



Newsletter for Landcare and Dunecare in Byron Shire



<http://www.brunswickvalleylandcare.org.au/>

June 2019

Farm Forestry Field Day by Alison Ratcliffe



A fantastic day was held at Lune de Sang cabinet timber plantation on Friday 14th June with over 60 people enjoying a full day of talks and walks with experts.

There was a felling and milling demonstration from the Lune de Sang Silviculture team and a chance to view the solar kilns. There was a warm welcome from Andy and Diedre Plummer, the land owners, followed by an overview of the Lune de Sang history and objectives by manager Karl Vikstrom.

Kevin Glencross & John Grant from Southern Cross University have been doing research on the site and we looked at 2 different plantings, one from 2008 and one from 2011 that have been managed in very different ways with regards to pruning. They shared information on soil carbon, soil chemistry and the how different management techniques are affecting the soils.



Johanna Kempff, NSW DPI, talked to the group about DPI forestry Plantation definitions, the registration process and benefits of being a registered plantation.

Mark Dunphy, Firewheel Nursery, shared his extensive knowledge on the process of selecting and stocking species, genetic provenance and "the perfect nursery customer"!

Travis from the Lune de Sang talked about his observations of which trees were happy growing next to each other and which were the "bullies" of the pack.

Martin Novak, Subtropical Farm Forestry Association talked about the journey that the industry has been on over the last few years, marketing, growth areas, observations for new ventures, and lessons learnt.



We then moved to under the fig tree and Bunya Halasz & Kevin Glencross talked about how other countries combine forestry with food production. How agro forestry could work in this area and the benefits to soil health and farm productivity. The day finished looking at the newest planting on the property with the rows going up and down the slope instead of following the contours.



Koala Awareness Field Day



Caring for our Koalas
Caring for our shared future

**A free Koala information
seminar
Friday 21st June, 2019
12 pm – 4 pm
@
Gondwana Sanctuary
Tyagarah**



The day will include:

- ✓ A delicious vegetarian lunch and afternoon tea, with gluten free options available.
- ✓ Informative seminar on helping save our endangered Koala population presented by Friends of the Koala.
- ✓ A guided walk through the beautiful Gondwana Sanctuary to observe the ongoing Koala food tree plantings.

**Bookings are essential
As places are limited**

Please go to
<https://koalacare.eventbrite.com.au>



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





The 2019 Regional Conference is co-hosted with Friends of the Koala and Nature Conservation Council of NSW. The aims of the regional conference are to:

- Provide an opportunity for networking between NCC members, executive, staff, representatives and local conservationists;
- Provide an opportunity for information sharing, skills development and collaborative planning on key policy and campaign issues; and
- Strengthen working relationships between existing NCC members and to provide an opportunity for potential members to learn more about our work.

The conference program will run all day Saturday, with a conference dinner Saturday night and a field trip on Sunday (which may come at an additional fee). Please indicate your interest in the Saturday night dinner when registering. The program will include panels with expert speakers on threats to nature in the area and the opportunities for being involved in the solution.

If the cost is prohibitive to attending, or you need assistance with travel costs, please email outreach@nature.org.au

Sat., 22/06/2019, 8:45 am – Sun., 23/06/2019, 2:45 pm AEST

Location: Lismore Showgrounds, 116 Alexandra Parade, North Lismore, NSW 2480

<https://www.eventbrite.com.au/e/2019-regional-conference-tickets-61624725212?fbclid=IwAR01db5i7DzGX6mKcd03VuCNFbcMmyvvJPAXb1DtlZ3JnbSV4dLSAyLu2M>

Paddy's Creek Landcare group



It doesn't exist ... yet!

But together we can make it happen.

Are you interested in:

- Creating a pocket of rainforest on your doorstep
- Improving the dog-walking area
- Protecting your drinking water source
- Meeting neighbours
- Getting the kids involved in nature
- Flying fox management plan

You are invited to an information session and short working bee on **Saturday 22 June, 8.45-10.30 am.**

Meet: at the Elkhorn Place playground (near the footbridge)

Paddy's Creek runs through the council reserve between Palm Tree Crescent and Colin Street.

Byron Shire Council will be there to discuss and get community feedback on the flying fox management plan.

We'd love to hear what you would like to see happen, if you're interested in getting involved, and what day, time and frequency would suit you for working bees

Cakes and tea provided!

RSVP or expressions of interest to Paul Glennie on 0411264794 // 66871074 // paulglennie@yahoo.co.uk // 15 Palm Tree Crescent

Bangalow Land and Rivercare have done an incredible job around the town for decades. But with no fresh blood, the group may wind down the community work at the end of the year. One option is for smaller groups to take over the care of smaller areas, like Paddy's Creek, the sports grounds, and the new planting near All Souls Church.

Rough plan for the morning: 9-9.15 quick intro; 9.15-9.55 short working bee; 10-10.30 cake, chat about establishing the group and chance to discuss the flying fox management plan with council.



