




# Newsletter for Landcare and Dunecare in Byron Shire

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

 Connect on facebook

**March 2016**

<b>MARCH</b>	<b>14</b>	<b>Ecological Tree Planting and Weed Control Techniques Field Day</b>
<b>APRIL</b>	<b>2</b>	<b>Environmental Story Telling workshop with Jenny Carghill-Strong</b>
	<b>9</b>	<b>Ocean Shores Community Tree Planting</b>
<b>MAY</b>	<b>6</b>	<b>Koala Connections Conference</b>
	<b>8</b>	<b>Mullum Music Festival Community Tree Planting</b>

## Clean up Australia Day



Twenty people turned out on Sunday to support clean up Australia day. It was great that 3 of these were very enthusiastic children who treated it like a treasure hunt.

The scouts also got out their kayaks and went along the river collecting rubbish. An NBN news crew turned up to video us. Did anyone see us on the news? If not you can watch the clip at <http://www.nbnnews.com.au/2016/03/06/mullumbimby-cleanup-finds-little-litter/>

The majority of rubbish was bottles, cans and plastic food wrapping such as ice cream wrappers. We were all presently surprised by the amount of rubbish we found, there was very little. Well done Mullumbimby!

Thank you to the CWA ladies who put on a wonderful morning tea for us, we very much appreciated it!

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## FUNDING

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### 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 2016. 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/>

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### Foundation for National Parks and Wildlife Grants

The Private Land Conservation Grants Program NSW is now open. It is funded by the Foundation for National Parks & Wildlife and its partner organisations. It provides small grants to support NSW landowners who have a conservation protection mechanism on their land, and for education and training in conservation. The Private Land Conservation Grants Program recognises and supports landholders for activities which enhance the biodiversity conservation value of their registered properties.



Applications Close: **Friday 18 March 2016** <http://fnpw.org.au/foundation-grants/>

Suitable for private landowners with a conservation agreement in place

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### Lead Environmental Community Groups Program

The Environmental Trust is now calling for applications under the 2016 Round of the LECG Program. The 2016 round of the program sees a change in timing and structure.



The Lead Environmental Community Groups (LECG) Grants Program is aimed at assisting eligible lead environmental community organisations to build the capacity of the NSW community in protecting and conserving our environment by delivering community education and/or capacity building activities.

Applications close on **11 March 2016**. <http://www.environment.nsw.gov.au/grants/Lead.htm>

Suitable for non landcare community groups

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### James N Kirby Foundation Grants

Each year, The Foundation distributes just over \$1,000,000 across four key categories including the environment. When is the opening period for Grant Applications?



JAMES N. KIRBY  
FOUNDATION

Small Grants (\$15,000 or Less) – 1 October to 28 February each year.

Large Grants (More than \$15,000 – Stage 1) – 1 October to 30 November each year.

Large Grants (More than \$15,000 – Stage 2 if eligible) – Mid-December to 28 February each year.

<http://www.kirbyfoundation.com.au/>

Suitable for small projects

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### Green Army Round Five

Round Five of the Green Army Programme opens soon and seeks to maximise positive environmental and heritage impacts through the use of multiple Green Army teams over a two to three year period.



<http://www.environment.gov.au/land/green-army/projects/round-5>

Suitable for projects that require a team of 10 people for 6 months

## Norman Wettenhal Foundation Small Grants

The Small Environmental Grant Scheme will provide support for groups or individuals undertaking biodiversity conservation projects in Australia. We are looking for projects that are about one or more of the following:



- monitoring, recording and sharing data
- delivering community education
- providing community capacity building (training)
- research and science

The next round opens on **29th March**.

<http://nwf.org.au/grants/small-environmental-grants/>

Suitable for environmental projects under \$10,000

## Funding Grants for Women in Agriculture



Women & Leadership Australia is administering a national initiative to support the development of female leaders across the agriculture sector.

Senior Management and Executive level Women Leaders can apply for \$12,000 Individual Grants to undertake the Advanced Leadership Program.

Women Managers can apply for \$5,000 Individual Grants to undertake the Accelerated Leadership Performance Program.

<http://agex.org.au/funding-grants-for-women-in-agriculture/>

Suitable for women working in or studying agriculture

## Protecting our Places grants

The aim of the Protecting our Places program is to protect land that is culturally significant to Aboriginal people and to support education projects about the environment and its importance in Aboriginal life.



The Protecting of Places program is currently the subject of an independent evaluation review. The next round of the program has been postponed until this evaluation has been completed and the recommendations considered by the Trust. It is envisaged that the next call for applications will be in late 2015/early 2016. Keep an eye on the page below for updates regarding this years grants.

