

GREETINGS LANDCARERS

The last month of summer has been very busy. BVL is in the process of planning our smart farms work shops in collaboration with Byron Shire Council.

We have community plantings planned for our Environmental trust project on the Mooibal Spur and our 11th Annual Mother's Day planting.

We are also in the final stages of developing the Climate Resilient Landscapes Planting Guide for the Northern Rivers through the Increasing Resilience to Climate Change (IRCC) Community Grant provided by the Department of Planning, Industry and Environment (DPIE)

The project also includes cross sectional planting at Heritage Park, audits of existing plantings, carbon testing from several sites and proposed field day at Heritage Park in April with an accompanying short video.



Cross sectional planting at Heritage Park 2020 part of the IRCC project





Media release

Byron Shire Council



COUNCIL HITS 100 PERCENT RENEWABLE ENERGY TARGET FIVE YEARS EARLY

Byron Shire Council is now sourcing 60 percent of its total electricity needs from one wind farm in the NSW Southern Tablelands. The remaining 40 percent is being sourced from certified GreenPower projects.

The two-year wind energy contract, which began on 1 January, means that Council has now achieved its 100 percent renewable energy target five years ahead of its 2027 goal.

“In 2017, Council resolved to source all of the energy it needs, for operational purposes, through renewable sources by 2027 and it is great news that this target has already been achieved,” Byron Shire Mayor, Michael Lyon said.

“Achieving 100 percent of our energy needs from renewable sources also means we are making good progress towards our objectives in the Net Zero Emissions Action Plan for Council Operations 2025.”

“It certainly gives me hope that when we put our minds to it, we can make real changes to address climate change and reduce our carbon footprint,” the Mayor said.

“Demand-management is very important too, and to that end, we are reducing our energy usage across Council this year by implementing new energy efficiency measures at the Mullumbimby Administration Building, continuing our innovative pump station renewal program and progressing the bulk lighting upgrade for Byron’s street lights,” he said.

Find out more at Net Zero Projects - Byron Shire Council (nsw.gov.au)



THANK YOU!



Thank you Stone & Wood!
BVL is the February inGrained fundraising recipient in Byron!

Stone and Wood's inGrained Foundation partners with aligned charities to create progress in the local community whilst also being able to provide timely support when the local community needs it most.

By establishing the inGrained Foundation, Stone & Wood have created a formal separate entity and have made the commitment to annually donate \$1/100L of beer brewed to the not-for-profit going forward.

As a national not-for-profit, the inGrained Foundation's mission is to support grassroots, environmental and social charities in the local areas where funds are donated.

By fostering long-term partnerships and responding to urgent situations of need, it aims to create sustained positive change by directing funds to support the community where and when it's needed.



AMAZING ANIMALS

Swedish firm deploys crows to pick up cigarette butts Clever corvids become newest weapon in Södertälje's war against street litter by Daniel Boffey

Whilst these crows are amazing and incredibly smart, humans could be trained to be respectful and bin their butts!

Crows are being recruited to pick up discarded cigarette butts from the streets and squares of a Swedish city as part of a cost-cutting drive.

The wild birds carry out the task as they receive a little food for every butt that they deposit in a bespoke machine designed by a startup in Södertälje, near Stockholm.

<https://www.theguardian.com/environment/2022/feb/01/swedish-crows-pick-up-cigarette-butts-litter>



FOOD FOR THOUGHT

WOULD YOU EAT INSECTS? YOUNG AUSTRALIANS ARE HUNGRY FOR THEM - BUT THEY'RE HARD TO FIND

SBS BY ILIAS BAKALLA

A recent study by RMIT found just over half of those surveyed would be likely to eat insects as a protein alternative, with that number increasing to more than 80 percent in those who've already tried insects.

Insects have a protein content similar to traditional sources of protein like cattle. They are also a rich source of fats and high energy minerals like iron. Insects use up less land, energy and water than cattle.