BANGALOW KOALAS

KOALA TREE PLANTING WORKING BEE SATURDAY 29TH JUNE 2019

NO Weeding, **NO** Digging, **NO** Whipper Snipping, just planting trees in pre-dug holes and mulching – **EASY!**

There are 1,500 koala trees to plant so Bangalow Koalas is having another Working Bee. If you want to volunteer a couple of hours of your time then please see below for details. **PLUS** as a thank you for your time and hard work there is a sausage sizzle thanks to Bangalow Lions and sandwiches thanks to Julie Frankham.

What you need to bring and wear:

- Trowels, drinking water, sunscreen.
- Long sleeves, long pants, gloves, fully enclosed footwear, hat.

Planting 1,500 Koala Trees

Date Sat 29th June 2019, 9am start

Where 199 Myocum Road, Ewingsdale

RSVP: Linda Sparrow on
twodogsmedia@optusnet.com.au

Thank you for the help and support of:



Open Day

Wollongbar Primary Industries Institute

Saturday 24th August 2019

10am – 3pm

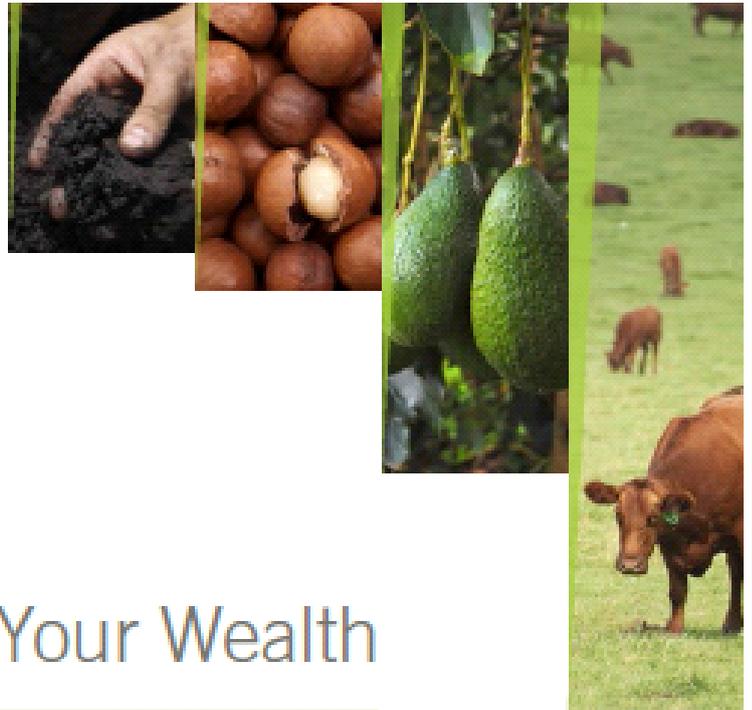


- ◆ Guided tours
- ◆ Historical displays
- ◆ Latest research
- ◆ Kids activities
- ◆ Food

Know Your Soils Wollongbar Masterclass by [NSW Department of Primary Industries](#)

Tuesday, 20 August 2019, 1:30 – 3:30 pm

This masterclass for those with a sound understanding of the topic, will investigate healthy soils by exploring biological, chemical and physical attributes that work together to give a soils its unique characteristics. We will describe some of the things advisors can recommend and farmers can do to build the health of their soil, including the use of organic amendments, balancing fertilisers, optimising the functions of soil carbon, and the use of ground covers and green manures. Please contact Abigail Jenkins for more details at abigail.jenkins@dpi.nsw.gov.au or 02 66261357



Soil Health and Your Wealth

FREE Half-Day Seminar – LISMORE

Your soil is your greatest asset. It is the essence of your productive potential and profitability. Soil health is also key to stress-free farming. The common catch cry is, "our soils aren't what they used to be". In this fascinating free half-day seminar, internationally acclaimed soil specialist, Graeme Salt, will help you reclaim resilience and profitability on the farm.

Next Seminar: Wednesday 3rd July, 2019



Graeme Salt

Graeme conducts seminar tours across the globe each year. He trains soil scientists and Ag departments and he often consults at ministerial level. He is the author of two books and over 300 articles, and his weekly blog, *Nutrition Matters*, is enjoyed by thousands. Graeme is a sought-after conference speaker and his presentations are often described as "life changing". Don't miss this rare opportunity to learn from this accomplished teacher.

Here are some of the lessons shared:

- 1) You will understand the mechanics of **Nutrition Farming®** and how your improved management of minerals, microbes and humus can turn around your enterprise.
- 2) You will discover that **humus** is the cornerstone of soil fertility. Discover how we lost 2/3 of our humus, and acquire the strategies to rebuild organic matter on your farm.
- 3) You will recognise the role of **mineral balancing** in creating disease-resilient soils and crops. Discover how key mineral ratios in the soil, and in plant tissue, can change your cropping outcome.
- 4) You will learn about the use of specific **microbe inoculums** to solve problems and boost yield. You will also discover how to support your existing soil life, including earthworms.
- 5) You will understand why **multi-species, cocktail cover crops** can be a powerful fertility building tool.
- 6) You will discover the many benefits of **in-field crop monitoring**, including leaf analyses. You will also learn how to use hand-held tools like the refractometer, the sap pH meter and K and N meters to provide invaluable instant feedback.
- 7) You will also learn **drought management strategies** to improve your resilience amidst increasingly unstable climatic conditions.

