-clearing, not mistletoes.

Professor David M. Watson a prominent Australian ecologist from Charles Sturt University is widely regarded as a leading expert on mistletoes and their roles as ecological keystone species. He has used extensive research, field experiments, and public advocacy to shift the public perception of mistletoes from a destructive, tree-killing weed to an "ecological Robin Hood" that drives forest biodiversity.

This beautifully healthy tea tree hosted *Notothixos incanus*, Grey Mistletoe, *Dendrophthoe vitellina*, Orange-Flowered Mistletoe, and *Viscum articulatum*, Jointed Mistletoe.

The Host:

Melaleuca 9racteate, Black tea tree, a large 20m tree with hard, rough, black bark. A tea-tree with small clustered, aromatic leaves, small cream bottle brush flowers, followed by small clustered cylindrical capsules, containing very fine seed. A species along creeks, rivers, depressions and flood plains.

The Three Mistletoes:.

Notothixos incanus, Grey Mistletoe (small greenish flowers and small fruit with a nipple), a common mistletoe found on many *Melaleuca* spp., especially Black Tea Tree. This specimen could have been hyperparasitic (growing on other mistletoes and occasionally on root hemiparsitic plants e.g. *Exocarpos cupressiformis*) on a *Dendrophthoe vitellina*, Orange-Flowered Mistletoe. .

Dendrophthoe vitellina, Orange-Flowered Mistletoe, a long pendulous form, with light grey-green narrow leaves, and orange-yellow banana shaped flowers, followed by red succulent fruits. Seen frequently on *Melaleuca* spp., *Lagestroemia* (Crepe

Myrtle), *Grevillea robusta* (Silky oak), and often hyperparasitised by *Notothixos subaureus*, Golden mistletoe, and *Viscum articulatum*, Leafless Mistletoe.

Viscum articulatum, Jointed Mistletoe, leafless, although all stems jointed and green with tiny green flowers and spherical orange, succulent fruits. This is a Hyperparasitic Mistletoe, attaching to other Mistletoes and or root hemiparasitic plants, e.g. *Amyema congener*, Variable Mistletoe, and *Exocarpus* Native Cherry species.

On a recent walk at Mount Marrow, several *Amyema lucasii*, the Leopard ash or Flindersia mistletoe were seen utilising this unusual host *Owenia venosa*, Crows apple, Red almond. Its common host is *Flindersia collina*, Leopard ash, sometimes *Flindersia australis* Crows ash, and sometimes *Geijera parviflora*, Wilga.

The Leopard ash mistletoe has paddle shaped, tough leaves with a smoky coloration. The yellow (sometimes red) flowers hang directly down in an umbel of triads (three flowers connected together), resembling an upside-down chandelier. The fruit is elliptical, bright yellow, and desirable to many fauna species.

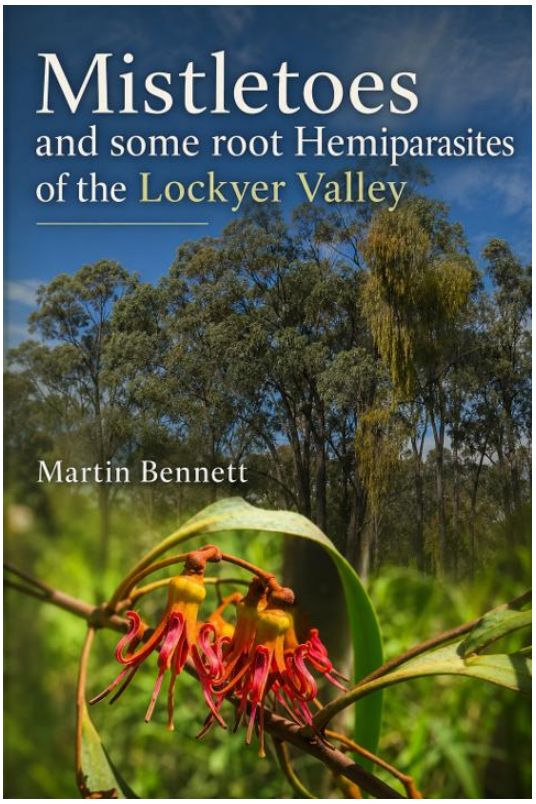
Further Reading

Mistletoe as a keystone resource: an experimental test

The Biology of Mistletoe - the nutrient rich leaf fall of Mistletoes

Early notice…

Martin's book on Mistletoes is nearing completion and, when printed, will be available through LUCI. We'll keep you posted on progress.



Flora snippets and photos by Martin Bennett

Pimelea linifolia, Rice flower, flowering in September and often after rain, comes in white, light pink and dark pink, common on sandstone in the Helidon Hills.

Leionema obtusifolium, Helidon Hills waxflower, a threatened species under the State and Federal Acts, produces white flowers, and is only found in Helidon Hills and Crows Nest localities.

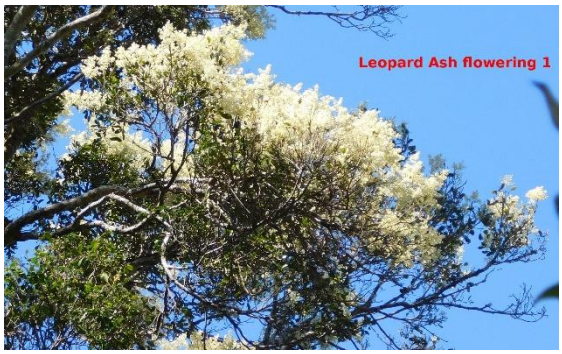
Billardiera rubens, Appleberry vine, the small tubular pale yellow pink flowers bearing a dark maroon fruit that ripens to yellow, and has a citrus like flavour. Very common in the Helidon Hills, especially noticeable after fires.

Xylomelum salicinum, Woody pear, a member of the Grevillea family, it forms creamy yellow cylindrical flowers and a large pear-shaped woody fruit.

Acacia leichhardtii, Leichhardts wattle, a 1.2m tally shrub with slightly recurved phyllodes, with a spiny tip, yellow flowers and hairy pods. Only found in Helidon Hills within SEQ.

Some recent sightings by LUCI members and friends…

Flowering *Capparis sarmentosa*, Scrambling caper. Photo Dougal Johnson.



Flowering *Flindersia collina*, Leopard Ash. Photo Dougal Johnson.

Diuris abbreviata, Lemon Doubletail, an orchid species endemic to eastern Australia. Photos Dougal Johnson.

Important numbers:

Wildlife carers Kath and Steph
0410 334 661

Macropod Carer Catherine Buchanen
041 370 7313

Bat Conservation & Rescue Qld Inc
0488 228 134

Phascolarctus cinereus, Koala. Photo K Shafferius

Tachyglossus aculeatus, Echidna. Photo Pam Pittaway

Morelia spilota, Carpet python, checking out our garage. Photo Pam Pittaway.

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 LUCI email list.
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