<https://www.sbs.com.au/news/the-feed/would-you-eat-insects-young-australians-are-hungry-for-them-but-they-re-hard-to-find>



NEW DISCOVERIES

GHOSTLY MONKEYS AND SUCCULENT BAMBOO AMONG 224 NEWLY DISCOVERED MEKONG REGION SPECIES

ABC NEWS

Reptiles, frogs, newts, fish and 155 plants are among the new species discovered in the Greater Mekong region.

Scientists identify more than 3,000 new species in the region since 1997.

WWF said the 224 discoveries underlined the rich biodiversity of the Mekong region encompassing Thailand, Myanmar, Laos, Cambodia and Vietnam. A testament to the resilience of nature in surviving in fragmented and degraded natural habitats.

<https://www.abc.net.au/news/2022-01-27/ghostly-monkey-among-224-new-mekong-region-species/100784274>



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GOLD COAST BOTANIST DISCOVERS NEW RAINFOREST TREE SPECIES 'MINUTES FROM M1'

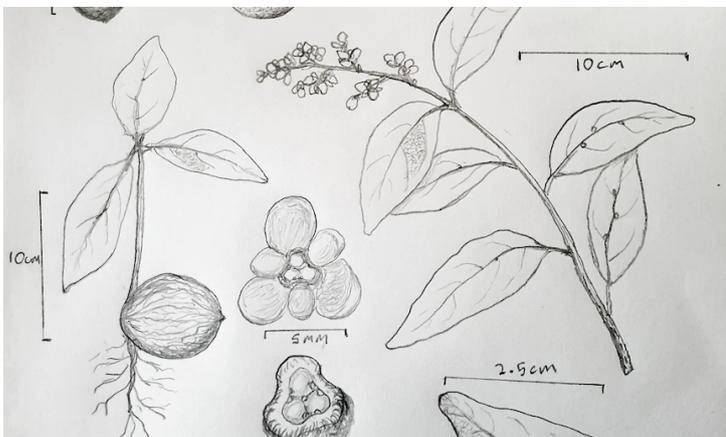
ABC Gold Coast By Tom Forbes, Nicole Dyer and Kirsten Webster

Gold Coast botanist Lui Weber discovered new rainforest tree species, the Wongawallan walnut (*Endiandra wongawallanensis*), in his backyard.

The tree has a large fruit and there is a theory that its seeds were dispersed by now-extinct megafauna which disappeared in southern Queensland about 10,000 years ago.

Now cassowaries fill this role.

<https://www.abc.net.au/news/2022-02-10/new-tree-species-discovery-on-gold-coast/100812328>



Botanists have to describe the anatomy of the newly discovered plant and how it differs from other species. (Supplied: Lui Weber)



Botanists believe the large Wongawallan walnut seeds were dispersed by extinct megafauna. (Supplied: Lui Webber)

BACK FROM THE BRINK

FROGS SHOW MACQUARIE MARSHES WETLAND RECOVERY IN FULL SWING AFTER DROUGHT

ABC WESTERN PLAINS BY ROBYN HERRON

Conservation officers have been monitoring the mating calls of several species of frogs at 14 sites at the marshes in the NSW north west, and they have heard activity at 12 of them.

Tim Hosking from the Office of Planning and Environment said the iconic chorus of frogs was music to his ears.

"They are the engine of the ecosystem. They are the first and biggest biomass invertebrate in terms of actual non-bugs in the system," he said.



A spotted marsh frog is among the species found in the Macquarie Marshes. (Supplied: Office of Planning and Environment)

<https://www.abc.net.au/news/2022-02-10/frogs-a-sign-of-wetland-recovery-at-macquarie-marshes/100817736>



GROWN IN FLOATING OCEAN POOLS, BABY CORALS SET FREE ON DAMAGED REEFS

SOUTHERN CROSS UNIVERSITY

Lizard Island in the Great Barrier Reef's far north has received its first delivery of millions of Coral IVF babies to help accelerate the recovery of damaged areas of reef.