**Bookings are Essential
Register Today →**

Cost: FREE
Date: Wednesday 3rd July, 2019
Time: 8:30am – 1:00pm
Location: John's Big Shed
1410 Bentley Road
Bentley NSW 2480

To Register contact Rita at NTS:
07 5472 9900
rita@nutri-tech.com.au

Morning Tea provided

Limited Seats – Registration Essential!

5th - 9th August 2019

KORINDERIE RIDGE COMMUNITY
BUSH REGEN WEEK

Join our community for Bush Regeneration Week in northern NSW. We offer spectacular Pacific Ocean views, delicious meals, accommodation and sightseeing opportunities in exchange for help removing lantana.



For further information and to book your spot:
EMAIL: regenweek@korinderie.org.au



The June issue of Village Eco News is now available.
<http://brunswickvalleylandcare.org.au/wp-content/uploads/2016/06/Village-Eco-News-Issue-32-June-2019.pdf>



The May edition of the Wilsons Creek Huonbrook Landcare newsletter is now available with lots of local information for those people living in the valleys.

<http://brunswickvalleylandcare.org.au/wp-content/uploads/2016/06/In-the-Valley-May-2019-final.pdf>

Bush Regeneration Course, Byron Community College, Mullumbimby



Dates: Mondays, 5th August – 2nd September 2019 9.00am - 3.00pm

Subsidised fee: \$0* (plus resource fee of \$80)

Are you interested in caring for native and natural environments? In this short course you will learn about bush regeneration. Most people associate bush regeneration with weed removal. Learn about the impact of weeds, stormwater and altered fire regimes and the basic skills required to assist in the maintenance of bushland areas. Involving both theory and hands-on practical components you will learn how to restore biodiversity and improve habitat quality on your property or somewhere else.

* Please speak to our admin staff for further information regarding eligibility criteria on 02 6684 3374.

**2019
NEW SOUTH WALES
LANDCARE AWARDS**

NOMINATIONS OPEN NOW

NOMINATIONS CLOSE: WEDNESDAY 3 JULY 2019

LANDCAREAUSTRALIA.ORG.AU/LANDCAREAWARDS2019

Australian Government | National Landcare Program | Landcare Australia | NSW Government | Local Land Services | Landcare New South Wales

Eucalypt photo competition

The Threatened Species Recovery Hub is undertaking a nationwide assessment of the conservation status of Australian eucalypts.

To mark this significant milestone in eucalypt conservation the hub is holding a photo competition to celebrate the beauty and diversity of Australia's eucalypts. The competition is open until Monday 22 July 2019.

<http://www.nespthreatenedspecies.edu.au/news/eucalypt-photo-competition>





We are pleased to let you know we have launched a [new online community wildlife survey](#). We are asking people across New South Wales to share their knowledge of local wildlife – including koalas.

We would like to know where you have seen the following ten animals over the last two years:

We value your knowledge of the wildlife in your area, including your understanding about their health and threats. It would be great if you could help us get a better understanding of wildlife across NSW by completing the survey at www.environment.nsw.gov.au/wildlife-survey. We expect it will take 10 to 20 minutes to complete. Even if you have not seen any of the animals, there are other questions in the survey where your knowledge helps.

We also need your help sharing the survey with your networks. We have attached some communication materials that could help you do this, perhaps via a newsletter or on social media.

The Community Wildlife Survey is being funded as part of the [NSW Koala Strategy](#). Data from the survey can help identify sites for priority action under the NSW Koala Strategy as well as forming part of koala monitoring across the State.

We encourage you to complete the survey and forward the survey to others who have data to share. Please let us know if we can assist with these communications in any way.

Kind regards, The NSW Koala Strategy team



National Waterbug Blitz

Host a waterbug workshop this Spring & support nationalwaterbugblitz! NRM, councils & community groups please contact us for EOI
info@waterbugblitz.org.au <https://www.waterbugblitz.org.au/>



National Landcare Update

The National Landcare Network NLN and Landcare Australia LA are taking steps to move forward with the proposed merger to create a unified national Landcare body. Work on the proposed NLN / LA merger is progressing, albeit slowly.

National Landcare Network release paper - 'The Value of Community Landcare: A Literature Review'



The National Landcare Network (NLN) recently commissioned a literature review to encourage support for Landcare funding prior to the Federal election. Titled *'The Value of Community Landcare: A Literature Review'*, it will also be used by the NLN in forthcoming discussions with new Ministers regarding on-going support for Landcare and proposed changes to the National Landcare Program 2.

This is an interesting document which may be used by groups at the state, regional and local level to support funding applications and in negotiations / consultations with State and local government.

[To read the review click here.](#)

STORIES to inspire and give you hope

Weed Field Days by Josie Banens



Image: We had a great turn out and a stunning sunny day overlooking Byron Bay at Hayter's Hill Farm credit: Alison Ratcliffe

Brunswick Valley Landcare hosted two well-attended, practical skills-based training field days on best practice management of paddock and fence line weeds on 10th and 14th May.

The field days – held at Hayters Hill Farm in Hayters Hill and 'Ananadavale' in Main Arm – focused on educating rural landholders about integrated weed management including biological control,

improving soil and pasture health, and best practice herbicide application methods for Giant Parramatta grass, Groundsel Bush, Fireweed, Camphor Laurel and Lantana.

