



“WCHL News” will be emailed out as usual and is also available from our Facebook group page and on the Brunswick Valley Landcare website. To be sure you don't miss out on events and news from a broader area, please refer to the Byron Shire Landcare and Dunecare newsletter. To subscribe or to look up current and archived editions, please go to <http://brunswickvalleylandcare.org.au/newsletters/>

Wilson's Creek Huonbrook Landcare News

The devastation in our Valleys continues to be ever present with daily reminders of landslips, altered water courses, weed proliferation and flood debris. A typical example is shown below with a view along the banks of Wilson's River. However, the eagle-eyed and the 'glass half full' amongst us might just catch a glimpse of the azure kingfisher (Shown enlarged on the right). Amongst the destruction comes a thing of beauty in a rare sighting of a most beautiful bird. How lucky we are to live here!



Invitation !!!

from Wilsons Creek Huonbrook Landcare

AGM and Christmas party (free drinks, BYO food)

Plus sale of bush regen. books and tools and trailer

*November 30th, 5:00 arrive, AGM 5:30, Sale 6:30, party 7pm.
Wilsons Creek Hall*



Photo Anne Jones

We have a trailer and contents of bush regen books and lots of tools and great equipment to be auctioned. To buy the trailer there is a 2 month opportunity (till January 30th 2023) to put in a bid for trailer via WCHL email address, wilsonscreeklandcare@yahoo.com.au . Please let us know if the trailer is being purchased for yourself or for community use. Some photos are attached below. It is currently unregistered. But in fair condition – needs a good clean and there's a little surface rust. Its 18 years old but has mostly been undercover. It's an enclosed 4x6 box trailer with hydraulic lids.

The contents include folding table, chairs, thermos, secateurs, folding saw, post hole shovel, solo spray unit, mattocks, axe, telescopic loppers, hatchet, electric drill and battery, augers for drills, shade cover for trailer, water testing equipment, star picket driver, long handled shovel. PPE - goggles, mask, earmuffs, chaps, helmet, visor, gloves. Red rainforest ID books and hand lenses.





Focus on flood repair

In 2014, the Richmond River was assessed as the most degraded of NSW's coastal catchments. Shock and horror reverberated and many conscious folks vowed to change the situation. Indeed, much work was already being done, further efforts followed, but unfortunately much of it has been undone by the recent floods.

In our part of the catchment, the valleys and waterways were in pretty good shape at the time, but all went downhill with the big wet and we are now faced with high sediment loads every time it rains, damaged native vegetation, weed regrowth and shallow, scoured out creek beds where once shaded deep pools provided cool water refuges for aquatic life during hot months.

What we can do:

- Participate in citizen science projects to track water quality, survey for aquatic invertebrates and do an assessment of the riparian vegetation on your creek banks
- Clean up hard rubbish and flood-dispersed weeds (we have a project running right now)
- Plant banks and riparian strips where revegetation is required
- Engage with the developing understanding of landslip repair
- Leave flood debris (logs and other dead vegetation) in place unless it is really in the way. It is important habitat.

No creek frontage? Revegetation of the wider catchment is vitally important for sponging up soil water, holding the soil and improving biodiversity values.

Advice is available from a number of sources, WCHL is a good starting point.

Subscribe to Richmond Riverkeeper <https://richmondriver.org.au> to keep up with all the news as programs develop across the catchment. You can also find them on Facebook.



We saw increased surface water flow causing damage to local vegetation during the big storms



Increased surface sediment or 'colluvial' flow entering our waterways



Richmond River Catchment Collaborative Partnership meeting

Post Landslide Plantings

Property 1

We in the Valley are certainly aware of the impacts of the 2022 rainfall and some of us face an altered landscape every day. The quandary of what to do to redo, fix or make better leads us into discussions of what to move (rocks, soil etc), what to do to make safe (bank stabilisation, support structures) and what to plant (endemic species, species able to cope with more rain and biodiversity). No one answer to be sure but a number of options!

One valley landowner, along with other keen valley residents recently applied themselves to a section of crucial waterway with a planting that addressed the questions stated above. Can't wait to see the results over the next year or two!



Shot showing bank after excavator work on water's edge



Shot a few hours later after planting, fertilising and mulching



How many did they plant? About that many!

Property 2



Drone shot after the landslide February 28 2022. Previously the area was clothed in green.