<http://www.environment.nsw.gov.au/grants/pop.htm> Suitable for Aboriginal projects

## Pest and Weed Drought Funding

Land managers are being encouraged to apply for up to \$3 million through the 2015-2016 Pest and Weed Drought Funding program.



Land managers on the North Coast are encouraged to apply before 4 April 2016. Funding will be used to reduce grazing pressure from pest animals, reduce stock losses from pest animals and reduce the spread of weeds. Individuals, groups and organisations are welcome to apply for funding and Guidelines and the application form are available online.

<http://www.lls.nsw.gov.au/agriculture/seasonal-conditions/droughts>

Suitable for Farmers affected by drought and pests

## NRMA Community Grants - Environment



Since launching the NRMA Insurance Community Grants program in 2003 we have supported more than 1,650 of these local community organisations nationally with a total investment of \$7.3 million. Notably, this program recognises and showcases the great work that hundreds of grassroots organisations undertake in our communities to help make them safer, stronger and more confident.

Now in an effort to evolve our program even further, we are in the process of exploring new ways to maximise community benefits, meaning the Community Grants program is currently closed for applications. We look forward to sharing these new opportunities and initiatives in due course.

For more information please visit [communitygrantsprogram.com.au](http://communitygrantsprogram.com.au)

Suitable for small projects

## Coles Junior Landcare Garden Grants



Coles Junior Landcare Garden Grants give \$1,000 to schools and youth groups to help create gardens in their grounds or community, such as bush tucker gardens, water wise gardens or veggie gardens. These programs encourage students to learn about the environment through “outdoor learning” and interaction in developing their own school gardens. All schools, kindergartens, daycare centres, and youth groups (e.g. Scouts) are eligible to apply for a Coles Junior Landcare Garden grant. Last year round one opened in February so keep an eye on the website for further info. <http://www.juniorlandcare.com.au/grants-2/coles-grant>

Suitable for schools and preschools



If you have you completed a heritage project in the last year 2015/2016 - why not enter it into the [National Trust Heritage Awards?](#)

Now entering its 22nd year of recognising excellence in heritage, the National Trust Heritage Awards are the pinnacle celebration for the heritage community and an interesting place to see what is happening and the integrity involved. The National Trust Heritage Awards is the Signature event of the [National Trust Heritage Festival.](#)

Categories include:

- ADAPTIVE RE-USE
- ADVOCACY CAMPAIGNS
- CONSERVATION – BUILT HERITAGE
- CONSERVATION- INTERIORS AND OBJECTS
- CONSERVATION- LANDSCAPE
- EDUCATION AND INTERPRETATION
- HERITAGE EVENTS AND EXHIBITIONS
- HERITAGE PUBLICATIONS
- HERITAGE TOURS AND MULTIMEDIA
- RESEARCH AND INVESTIGATION / ANALYSIS

Submissions Close: **3 April 2016**

[www.heritageawards.com.au](http://www.heritageawards.com.au)



## Natural Disaster Relief Assistance Announced

Agricultural Natural Disaster Relief Assistance has recently been announced for primary producers near Lismore, Byron and Ballina Local Government Areas who were affected by a storm in November 2015.

The storm affected more than 100 properties and caused damage to macadamia and banana crops in parts of the Lismore, Byron and Ballina Local Government Areas.

The assistance will be available in the form of loans up to \$130,000, at 1.38 per cent interest per annum, with a two year interest and repayment free period. The low interest loans provide for replacement or repairs to property and farm infrastructure which was damaged by the storm event.

Assistance is available for those producers in the Parishes of Dunoon, Bexhill, Clunes, Nimbin, Tunstall, Blakebrook, North Lismore, South Lismore, South Gundurimba, North Codrington, East Gundurimba, Lismore, Meerschaum, Tuckombil, Teven, Newrybar, Byron, Brunswick, Jasper, Mullumbimby and Whian Whian, which have now been declared as agricultural natural disaster areas.

Producers are urged to apply for assistance via the NSW Rural Assistance Authority (RAA). Potential applicants can contact the RAA toll-free on 1800 678 593 or visit [www.raa.nsw.gov.au](http://www.raa.nsw.gov.au) to clarify eligibility criteria, or any other issues relating to this assistance.