Presentations and hands-on demonstrations were given by Rous County Council Biosecurity Extension Officer Kim Curtis, NSW Landcare award-winner Jeremy Bradley of Beechwood Biological Solutions and Soilcare's Biological Educator David Forrest.

Fourth generation farmers David and Hugh Trevor-Jones spoke about past and present weed management on their family's stunning poultry, egg, cattle and pig property at Hayters Hill Farm, overlooking Byron Bay. Management includes incorporating biocontrol using the naturally occurring (endemic) fungus *Nigrospora oryzae* which causes crown rot in weedy Sporobolus grasses, and for which they used specifically to control Giant Parramatta grass invasions.



Image: Jeremy Bradley in the thick(et) of it at Hayter's Hill Farm

Kim Curtis spoke about weed biosecurity priorities and landholder duties, and best practice herbicide application methods including giving a Camphor laurel stem injection - axe cut demonstration.

Jeremy Bradley gave an enthusiastic and engaging presentation on his work making *Nigrospora* available to consumers for farm-scale regeneration of their paddocks. This included a walk to a patch of crown-rot diseased Giant Parramatta grass and a demonstration of Camphor laurel stem-injection – drill and fill by Hayter's Hill Farm's own bush regeneration expert Nick Davies.



Image: Jeremy Bradley showing an orange coloured crown rot-diseased



At Ananadavale, new co-owner Leeroy Mills discussed the community’s recent weed control efforts and his intention to better understand and manage weeds with coordinated and cooperative control on his shared property.

Soilcare’s David Forrest gave a good overview of the importance of good soil health to reduce weeds and gave a demonstration of a soil health test using the soil test score sheet (tests available on Soilcare website) in one



Image: David Forrest and participants and Ananadavale

Image: Participants watch a soil health test

of the paddocks being grazed by cattle.

Participants at both field days were provided with weed identification and monitoring information, including the NSW WeedWise app, and supplied with the matching DPI weed control handbook.



Department of Primary Industries

This project is supported by the NSW Department of Primary Industries and Landcare NSW through funding received from the Established Pest Animals and Weeds initiative, part of the Australian Government’s Agricultural Competitiveness White Paper, the government’s plan for stronger farmers and a stronger economy.



Order of Australia for Dr. Tony Parkes by Big Scrub Landcare

Big Scrub Landcare President Dr. Tony Parkes has been appointed an Officer of the Order of Australia (AO) for distinguished service to conservation and the environment through the restoration of subtropical rainforest in northern New South Wales.



Tony commented “I am delighted that this award recognises services to conservation. I accept this award on behalf of the many extraordinary people who are dedicated to saving from extinction, Australia’s many endangered species and ecosystems, particularly critically endangered lowland subtropical rainforest and its rich biodiversity”.

Dr. Tony Parkes co-founded Big Scrub Landcare in 1993 and has been its President since its founding. He was a Banksia Award recipient for Community Environmental Leadership in 2016 and the NSW Individual Landcarer of the Year in 2001 and 2015. He is the Founder and Executive Chairman of the Big Scrub Foundation, was the co-founder and Chair (1999-2006) of Rainforest Rescue, the Chairman (1993-2011) and Vice-Chair (2012-2014) of Envite Environment. Other appointments include the Chair of the Richmond Regional Vegetation Committee and the Vice-Chair of the Richmond Catchment Management Committee.

Outstanding achievements of Big Scrub Landcare under Dr. Parkes’ leadership include:

Delivering 55 large scale projects at a value of \$6 million for rainforest restoration on both private and public land including 10 of the 11 Big Scrub remnants on National Parks land. These projects have contributed to the ecological restoration of more than 90 lowland rainforest remnants from Grafton to the Qld border with a total area of more than 300ha and providing 7000 on-the-ground work days for bush regenerators.

Facilitating the planting of 2 million trees across the Big Scrub region, leading to the re-establishment of more than 500 ha of rainforest and increasing the area of rainforest by 60%.

Presenting 20 annual Big Scrub Rainforest Days with over 25,000 attendees and publishing books and comprehensive manuals on rainforest restoration and weed identification and control in subtropical rainforests of Eastern Australia.

The listing in 2011 of Lowland Rainforest of Subtropical Australia as a critically endangered ecological community under the EPBC Act. Tony led the team of volunteer scientific advisors who prepared the nomination and contributed to its assessment.

Working in partnership with over 60 private landholders, businesses, NSW NPWS, Councils and other government agencies.

The Order of Australia is the principal means of recognising outstanding members of the community at a national level. The honour of Officer of the Order of Australia recognises the commitment and service of people like Dr. Parkes to building a better and more positive Australia.