The deployment exercise over three days saw nearly ten million coral larvae released onto four reef locations around Lizard Island using a combination of techniques including concentrated delivery directly onto target reefs, dispersed larval clouds, and robotics.

The research at Lizard Island is co-led by Southern Cross University, CSIRO and QUT as part of the Reef Restoration and Adaptation Program.



Professor Peter Harrison watches as QUT's AI-enabled multi-purpose reef-restoration robot boat releases coral larvae onto a damaged section of reef around Lizard Island.

<https://www.scu.edu.au/engage/news/latest-news/2021/grown-in-floating-ocean-pools-baby-coral-set-free-on-damaged-reefs.php>

LOW QUANTITIES OF MARINE DEBRIS AT THE NORTHERN NINGALOO MARINE PARK, WESTERN AUSTRALIA, INFLUENCED BY VISITATION AND ACCESSIBILITY

Authors: Emma L. Westlake, Emma Lawrence, Natalie Travaglione, Peter Barnes, Damian P. Thomson

Low marine debris levels were observed at the northern Ningaloo Marine Park (0.004–0.02 items m⁻²) composed of 61% plastic.

Land-based and general sources accounted for almost 90% of marine debris.

Lower debris levels with increased visitation and distance from access points suggestive of environmental stewardship.

Debris levels were not significantly different inside and outside of sanctuary zones.

Future management opportunities exist to further reduce marine debris, predominantly through education initiatives.



Marine ecologists Emma Westlake (left) and Natalie Travaglione surveying northern Ningaloo. (Supplied: Nick Thake/CSIRO)



The Ningaloo Coast is a UNESCO World Heritage-listed area. (Supplied: Tourism WA)



The community's appreciation for Ningaloo is a major reason for low levels of marine debris. (Supplied: Blue Media Exmouth)

<https://www.sciencedirect.com/science/article/pii/S0025326X2101328X>

<https://www.abc.net.au/news/2022-01-28/low-levels-of-marine-debris-in-ningaloo/100783006>

DO YOU HAVE CARRONIA VINE ON YOUR PROPERTY?

The survival of the Southern Pink Underwing Moth (*Phyllodes imperialis* subsp. *smithersi*) is not only dependent on high quality, well established rainforest, its caterpillar is solely dependent on one species of vine for its food - the Carronia vine (*Carronia multiseptata*).

As part of the recovery plan for this endangered moth species, Natura Pacific, along with Native Plants Queensland's Dr Bonni Yee, Barung Landcare, the University of Queensland and Dr Don Sands are aiming to propagate up to 10,000 young Carronia vines using seed collections along with cutting propagation techniques in our labs.

How can you get involved?

If you know you have Carronia vine on your property, now is the time to head out and check to see if the vines you have are fruiting. The fruit will be in clusters of small green berries (possibly hard to detect if the vine is up in the canopy), but when they are ripe they will turn a bright pink colour and drop to the ground, ready for collection. Please find attached some key photos to help you identify the plants, fruits and moth.

If you see the vine fruiting, we invite you to let our team know, so when they ripen we can work with you to collect seed. Please don't collect all the seed as the fruit is a food source for other animals so there is a procedure that needs to take place.

Recovery programs like this need everyone on board and it's the community that is going to make a big difference to the future survival of this species. If you can help, please be in touch.

Contact myself by return email, or Megan Lee from Barung Landcare at megan@barunglandcare.org.au or Cam Burton at cam@barunglandcare.org.au if you can help with seed collections.