## Ecological planting and Weed Control Techniques

*Meet the people involved in the ecological restoration of Tyagarah Crown Lands*

**Date:** Saturday March 12

**Time:** 8.30am to 10.30am

**Location:** Grays Lane, Tyagarah, Crown Land at Pacific Highway entrance to Grays Lane

**Wear:** Sunsafe clothes or wet weather gear, covered shoes and mosquito repellent

- ❖ *Join in by planting a tree or two*
- ❖ *Watch a demonstration of Weed control techniques*
- ❖ *Have your questions answered by experienced bush regenerators*
- ❖ *Morning Tea provided*

**Enquiries and Registration:** Bela Allen: [bela\\_allen@yahoo.com](mailto:bela_allen@yahoo.com) Phone 02 66847 113

For ongoing information about events sign up to receive the monthly newsletter or join Brunswick Valley Landcare <http://www.brunswickvalleylandcare.org.au>



This project is supported by Brunswick Valley Landcare through funding from the Australian Governments National Landcare Programme and Koala Connections Project, Byron Shire Council.



# Environmental Storytelling Workshop

Are you searching for a tool to make your **environmental message** vividly memorable and deeply inspiring?

Do you want to **engage your listener's hearts** as well as their minds, but you're not sure how?

If so, this workshop will give you the tools you seek.

**When:** Saturday, 2 April, 2016

**Time:** 10.00 am - 4.00 pm

**Who:** Environmental Educators, Educators, Change-Makers and Parents

**Where:** Brunswick Heads Community Centre, South Beach Road

**How much:** \$85 / \$75 concession includes morning tea, but NOT lunch

**Presenter:** Jenni Cargill-Strong

**Video Trailer:** <https://www.youtube.com/watch?v=bVCfOUQ2FUw>

**Info & Bookings:** Alison Ratcliffe 6626 7028 [alison.ratcliffe@byron.nsw.gov.au](mailto:alison.ratcliffe@byron.nsw.gov.au)

Presented in partnership between The Story Tree Company & Brunswick Valley Landcare Inc.

[www.storytree.com.au](http://www.storytree.com.au)

[www.brunswickvalleylandcare.org.au](http://www.brunswickvalleylandcare.org.au)



**Please note the change of date, venue and price!**



## Participant Feedback from a Green Story-Telling Workshop with Jenni Cargill-Strong on the 17<sup>th</sup> February 2016 at Downfall Creek Bushland Centre, Brisbane

*Thank you Jenni for helping us get out of our minds and into our bodies." Emily*

*As educators it's easy to get caught up in functional descriptions of the surrounding natural world. Jenni's workshop assisted us in breaking free of the limitations that we generally put on ourselves and furnished us with strategies to make our storytelling include more visceral interpretations of the world around us. Jenni taught and trained us how to employ various story-telling structures to enhance the way we engage with an audience. Her practical and interactive approach resonated strongly with the Environment Centre team.*

In response to my question "What will you take away from this workshop?" participants replied:

*I loved learning how to give words weight and changing vocal variation.*

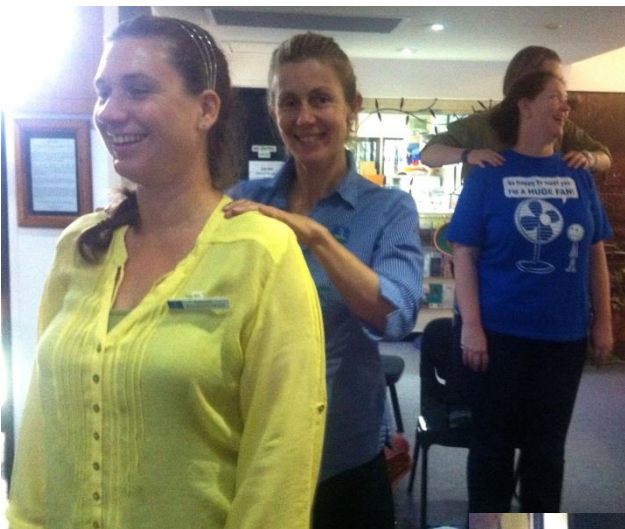
*I learnt a lot watching you demonstrate kamishibai and the way you alternated your speed of delivery from slow to fast.*

*I learned a lot from your Hero's Journey diagram.*

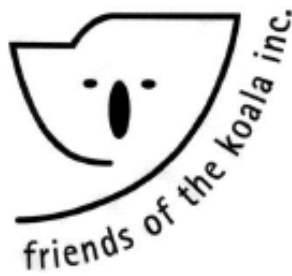
*I liked learning that the object of a story is not tell literal truth but to tell something deeply true and create connection and engagement.*

*Not to overload a story with facts.*

*Taking a pause at the start to ground and centre.*







## Hinterland Koala Forum



**Date:** Saturday 2 April 2016

**Time:** 2pm – 5pm (afternoon tea provided)

**Venue:** Repentance Creek Hall

**Registration:** Lorraine on 6629 8388 or  
president@friendsofthekoala.org



Come along to find out more about the koalas with which you share your lives – their social structure, their health, how they're doing and the particular challenges they face in the Hinterland.