Listen to the ABC radio interview [here](#).

https://www.bigscrubrainforest.org/order_of_australia_dr_tony_parkes/

Hope yet for Northern Rivers Koalas by ABC North Coast

Despite a declaration from the Australian Koala Foundation that the iconic species is now 'functionally extinct', a group of passionate locals are pushing ahead with action to help protect and preserve the Northern Rivers koala population. And people are turning out in droves to help them. This morning Bangalow Koalas planted 2000 trees on a property at Talofa, bringing to 12,000 in the past 18 months the total number of koala trees planted along a mapped koala corridor running from Byron Bay to Lismore. There's a great video here

https://m.facebook.com/story.php?story_fbid=2396193983735149&id=107794399241797

Environmental restoration can promote 'good' bacteria over 'bad'

by Kate Anderton, B.Sc.

A new study has shown that restoring environments to include a wider range of species can promote 'good' bacteria over 'bad' - with potential benefits for human health.

University of Adelaide researchers report, in the journal *Environment International*, that degraded, low biodiversity land and soils tend to harbor more 'opportunistic' bacteria, while healthy, biodiverse ecosystems favor more stable and specialist bacteria. They found that the bacterial communities more commonly found in degraded landscapes had "potential pathogenic character", with many in the same genera as prominent disease-causing bacteria *Bacillus*, *Clostridium*, *Enterobacter*, *Legionella* and *Pseudomonas*.

Restoring a more biodiverse ecosystem, however, changed the bacterial composition towards more potentially immune-boosting microbial diversity.

There is a growing body of evidence associating human health with green space around people's homes, and environmental microbes provide a likely connection between a healthy ecosystem and human health. However evidence of tangible mechanistic links between human and environmental health is still lacking, although we know that soil microbes are an important part of airborne microbial communities generated from a particular environment. We wanted to see if there were particular bacteria that might be representative of ecological restoration, or the change from degraded state to a more biodiverse, natural state."

The researchers analyzed soil bacterial communities from a restoration site with a progression of environments from cleared, degraded land to a restored, more biodiverse, natural reference ecosystem.

They compared their findings with data from over 200 samples from across Australia which had been assigned as disturbed or natural soils, and found consistent patterns in the proportions of opportunistic versus stable bacteria.

"What this work has shown is the potential for reducing airborne pathogens around us by restoring city environments to be more biodiverse and natural," says senior author Professor Phil Weinstein, Professorial Research Fellow with the School of Biological Sciences. "While we have not shown a direct link between increased abundance of these particular bacteria with increased human disease, more opportunistic bacteria in the environment is likely to bring more exposure to airborne pathogens and higher rates of infections in susceptible individuals. In healthy, biodiverse ecosystems this risk is reduced."

The researchers say their study also points to a new way of measuring soil and ecosystem health using groups of bacteria as summary biological indicators.

<https://www.news-medical.net/news/20190522/Environmental-restoration-can-promote-good-bacteria-over-bad.aspx?fbclid=IwAR0HoLCW138JK-zCkWqGj9ys-kkpcKX36wsjGMc90BS0wcoPn0n3WGIDgI0>

Much shorter working weeks needed to tackle climate crisis by Matthew Taylor

Photo: Commuters on Waterloo Bridge during Extinction Rebellion climate protests in London Amer Ghazza

People across [Europe](#) will need to work drastically fewer hours to avoid disastrous climate heating unless there is a radical decarbonising of the economy, according to a study.



The research, [from thinktank Autonomy](#), shows workers in the UK would need to move to nine-hour weeks to keep the country on track to avoid more than 2C of heating at current carbon intensity levels. Similar reductions were found to be necessary in Sweden and Germany. The findings are based on OECD and UN data on greenhouse gas emissions per industry in the three countries. It found that at current carbon levels, all three would require a drastic reduction in working hours as well as urgent measures to decarbonise the economy to prevent climate breakdown.

Will Stronge, the director of Autonomy, said the research highlighted the need to include reductions in working hours as part of the efforts to address the [climate emergency](#).

"Becoming a green, sustainable society will require a number of strategies – a shorter working week being just one of them," he said. "This paper and the other nascent research in the field should give us plenty of food for thought when we consider how urgent a Green New Deal is and what it should look like." To read the rest of this article visit

https://www.theguardian.com/environment/2019/may/22/working-fewer-hours-could-help-tackle-climate-crisis-study?fbclid=IwAR0kam5xtWrc-uVZwpdszF0Ht5e74I2UgZ82jymVE7RBWrDNOv_Hm2_gek

Rebuilt Wetlands Can Protect Shorelines Better Than Walls

By [Rowan Jacobsen](#)

Surprising data show that in many places marshes protect shorelines better than walls and are cheaper to construct.

Scientists are perfecting techniques for rebuilding tattered wetlands, creating custom configurations for individual shorelines.



Governments and disaster planners are starting to give more consideration to living shorelines, and money to restore them is rising.

On August 27, 2011, Hurricane Irene crashed into North Carolina, eviscerating the Outer Banks. The storm dumped rain shin-high and hurled three-meter storm surges against the barrier island shores that faced the mainland, destroying roads and 1,100 homes.

After the storm, a young ecologist then at the University of North Carolina at Chapel Hill named Rachel K. Gittman decided to survey the affected areas. Gittman had worked as an environmental consultant for the U.S. Navy on a shoreline-stabilization project and had been shocked to discover how little information existed on coastal resilience. “The more I researched, the more I realized that we just don’t know very much,” she explains. “So much policy and management is being made without the underlying science.” She decided to make shorelines her specialty.