Also contact Mark Nadir Runkovski mark.runkovski@natura-pacific.com

For more information about the project visit www.barunglandcare.org.au/rainforest-resilience/ and watch our short documentary here: <https://www.youtube.com/watch?v=HKktUTJLhP4>



CLIMATE

WIND, SOLAR AND WATER CHASE COAL AND GAS OUT OF GRID, AND RESHAPE PRICE AND DEMAND

Giles Parkinson

Australia's transition to a renewables dominated grid accelerated in the December quarter, with a record share of wind, solar and hydro, gas and black coal falling to levels not seen for nearly two decades or more, and new benchmarks for minimum demand and emissions reductions.

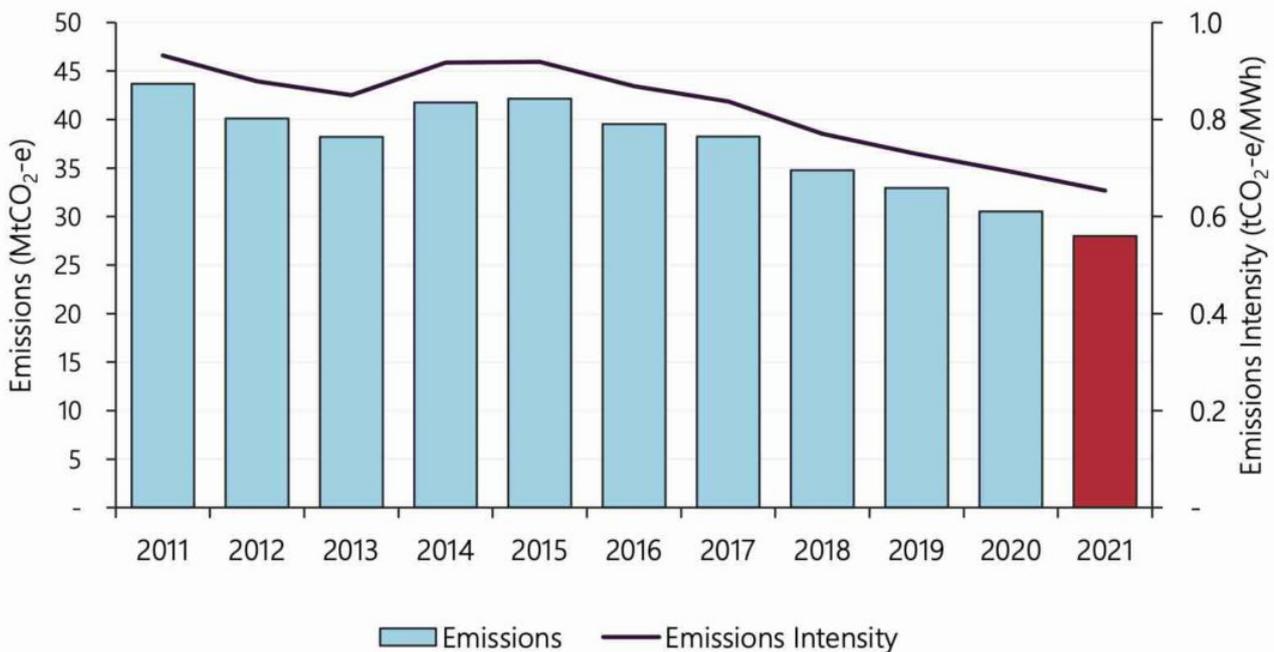
The latest data from the Australian Energy Market Operator, in its latest Quarterly Energy Dynamics report, shows that renewables reached a 34.9 per cent share of generation in Australia's main National Electricity Market, with gas slumping to its lowest level since 2003 and black coal to its lowest since 1998.

The combination of increased renewables and moderate demand – thanks to lower temperatures caused by La Nina – led to a number of other benchmarks, much of them during daytime hours thanks to the growing influence of the surging amounts of solar PV on the nation's rooftops.

<https://reneweconomy.com.au/wind-solar-and-water-chase-coal-and-gas-out-of-grid-and-reshape-price-and-demand/>

Figure 45 Record low quarterly emissions

Quarterly NEM emissions and emissions intensity (Q4s)



DIRECT AIR CAPTURE MACHINES SUCK CARBON DIOXIDE FROM THE ATMOSPHERE.