Planting into the slip. We planted with a handful of fertiliser into subsoil mud or, in other places sand with no organic matter. We chose a big range of seedlings. The main species suggested for the riparian zone were *Tristaniopsis laurina* (water gum), *Elaeocarpus grandis* (blue quandong) and *Lomandra hystrix* (creek mat rush). We did follow up with a seasonal watering a few times and have had good survival of the plants.

Wilsons Creek Huonbrook Landcare's projects

Breaking NEWS -Back from the Brink...Border Ranges Lined Fern!



This project is supported through funding from the Australian Government

In Conversation with Justin Mallee NPWS

Hello Justin

So, tell us why is this fern so special that the Commonwealth Government Priority species program has given WCHL \$183,500?

The Border Ranges Lined Fern (*Antrophyum austroqueenslandicum*) and its habitat are exceedingly rare. It's threatened by drought and climate change, and fewer than 50 plants remain in the world, with the majority of these in our local valleys in NSW.

On 11 August 2006 it was listed as Extinct in the Wild under the *Queensland Nature Conservation Act 1992* and the *Nature Conservation (Wildlife) Regulation 2006*.

But happily, the Border Ranges Lined Fern was re-discovered as a single population during a 2015 survey at Tyalgum in the Tweed and has now been found in our valley.

Wow Justin that is exciting! Where did the clever botanists find it?

The rediscovered species and population were found on a large streamside boulder with 65 individual plants back in 2015. The plants were of various sizes, some were fertile, with spore found. This means that the population can potentially increase.

What happened next?

The Queensland Herbarium visited the site confirming conclusively that the plants were Border Ranges Lined Ferns using microscopic comparison to the holotype (holotype is the single herbarium specimen that describes the features of the plant). Following this discovery in 2015 surveys were undertaken in potential habitat revealing another two small populations in the Nightcap Range.

I have heard that the fern is nicknamed "goldilocks" Why is that?

Well, the fern likes it not too hot, not too cold, and not too wet or dry! Due to the habitat specificity of this species, (it only likes andesite rocks), it is unlikely additional populations occur in surveyed areas. However, additional populations may be present in extremely remote habitat, i.e. a place that has been undisturbed, and further survey is warranted here.

How will this project help Goldilocks?

As part of the project, local botanists have been contracted to survey the sites and hopefully find new locations. Local bush regeneration contractors with expertise in working near threatened species will be employed to clear weeds such as Lantana.

The project will also work with the Australian Botanic Gardens Mt Annan (ABGMA). ABGMA will be investigating ways to store and propagate spores from Goldilocks. This will provide some insurance germplasm, should the wild populations continue to decline.

The project will concentrate on weed control around the habitat in the surrounds of Nightcap, Mount Jerusalem, and further north into the Tweed. Locations are kept secret to protect the threatened species from overzealous fern collectors.

Who is our Landcare group working with?

Specialist project partners (NSW National Parks and Wildlife Service, Queensland Parks and Wildlife Service, the Australian Botanic Gardens and Domain Trust) will be key to the success of the project. Goldilocks will be monitored and potentially propagated for expansion of the population.

Who should someone contact if they want to know more or may have the fern on their property?

Contact: Justin Mallee NPWS, Barbara Stewart WCHL Jo Green Project manager WCHL.
wilsonscreeklandcare@yahoo.com.au.



Data Logger placed on the Boulder at Upper Huonbrook with numerous Antrophyum ferns visible near top right of picture. The data logger measures temperature and humidity at regular intervals.

Community information session (Meet the Scientists)
Thursday evening 24th November at the Hall.
Detail soon, save the date

What is happening to the bamboo infestation on Koonyum Range Road?

The removal of a large section of the dense running bamboo forest will have been apparent to residents and passers-by over the last few months. We would like to provide some background about the project and its benefits for the environment and the community.

Bamboo is highly flammable and its removal is part of a project which aims to minimise the risks of hot summer wildfire, so protecting fire-sensitive rainforest on and adjacent to Koonyum Range. In addition, the spread of bamboo through native vegetation will be managed and the fire-adapted forests will be regenerated and restored.