What Gittman found was eye-opening. Along the hard-hit shorelines, three quarters of the bulkheads were damaged. The walls, typically concrete and about two meters high, are the standard homeowner defense against the sea in many parts of the country. Yet none of the natural marsh shorelines were impaired. The marshes, which extended 10 to 40 meters from the shore, had lost no sediment or elevation from Irene. Although the storm initially reduced the density of their vegetation by more than a third, a year later the greenery had bounced back and was as thick as ever in many cases.

<https://www.scientificamerican.com/article/rebuilt-wetlands-can-protect-shorelines-better-than-walls/>

REGENERATIVE AGRICULTURE



Research Partnership Opportunity



Southern Cross University and The Regenerative Agricultural

Alliance are offering **research partnership opportunities** for THREE innovative regenerative agriculture projects.

CALLING FOR RESEARCH IDEAS

Got a research idea that will advance the industry, is regenerative in nature, and has the potential to deliver **real-world tangible results**?

We want to hear from you!

We are offering THREE ORGANISATIONS the opportunity to partner with Southern Cross University and have their research investment matched dollar for dollar. The research partnerships aim to encourage sustainable, science and practice-based innovation in Australia’s agricultural sector and to support a thriving farming community and generate broader economic returns for regional, rural and remote Australia.

HOW TO PITCH YOUR IDEA

At this stage, we only need a short 100 word summary of your project idea.

Contact Regen Ag Alliance Stakeholder Manager, Claire Quince, with your research idea:

Email claire.quince@scu.edu.au or phone on 02 6622 3113.

CSIRO proposes new technique to fight climate change on farm by The Australian Farmer.

THE CSIRO has proposed a new technique to clean the atmosphere of methane, the second most powerful greenhouse gas produced by people. Methane has a significantly greater impact than carbon dioxide in warming the planet over the first 20 years of its molecular life. Methane emissions from human activities are now greater than from all natural sources combined. Read the [full story...](#)

Project Pioneer Case Study by RCS Australia

Improving the condition of grazing land has been at the heart of an ambitious five-year plan from a young Queensland couple, which has transformed the management of a sweeping 33,200 hectare beef cattle operation.

Bristow and Ureisha Hughes manage 'Strathalbyn Station' near Bowen, grazing around 6,500 head of breeding stock with Wagyu, Brahman and Red Poll genetics. The station has a mix of soil types and a diversity of grasses and legumes.

Close to the Great Barrier Reef, Strathalbyn Station is almost a catchment in its own right, with Bonnie Doon and King Creeks running through the property, along with 28 kilometres of Burdekin River frontage, all of which is bordered by mountain ranges.

The station is part of a larger grazing operation called 'Wentworth Cattle Co', working in conjunction with three other properties across Central Queensland that are owned by Bristow's parents.

MANAGEMENT REIMAGINED

As a young farming family, Bristow and Ureisha, together with their two small children, brought to Strathalbyn an eagerness to learn and a willingness to question traditional onfarm practices. Bristow's parents had worked with Resource Consulting Services (RCS) for around 25 years, and in 2016 Bristow and Ureisha signed on to Project Pioneer to build on these foundations.

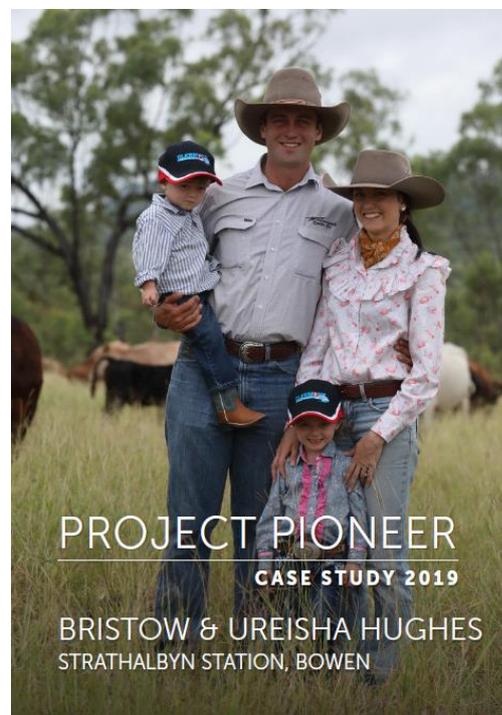
The new approach built on strategic watering point placement, which had been underway since 2004, while a new fencing regime provided the extra ingredient needed to transform land utilisation and grazing.

"The big turning point for us was putting together a five-year plan allowing us to implement large-scale development strategies that have completely changed the way we graze, and the type of animals we graze – it's a whole new way of looking at things," Bristow said.

Key changes included the construction of 150 km of fence lines, laying 90 km of pipe, installing 60 troughs and 25 new tanks to create a dense network of watering points, which reduced grazing 'hot spots' and ensured more even distribution of grazing pressure.

"There was so much under-utilisation of parts of the property before and over-use in other areas, so we've basically been able to even out how we use the country, and this has allowed us to better care for the topsoil and the animals," Bristow said.

Changes in the breed composition of the cattle run on Strathalbyn, high demand for Wagyu beef, good seasonal conditions up until 2017, and a strong cattle market in general has further accelerated on-farm improvements.