ARE THEY PART OF THE SOLUTION TO CLIMATE CHANGE?

ABC Science By technology reporter James Purtill

On a barren lava plateau in Iceland stands an entirely new kind of industrial facility that sucks carbon dioxide from the air and traps it in stone.

The world's first commercial direct air capture (DAC) plant is designed to remove thousands of tonnes of greenhouse gas every year and then inject it deep underground; however it would have to be scaled up enormously to be useful.

Technology like this has been mooted for years but faced huge engineering challenges and, until recently, was dismissed as a costly fantasy.

<https://www.abc.net.au/news/science/2022-01-28/direct-air-capture-dac-machines-carbon-dioxide-climate-change/100777966>



Iceland DAC plant first in the world to be operated commercially. (Supplied: Climeworks)



Supplied: Carbon Engineering)



Mike Cannon-Brookes lodges AGL takeover bid to 'accelerate coal exit'

By Nick Toscano

Under the bid, Brookfield and Mr Cannon-Brookes have specified that AGL's target for "net zero" emissions — requiring the company to remove as much carbon dioxide from the atmosphere as it emits — would be brought forward by 12 years, forcing it to fast-track its closure of coal-fired power stations by 2035, according to sources familiar with the offer but not authorised to speak publicly.

The prospect of earlier closures would continue the trend of private companies bringing forward the retirements of ageing coal-fired power plants despite the federal Coalition government's insistence that the fossil fuel is crucial to ensure ongoing reliable and cheap electricity.

<https://www.smh.com.au/business/companies/brookfield-d-cannon-brookes-launch-bid-for-agl-to-accelerate-coal-exit-20220220-p59y25.html>



Credit: Paul Jones



Mike Cannon-Brookes. CREDIT:WOLTER PEETERS

REGENERATIVE AGRICULTURE

Regenerative Agriculture – concepts for North Coast farming

Free online university 'short course' commencing March 2022

- ✓ Interested in learning about 'regenerative agriculture'....?
- ✓ Want to understand more so you can **make positive changes** in land management practice....?
- ✓ Could your farm operation improve its **soil and water management** to be more resilient to change....?

This free online short course aims to increase knowledge and capability to better support farmers in understanding and adopting positive changes to shift towards the regenerative future of farming. This course provides a taste of the numerous options available to farmers and land managers through regenerative agriculture.

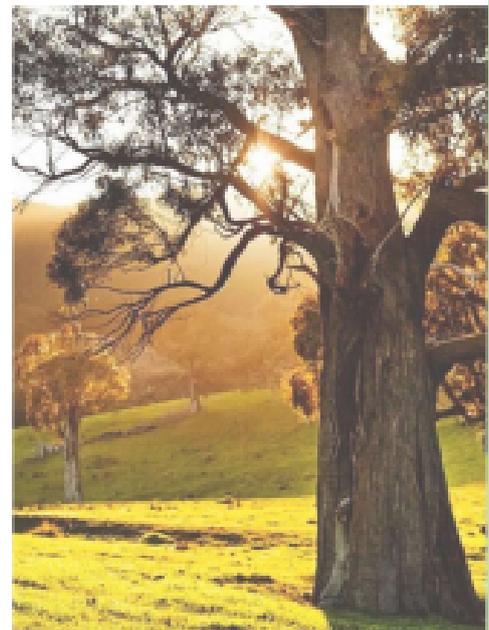
Where: Online: study at your own pace with support and Q&A via weekly (1 hour) Zoom 'drop-in' sessions and an online discussion forum.

Who: Developed with **Charles Sturt University** and delivered online by Dr Jonathon Howard - an academic at CSU with extensive experience in natural resources, sustainable water management & rural communities.