How can we achieve these objectives? Now that a carefully chosen section of the bamboo forest has been felled and treated, a cool ecological burn is planned, to include land both in, and adjacent to, Mount Jerusalem National Park. Luckily, NSW National Parks and Wildlife Service (NPWS) was keen to burn the fire-dependent forest, so these works will be coordinated by NPWS and will be done under an approved burn plan. Of course, the timing and scheduling of the burn is dependent on weather conditions – a challenge! Residents will be contacted closer to proposed burn dates expected in 2023.

Wilsons Creek Huonbrook Landcare has worked with NSW NPWS, Dr Andy Baker (Wildsite Ecological Services), Northern Rivers Ecological, Madhima Gulgan, Bushland Restoration Services and private landholders to develop this valuable collaboration.

Funding for bamboo removal and related information sessions and material has been provided by Landcare Australia and Landcare NSW through their Bushfire Recovery program (project now completed) and the NSW Environmental Trust as part of a project to restore and protect rainforest as the climate changes (four-year project).

Thanks to all involved for their hard work and in-kind contributions. We have some great networks and a lot of good luck.

To find out more please contact WCHL by phone or email.



Please never plant running bamboo and consider very carefully if planning to grow clumping bamboo.

"This project has been assisted by the NSW Government through its Environmental Trust."



“Linkages” project winds up

Celebrations for our project team at the end of our three-year project (plus extension) will take the form of a walk and talk inspection of one of the project worksites, followed by some festive refreshments.

Grandly titled “Upper Wilsons and Coopers Creek Catchments: Linkages in the Headwaters”, we shorten it to “Linkages”, which nicely reflects our overall objectives of adding to large areas of connected rainforest habitat in our valleys. It’s our best defence against whatever the climate throws at us.

The project has delivered 16 ha of advanced regenerating rainforest, mainly converted from Lantana and Camphor forests.

We think it's a great achievement, considering the challenges of the last few years. We managed to get in a socially distanced site visit early on, and hope to do more such events as conditions and our lives settle down.

Big thanks to the NSW Environmental Trust for funding (\$99,700), landholders from eight participating properties, who contributed in-kind labour and/or cash, contract bush regenerators and project manager and our volunteer committee who keep it all running.





"This project has been assisted by the NSW Government through its Environmental Trust."





Photo: Jo Green

Top of the Range Glossy Black-Cockatoo nest hollow project

Monitoring and maintenance of the nest hollows and the camera equipment continues.

Unfortunately, several of the cameras suffered water damage in Feb/March and these consequently failed in the next rotation. More issues arose in the wild winds of 30 & 31 May. Several cameras were blown out of trees, SD cards were filled in 48 hours with nothing but blowing leaves, one of the wooden hollows flipped upside down, another blew out of range of the wildlife camera.

We have not recorded any Glossy Black-Cockatoo activity since early in the year. Although the birds were very much present in the project area when we began installing our artificial hollows last year, we have now concluded our first full breeding season with no evidence of the birds' presence on the Range. It isn't just in our area, Glossy Black-Cockatoo sightings have been very few and far between across the entire Northern Rivers this year. All the more reason for our project!

Is it the weather? Compared with twelve months ago, there has been a marked absence of food cones on either of the GBC food species - *Allocasuarina torulosa* or *Allocasuarina littoralis* - in our project sites. One of the few things that we do know about Glossy Black-Cockatoos is that they **must** nest within easy commute of a substantial, high quality food supply.

We have recently added three [3] sound monitors to our monitoring equipment. They are already detecting other threatened species: **Sooty Owls** [*Tyto tenebricosa*] and **Masked Owls** [*Tyto novaehollandiae*], both listed as vulnerable in NSW, as well as our precious Albert's Lyrebird [*Menura alberti*].

On a more positive note, we are seeing plenty of other wildlife:

Feathertail Gliders, Common Brushtail Possums, Mountain Brushtail Possums, Sugar Gliders, Tawny Frogmouths, Yellow-Tailed Black-Cockatoos, Crimson Rosellas, Grey Shrike-Thrush, Lewin's Honeyeaters, to name a few.

Is this a Feral Cat?

John Wynberg



We took this photo through our bedroom window 16th of October, 2022. It's the first sighting we have had of a cat on our property and certainly one so close to our home. Recently we did participate in a Cat Roaming Survey conducted by the University of New England and had a camera mounted on what we thought were animal trails, however our camera didn't record any sighting of feral cats. Apart from the cat above the only other cat we have seen is a black cat roaming around on Cedar Road, Wilsons Creek late January, 2022.