“Also of great benefit to our progress has been using all the resources available, including working more closely with scientists, external grants to help us access more knowledge and benchmarking information, all of which has helped to facilitate evidence-based decision making,” Bristow said.

“It’s critical as graziers that we work together with all stakeholders and take a holistic approach to everything we do. In doing this, we’ve also been able to protect the Great Barrier Reef. I think in the past, agriculture has been given a bad rap for its impact on the environment, but this shows we are closing the gap on that perception through these types of results.”

BETTER RESULTS THROUGH A NEW MINDSET

The results at Strathalbyn show that better environmental outcomes need not come at the expense of business objectives. Production has already increased by more than a quarter after just two years of a five-year implementation plan. Additional gains are expected as the transformation continues.

“We’ve gone from branding 3,500 calves to, in the last two years, branding 4,300 calves with significantly lower rainfall, and have increased the carrying capacity of the property by 1,500 head per year,” Bristow said.

“At the same time, we are having a positive impact on the Reef by boosting the ground cover of the whole property, and this has been achieved by increasing the number of paddocks and water points to allow us to better utilise some areas while resting others.

“Greater ground cover has also allowed us to heal small gullies and reduce run off dramatically, and we have significantly less sediment leaving the property which is very rewarding.”

As they reflect on the early wins from their new strategy, the Hughes see no limit on the gains that can be made to both production and environmental outcomes.

“In terms of the long-term benefits, I just don’t know where the ceiling is, but I can’t see there ever being a point where you stop looking for more ways to improve – it’s been a complete change of mindset,” Bristow said.

“It’s critical as graziers that we work together with all stakeholders and take a holistic approach to everything we do.

In doing this, we’ve also been able to protect the Great Barrier Reef. In the past, agriculture has been given a bad rap for its impact on the environment, but... we are closing the gap on that perception through these types of results.”

“We’re also now more resilient in the dry times and make better use of what we have in the good seasons, so we’re able to better look after our land.”

This change of mindset is evident across the entire business, and it’s reflected in all measures of performance.

“We have better financial literacy, a better understanding of how a business should be operated, better land, grass and animal management, an increase in branding rates and breeder retention through increased conception rates, and better use of nutritional insights,” Bristow said.

“We’re growing more grass and retaining ground cover, and for us that means making more money. “The better we can look after our land the better it will look after us.”

A HUMAN STORY

One of the surprising results of Project Pioneer has been the growth of staff capacity and their personal connection to the business as progress has unfolded. A clear plan has made employees and contractors feel part of the process and allowed them to celebrate in the positive changes and results.

“Our new management plan has really given people something to look forward to, and everyone feels a sense of accomplishment when we meet an end goal,” Bristow said.

“I believe we are definitely achieving more buy-in from employees, they’re excited to see how the land and animals have improved through the hard work they have contributed to the infrastructure improvements.”

“Our new management plan has really given people something to look forward to, and everyone feels a sense of accomplishment when we meet an end goal,”

A BIG FUTURE

As Bristow reflects on the rapid changes over the last three years, he can see further targets being hit over the coming years, by tapping into the key themes of managing and balancing grazing pressure, and increasing water efficiency.

“Three years ago, we had 14 main paddocks and four holding paddocks – now we have 49!” he said.

“Over the next five years I would expect to at least double that and, as a result, increase carrying capacity by another 1,500 head through better grazing management and land utilisation.

“Our long-term plan is to have 50,000 head by the time I am 50, so that obviously includes expansion beyond Strathalbyn. Our strategy is to invest in places that are underdeveloped and underutilised, and to implement our learnings and hands-on experience here to help the country realise its full potential.”

<https://www.rcsaustralia.com.au/project-pioneer/producer-stories/hughes/>

Land for Wildlife



Cracking Native Seed Germination by Gardening Australia

Josh is propagating native plants from seeds. You can't collect native seeds from the wild without a licence but they are available to buy online.

Some species become dormant so they survive until the conditions are right for them to germinate. Josh shows us a few ways to wake up the seeds from dormancy.

Methods include:

Heat Treatment – with nearly boiling water. Josh has seeds of Black Coral Pea (*Kennedia nigricans*), and a white-flowering variety of native sarsaparilla (*Hardenbergia violacea* 'Alba'), which are both members of the pea or Fabaceae family; many have hard seed coats. Josh puts them in a bowl and pours over some just-boiled water. Leave it for 8-12 hours then plant out into trays.

Scarification – literally making scars. This is a good method to use on acacia seeds, which also have hard coats. Josh has some Panjang (*Acacia lasiocarpa*), a low-growing shrub. He has two bits of sandpaper on a tray and gently rubs the seeds between the layers for about a minute. It may help to wrap the top sheet around a piece of wood to hold it more easily. The seeds should be lightly scratched, not turned to dust. Now they are ready to plant.

Cold stratification – some plants need to experience the cold, damp conditions of winter before they're ready to germinate in spring, so this is what we're reproducing. Josh fills a container with vermiculite then sows the seeds of soap mallee (*Eucalyptus diversifolia*) over the top. The vermiculite holds the moisture while allowing air through. Mist the mix, put the lid on and keep it in the fridge for about four weeks. After this it's placed in the nursery – without the lid – and kept damp until the seed germinates. These are then pricked out into individual pots with seed-raising mix.