When: commencing in March; self-paced learning approx. 35 hours over 12 weeks. **Register Now – enrolments closing Feb 25th 2022..!**

The course carries no formal accreditation. A 'Certificate of Completion' from CSU is awarded on conclusion of the course and receiving at least 12 out of 14 in a multiple-choice test.

A 'formative self-assessment task' offers a continuous approach to considering how students might apply what they are learning to their own practice – either in their own farm operation or in a farm plan scenario they can create.



The course provides the online resources such as text, videos and podcasts necessary to **understand the key concepts** that underpin regenerative agriculture. Some topics may also have '**want to delve deeper?**' sections with links to enhance your learning or pursue an area of interest in greater detail. Students can choose between two streams of learning – either **grazing or horticulture**.

Learning outcomes:

- an introductory knowledge of traditional agriculture enterprises;
- the need for sustainable agriculture, and the principles that underpin regenerative agriculture;
- an overview of a range of regenerative agricultural techniques/practices;
- consideration of regenerative approaches as they relate to a particular circumstance or situation;
- connection to avenues for further learning in areas of interest post-course.

>> Register now >>>>

The course is free of charge. You can register to enrol **by 25th Feb** at <https://www.sticktickets.com.au/313D1>



Further information contact North Coast Regional Landcare: josh@northcoastlandcare.net.au or 0419 966 278



National
Landcare
Program



Charles Sturt
University



North Coast
Regional
Landcare

This project is supported by the Department of Agriculture and Water Resources, through funding from the Australian Government's National Landcare Program

EVENTS AND SEMINARS

BYRON BIRD BUDDIES SCHEDULE

February Dates

Tuesday 22nd 16.00 (4pm)

Byron Wetlands – meet at the gate and park outside- Contact Vicki - davvix1@gmail.com or
0482466350

BBB – evening Survey - for BSC report - Must Register

Wed. 23rd 08.00 -13.00

To be advised richmondbrunswickbirdwatchers@gmail.com

RBB – next outing - decided at the end of previous survey.

Sunday 27th 09.00 – 12.00

Big Scrub celebration day - guided walk with rainforest insights.

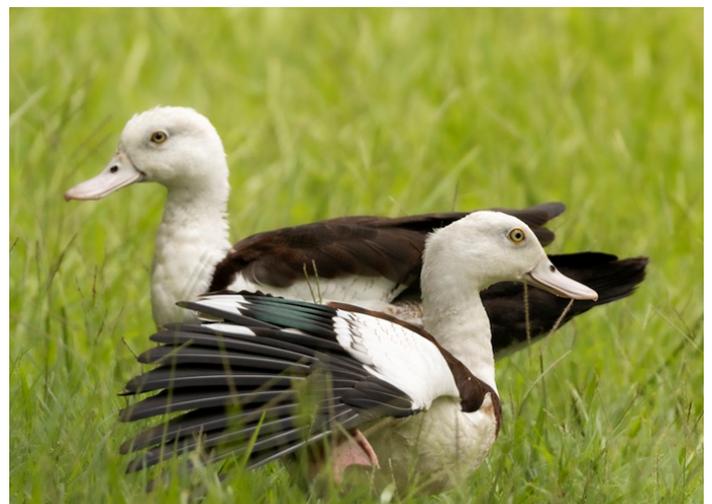
Due to Covid - presentation will be decided on the day.

Bring own morning tea.

Register with Big Scrub <https://www.bigscrubrainforest.org>
23rd-big-scrub-rainforest-day/

BBB & Big Scrub (Michael Brown) - Must Register

Can register here byronbirdbuddy@gmail.com if any issue with BS website.