The first thing I did was post the above picture of the cat on our neighbourhood messenger group asking if anyone owns it or knows it? Our messenger group covers pretty much every neighbour within 1kilometer from our home. I had two separate comments come back that this cat was sighted on two other properties, so it's obviously roaming far and wide. Equally no one owns it or knows that it belongs to someone. I am therefore assuming it is a feral cat. (It certainly looks like one)

My next step was to report it on the Feral Scan Pest Mapping App. This App allows you to record a sighting of a (sadly) large variety of feral pest animals. They collect the data and hopefully some use can come from it.

So now where do we go? Well one answer is to have a professional trapper come and set traps and catch it and euthanise it. This is a reasonably expensive exercise for an individual homeowner being at least \$250 plus dollars. There is the option of buying your own trap and learning how to set it and then monitoring it very closely. There's information that suggests if you accidentally catch a native animal it may well die from the stress of being caught. Also, if you do catch a cat how do you get rid of it. Take it to a vet? Can Council help?

These questions and more will be answered in the next newsletter as I head further down the rabbit hole of feral cats and what to do about them.

Seed Bombs

A possible solution to landslip restoration, particularly where access is difficult and/or dangerous is the use of seed bombs. A seed bomb (see images below) contains various native species seeds, clay, potting mix and seasoil all combined into a small rissole-sized ball which is then dried. The dried and ready seed bombs can then be dropped, thrown, tossed or even catapulted into the desired area.

Over time and with decent rain (!), most if not all the seed bombs will breakdown, releasing the seeds into fertile territory with the hope of ensuing growth.

Seed bombs can contain a variety of seeds depending on region, area, aspect, conditions and desired species diversity and bank stabilising requirements.

The seed bombs illustrated were made at a Conservation Volunteers Australia workshop day earlier in the year and despatched onto a landslip area in Wilsons Creek in October 2022. A subsequent edition of the Landcare Newsletter will hopefully show some 'After' images!



Landslide occurred after Feb 2022 rainfall bringing down many tons of soil and rock debris taking out many newly planted trees. Area is now showing significant weed growth and some native regeneration



Seed bombs in place ready for moisture, sun and time.

Dingoes



Last edition we showed a dingo image taken on wildlife cameras in the Valley. Here are a few more and, as you can see, it's not just night-time activity.

Did you know that archaeological findings show that dingoes have been on mainland Australia for at least 3,200 years and it's estimated that the dingo ancestors travelled from SE Asia at least 4,000 years ago.

Wildlife cameras picking up dingo movement in Wilsons Creek (all in July-October 2022)

A new 2021 study led by UNSW shows almost all wild canines in Australia are genetically more than half dingo



From the Australian Museum:

Dingoes rarely bark. They tend to howl particularly at night in an effort to attract pack members or ward off intruders. Other forms of communication include scent-rubbing, defecation and urinating on objects such as grass tussocks to mark territorial boundaries.

Frog Hotel

Want more of these?



Maybe you need one of these?



Newly constructed frog hotel with water plants getting established. Just waiting for the guests to arrive!

Green tree frogs make 'barking' sounds to attract mates and to advertise a location, usually after rain (so you should be hearing a few this year) and if they're in a gutter or pipe the sound is intensified.

Females vary in size up to 10cm whilst the slightly smaller males usually max out at 7-8cm.

They will eat a variety of insects including spiders

Want to build your own? Check out:

<https://wildlife.org.au/how-to-build-a-frog-hotel/>
<https://www.facebook.com/watch/?v=1146017379226095>

‘Before and Afters’

This has been a new segment in two of our recent newsletters that has generated positive comments, however, we paused in the last edition with landslides and changing water courses altering the face of the valley. But, “We’re Back!” A few shots illustrating the changes possible with a lot of work and effort however the results speak for themselves!

If you have some great before and after shots and a timeframe, please send them through to wilsonscreeklandcare@yahoo.com.au No names, no addresses!



May 2020



Nov 2022



This is the steep slope on the south of the house

We had a lantana contour band about 50m wide and so steep it is hard to stand up. We cleared it in 2017 and planted a koala corridor across the contour. This area had some fire in the understory in 2019 but has now established a canopy. The area avoided landslip in 2022.