Inundation in water. Josh has filled some trays with seed-raising mix and put them in a large, low container that he fills about halfway with water. This mimics the boggy conditions of marshes and suits plants that like this environment, such as the queen trigger plant (*Stylidium affine*), a tufting species with

pink flowers. He sprinkles a few of the tiny seeds over the top of the mix and presses them in lightly. These are then left until they germinate and then Josh will plant them out around his pond.

<https://www.abc.net.au/gardening/factsheets/cracking-native-seed-germination/11100588?fbclid=IwAR0LqilWo5Vd9ZEhIW5xj4rN84V2wHdKQbohvvBHOiq1-LRCym0a5vZEr-g>

Ecological Restoration Videos by Gold Coast Land for Wildlife

Land for Wildlife officers from the Gold Coast have developed videos that explain ecological restoration techniques. They've been designed to assist Land for Wildlife members and the broader public with best practice techniques in weed control and planting. Using appropriate weed control techniques and restoration methods can save you time, energy and resources and help ensure your ecological restoration project is a success. <http://www.goldcoast.qld.gov.au/environment/ecological-restoration-techniques-46281.html?fbclid=IwAR2iWo37UXxVNY5gz7iC1RJgLwe4nZbhDmgFbKRp9zhZ5ghOrmwxBSjvF7w>

FUNDING

Do you have a great project and need funds to make it happen?

You can find more information on available grants on the Brunswick Valley Landcare website including a calendar of all grants expected to be available during 2019. There are also some handy tips on how to be successful with grant applications. Below is a summary of grants which are currently accepting applications and ones that are anticipated to open within the next month.

<http://brunswickvalleylandcare.org.au/funding/>

Eco Schools grants program

The Eco Schools Grants program funds environmental management projects that promote learning opportunities for students, teachers and the community.

Applications close **Monday 1st July 2019 at 3.00pm**

<https://www.environment.nsw.gov.au/funding-and-support/nsw-environmental-trust/grants-available/eco-schools>



2019 Community litter grants

Round 5 of Community Litter Grants is planned to open from June to August 2019. During this period, you will be able to send in applications for grant funding.

Please note: You cannot apply for grant funding until after you submit an Expression of Interest and your group's eligibility has been confirmed by the EPA.

Program streams: Grant funding will be available in two streams:

Stream 1: Local single-community group projects (\$4,000 to \$10,000). This stream is for any community group to conduct a litter prevention project at a single littered location. It is intended for groups who are taking their first steps in the litter prevention journey. Expert help will be available to support groups to plan and carry out effective litter prevention projects.

Stream 2: Multi-site and/or multi-organisation projects (\$20,000 to \$70,000). This stream will be for larger organisations that are able to work across multiple sites and involve multiple groups. It is intended for groups that have the capacity to engage in litter prevention on a larger scale and over a longer period of time.

<https://www.epa.nsw.gov.au/working-together/grants/litter-program/community-litter-grants>



Grants are available to Macadamia Growers on the NSW North Coast improve land management practices and reduce the impact on the marine estate. Growers interested in grants of up to \$5,000 under the project.

If interested email jeremy.bright@dpi.nsw.gov.au or phone 0427 213 059 or kel.langfield@lils.nsw.gov.au or phone 0429 773 289

Weed of the Month

This month's weed of the month is Coffee *Coffea Arabica*.

Yes your favourite morning beverage is a weed in this area.

A shrub or small tree to about 5 m tall, originating from Ethiopia. With glossy leaves that are opposite on the stem, having wavy margins and small pits in some of the vein angles on the underside.

White fragrant flowers occur in small clusters along the stem in Autumn. Fruits are red, slightly elongated, with a thin layer of flesh covering two seeds in late Autumn – Spring.

As coffee is shade tolerant, it competes with native trees and forms dense seedling carpets in rainforest understorey. And it is a really easy one to walk past as it looks like it is a rainforest plant.

Birds love the red seeds and disperse them far and wide.

Similar Native Species are Turkey Bush *Hodgkinsonia ovatiflora*.

For more info visit

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



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 groups 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 Liz Gander
CONTACT: Liz Gander bangalowlandcare@gmail.com 66871309

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: alternate 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 Rita de Heer
CONTACT: Rita de Heer 02 6684 1495 ritadeheer7@gmail.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

Yallakool Reserve Landcare, Ocean Shores

WHEN: each Wednesday and Friday at 8.30 – 11.00 am
WHERE: corner of Yallakool Drive and Warrambool Road, Ocean Shores
CONTACT: David Kemp dnkemp77@gmail.com 0427 650 861

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 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
- Local Land Services www.northcoast.ils.nsw.gov.au
- North Coast Local Land Services <http://northcoast.ils.nsw.gov.au/>
- Border Ranges Richmond Valley Landcare www.brrvl.nsw.gov.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 0421 244 640 (Monday, Thursday and Friday)

email: alison.ratcliffe@byron.nsw.gov.au



This newsletter is supported by Byron Shire Council.