Radjar Shelducks - recently recorded at Byron Wetlands for the first time - unfortunately only for a few hours - photo Hans Wohlmuth

Presented by
Big Scrub
Landcare

23RD ANNUAL

Big Scrub RAINFOREST DAY

24TH - 27TH FEBRUARY 2022

EXPERIENCE THE MANY
VOICES
OF THE RAINFOREST

NATURE CONNECTION | INDIGENOUS LEARNING
GUIDED WALKS | ECOLOGY TALKS
NURSERY VISITS | TREE PLANTINGS

WWW.BIGSCRUBRAINFOREST.ORG

The annual Big Scrub Rainforest Day is on for 2022

Check out the Big Scrub Landcare website for details

Big Scrub Landcare Day events for weekend of Feb 26/27th

<https://www.bigscrubrainforest.org/23rd-big-scrub-rainforest-day/>



Big Scrub Landcare
The Voice of the Rainforest



BIG SCRUB REGENERATION PTY. LTD.





Interested in sailing and marine research?

Supplementary Applications are now invited to fill available capacity in the 2023-24 Granted Voyage schedule on research vessel (RV) Investigator.

Seven voyages in this schedule are open for Supplementary Applications for fully funded grants of sea time.

Applications are invited from marine researchers employed by Australian research organisations and their international collaborators.

Potential applicants should refer to the Marine National Facility (MNF) Supplementary Applications web page for voyage information and to make an application. Applications will use the online MAPS portal.

<https://mnf.csiro.au/en/Get-on-board/Apply-for-sea-time/Supplementary-applications>

The Supplementary Application call will close at 11:59pm AEDT on 3 March 2022.

All applications must be submitted in MAPS by this time.

The Granted Voyage Program is fully funded by the Australian Government to provide access to sea time on CSIRO research vessel Investigator for research of national benefit.

This research is enabled through the National Collaborative Research Infrastructure Strategy (NCRIS).



WEED OF THE MONTH

Arrow Head Vine *Syngonium podophyllum*

This plant makes a hardy indoor plant and this is where it should be kept, do not get complacent and put it outside for fresh air. It will sneak off and invade your garden and surrounding bushland.

Syngonium climbs vegetation often reaching 5-10 m or more in height when climbing larger trees and is difficult to control.

A creeping or climbing plant with leaves that vary in size, shape and colour depending on their position on the plant.

The lower leaves are generally arrowhead-shaped and either entirely green or with some silvery-white markings.

Control

Foliar spray with Glyphosate 1:50 + Metsulfuron methyl 1g/ 10L + surfactant / penetrant like Pulse

Scrape stem as high as possible apply 1:1 Glyphosate + 1g Metsulfuron methyl /L with applicator or paint brush.

This weed spreads by cuttings, do not mow or brush cut to control as this will encourage spread.

Do not dump unwanted plants in reserves, place in green waste bin.



Credit: Brisbane City Council



Syngonium make great indoor plants, will even grow in water without any growing medium.

Thus the risk this plant poses to riparian zones.



<https://weeds.brisbane.qld.gov.au/weeds/syngonium>

WORKING BEES

-Why not get out and get involved in one of our local groups?

For all Landcare Working Bees please wear protective clothing - long pants, long-sleeved shirt, closed-in shoes, hat, gloves and bring water, sunscreen, and insect repellent. Please always contact the group co-ordinators before attending a working bee as plans do change!

Bangalow Land and Rivercare, Bangalow

WHEN: every Saturday 8:30am

WHERE: find out from

CONTACT: Noelene Plummer bangalowlandcare@gmail.com 0431200638 66874470

Green and Clean Awareness Team, Byron Bay

WHEN: 3rd Sunday of the month 9:00am

WHERE: Meet Main Beach, Byron Bay

CONTACT: Veda Turner vedaturner@gmail.com 0427 857 991

Heritage Park Landcare, Mullumbimby

WHEN: Saturdays 9:00am – 11:00 am

WHERE: Heritage Park, Mullumbimby

CONTACT: Diana Hughes bromspot@gmail.com

Jinangong Landcare, Ocean Shores

WHEN: 1st Sunday of the month

WHERE: The Tunnel Road, Ocean Shores

CONTACT: Ian Parer ianparer@hotmail.com

Mullum Town Landcare, Mullumbimby

WHEN: last Sunday of the month

WHERE: find out from John Tann

CONTACT: John Tann johntann99@gmail.com

Ocean Shores Landcare, Ocean Shores

WHEN: each Friday at 8.30 – 11.00 am (8.00am DST)