The slope in 2022 with full canopy



Mid 2019



2022



Early 2019



2022

Tree of the Month: MYRTLE EBONY

Graham Watson

Myrtle Ebony (*Diospyros pentamera*) is one of my favourite rainforest trees. I have previously written that I regard Giant Water Gum as a member of the rainforest tree aristocracy, well, if that's the case, then Myrtle Ebony is a fine and upstanding member of the rainforest tree proletariat! There are no bells, whistles or red flags associated with this species: it has no pretensions for special conservation efforts as it is widely distributed; it doesn't flout any ostentatious trunk buttresses; it doesn't bother with a spectacular floral display; its dark red, astringent fruits are barely edible; and its tiny canopy crown is one of the least impressive in the entire rainforest. Its little crown of leaves is similar to how a child, or perhaps an architect, might draw a tree. Indeed, it has sometimes been called the "Doll's Head Tree" because of its almost comical compact crown.

But what I like is that you can't mistake its very dark grey, straight trunk for any other species in its habitat and I find its little globular/triangular crown of leaves utterly charming and which, presumably, photosynthesises very effectively for the tree to grow right to the forest canopy often attaining a height of 40 metres.

Myrtle Ebony which is placed in the Ebenaceæ family was originally named *Cargillia pentamera* by Ferdinand von Mueller and the Rev. William Woolls in 1864. I am uncertain of the origin of that genus name which was erected by Robert Brown in 1810 but "*pentamera*" refers to the five-lobed floral calyx. Two years later, von Mueller himself renamed the tree *Maba pentamera* before he and Woolls republished the name as *Diospyros pentamera* in 1866. Subsequently, a rationalisation of all the genera in the Ebenaceæ resulted in just the two genera of *Euclea* (Africa) and *Diospyros* being retained for the family.

Diospyros is a huge genus with at least 700 species distributed through Africa, Asia and South America but just six occur in Australia and of those, five are found in the rainforests of northern NSW. The genus can be divided into two groups: the timber species (notably *D. ebenum* famous for its black wood) and the edible fruit species (notably *D. kaki*, the edible persimmon) and it is this latter group into which all our local species are included.



The small crown of a 25m tall Myrtle Ebony at Huonbrook

Myrtle Ebony itself is found from the Bateman's Bay area in southern NSW all the way to the Atherton Tableland in all rainforest types except Cool Temperate Rainforest. The species is dioecious, that is, male and female flowers occur on separate trees but the small white flowers are hard to see so you only know if you have a female tree when bits of fruit show up on the ground – the results of heavy predation by rainforest pigeons, bowerbirds, catbirds, currawongs, figbirds and others.

The distinctive trunk of this species is dark grey, sometimes nearly black, and is quite rough. This rough texture suits the germination and growth of numerous epiphytic ferns which often cluster just below and in the shelter of the small canopy.

The fruits, if you ever see one, are dark red to black, globular to egg-shaped. You are much more likely to come across the brown seeds dropped by the birds onto the forest floor.

The leaves are simple, alternate and are slightly shiny but mostly dull dark green on the upper surface but it is the yellowish, grey-green lower surface which is so characteristic and distinctive that you can identify this species from that colour alone.

The branchlets supporting the leaves are sort of zig-zag shaped (see photos) which makes the leaves align into two rows, an arrangement which botanists call two-ranked. This is also a helpful identifying characteristic for this species.



The older dark grey stems of Myrtle Ebony often develop channelling which is apparent in this specimen at Huonbrook. The stem on the right is a Bangalow Palm.



The slightly glossy upper surface of the leaves and the zig-zag shape of the branchlet.



The distinctive yellowish, grey-green of the undersurface of the leaves and their two-ranked arrangement.

This tree is always a worthwhile addition to any rainforest plot, if only for the popularity of its fruit with the larger rainforest birds. But as anyone who is familiar with how slowly persimmon trees grow will know, they take a long time to catch up to those fast-growing cedars, quandongs and celerywoods but, with their little canopy crowns, catch up they inevitably will.

Contact us: Barbara 66840378, Julie 66840242 Email wilsonscreeklandcare@yahoo.com.au

WCHL is on Facebook



To become a member of our Facebook group, go into Facebook, search for Wilsons Creek Huonbrook Landcare and request to join. Any member can approve you. Alternatively, you can go to the URL below: <http://www.facebook.com/groups/551428364915585/?ref=ts> Once accepted as a member, feel free to post photos and stories, ask and answer questions and check in regularly.