WHERE: corner of Yallakool Drive and Warrambool Road, Ocean Shores

CONTACT: David Kemp dnkemp77@gmail.com 0427 650 861

Tallowood Ridge Locality Landcare, Tallowood Ridge Mullumbimby

WHEN: Second Saturday of the month from 3pm (winter), 4pm (summer).

WHERE: Gathering Tree Pocket Park, Cockatoo Cres Tallowood Ridge Estate

CONTACT: Joanne McMurtry jmcmurtry@bigpond.com

South New Brighton Dunecare

WHEN: 1st Friday of the month 1:30pm - 4:30pm

WHERE: Meet at southern end of the Esplanade at the Strand beach access point.

CONTACT: Robyn Bolden robyn.bolden@optusnet.com.au 6680 1970

Suffolk Park Dunecare

WHEN: 1st Saturday of the month

CONTACT: Helen Brown hellyh@bigpond.com 6685 4964

Tyagarah Landcare

WHEN: Each Thursday 9:00am – 11:00am

WHERE: 23 Prestons Lane, Tyagarah

CONTACT: Bela Allen bela_allen@yahoo.com 6684 7113

Can't find a group near you? We have many other groups who meet on an ad hoc basis (contact us for more details) or if there isn't an existing group in your neighbourhood or you are interested in looking after a particular area, BVL can help you to form a locality group under the BVL umbrella.

LINKS

- Arakwal <http://arakwal.com.au/>
- Border Rangers Alliance http://www.greasternranges.org.au/border_ranges/overview/overview
- Bangalow Koalas <http://www.bangalowkoalas.com.au/>
- Bangalow River and Landcare <http://www.bangalowlandcare.org.au/>
- Big Scrub Landcare <https://www.bigscrubrainforest.org.au/>
- Brunswick Valley Landcare <http://www.brunswickvalleylandcare.org.au/>
- Byron Bird Buddies <http://www.byronbirdbuddies.com.au/>
- Byron Community College <http://www.byroncollege.org.au/>
- Byron Shire Council <http://www.byron.nsw.gov.au/>
- EnviTE www.envite.org.au
- Environmental Trust <http://www.environment.nsw.gov.au/grants/envtrust.htm>
- Friends of the Koala www.friendsofthekoala.org
- Federal Landcare Inc federalandcare@gmail.com
- Local Land Services www.northcoast.lls.nsw.gov.au
- North Coast Local Land Services <http://northcoast.lls.nsw.gov.au/>
- Border Ranges Richmond Valley Landcare www.brrvln.org.au
- Mullumbimby Community Gardens <http://mullumcommunitygarden.wordpress.com/>
- North Coast Nature <http://www.northcoastnature.org.au/>
- Richmond Landcare Inc. <http://www.richmondlandcare.org/>
- Rous County Council (formerly Far North Coast Weeds) <http://rous.nsw.gov.au/>
- Soilcare http://www.soilcare.org_
- Tweed Landcare Inc. <http://www.tweedlandcare.org.au/>
- Wilson's Creek Huonbrook Landcare <http://www.wilsonscreeklandcare.mullum.com.au/>

**For information about Landcare or other natural resource issues in Byron shire please contact
Landcare Support Officer, Alison Ratcliffe 6626 7028
(Mon, Tues, Wed)**

aratcliffe@byron.nsw.gov.au

Project Officer, Rochelle Merdith 6626 7201 rmerdith@byron.nsw.gov.au

www.brunswickvalleylandcare.org.au