Hear a bit about Friends of the Koala's 30 year koala conservation mission and the work being undertaken by Lismore City and Byron Shire Councils.

Learn what you can do to help the Hinterland's koalas thrive.



*A joint initiative by Friends of the Koala and Rosebank Community Inc.*



## Ocean Shores Community Planting Day

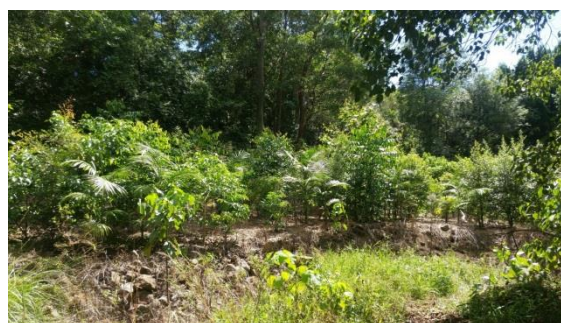
In conjunction with Byron Shire Council, Yallakool Landcare Group will be holding a Community Tree Planting Day at **Yallakool Reserve**, Ocean Shores from **9:00am** on **Saturday 9th April 2016**.

This follows on from a previous event in April 2014 that saw 330 trees successfully planted, and as these photos show, these trees are now providing a healthy canopy over a previously exposed section of our reserve.



If you are interested in joining us, or were involved 2 years ago and would like to see the results of your good works, we will be meeting at the end of Inderwong Avenue, Ocean Shores (off Rajah Road, just south of the Shopping Centre).

Contact David Kemp on 0427 650 861 for further details.



## Beneficial Microbes for Healthy Crops Workshops



Dr Dean Metcalf will present research on beneficial microbes, plant health and local crop applications in March.

### Thursday, 17 March 2016

9.00 AM to 1.00 PM (8.30 registration)

Ballina Community College

494 Bruxner Highway, Alstonville, NSW

### Friday, 18 March 2016

9.00 AM- 1.00 PM (8.30 registration)

Kiangha Plantation,

618 Tomewin Mt Rd, Currumbin Valley, QLD

Bookings essential by 14 March. [Contact Soilcare](#) to reserve a spot. Click here for the workshop [flyer](#). Click here to visit Dean's [website](#).

## Rural Landholder Initiative: Bexhill Dairy and Biodiversity Field Day

Lismore Council kicks off it's series of Field Days for the Rural Landholders Initiative with a visit to the Wilson's dairy at Bexhill.

**Wednesday, 23 March 9am to 2pm** RSVP to Vanessa Tallon on 1300 87 83 87.

<http://files.ctctcdn.com/21111b76301/5479e501-d531-4237-8aff-06f8e481c29a.pdf>





## INVITATION

### After three years the Koala Connections Project is coming to end.....but the work continues!!!

The project has been extremely successful in planting more than 73,000 koala food and habitat trees, at over 130 sites across the Tweed and Byron Shires. More than 100 landholders are already involved in Tweed Byron Koala Connections, helping to achieve a substantial increase in koala habitat along the Tweed and Byron coast areas.

Many people have become proficient in revegetation on their land and are now supporting this initiative with their own habitat restoration.

**To share the lessons learnt from this large scale project, what worked and how we did it, the Tweed Byron Koala Connections team is inviting you to a forum on May 6<sup>th</sup> at the Byron Community Centre.**

This forum seeks to:

- Celebrate and recognise the whole of community contribution,
- Outline our revegetation and regeneration models and how these can work in current landscape,
- Show how working together can achieve so much and continue .....

More information: Jo Green 02 66267068



### Fire for Healthy Habitats Workshops

If you missed the wonderful Byron workshop, never fear! The

Northern Rivers Fire and Biodiversity Consortium's Fire For Healthy Habitat Workshop Series continues:

Kyogle - Thursday 10th March

Pottsville - Friday 11th March

Meerchaum Vale - Saturday 12th March

For bookings and enquiries please contact Tara [tara@nlss.com.au](mailto:tara@nlss.com.au)

<http://files.ctctcdn.com/21111b76301/b2797329-8fdc-4526-9567-63f4363158ee.pdf>







# KOALA TOUR

Friends of the Koala, Lismore City Council & EnviTE Environment invite you:

***Thursday March 17, 2016 9.00am—11am***

***Koala Care Centre, 23 Rifle Range Road, East Lismore***

- Tour Friends of the Koala Care Centre
- Nursery inspection & tree propagation advice
- Walk to spot koalas and learn basic koala food tree identification
- Hear about the work being undertaken to restore koala habitat in Lismore LGA
  - Refreshments will be available

**RSVP by Monday March 14, 2016 to [mareet@envite.org.au](mailto:mareet@envite.org.au) or 0266272800**

*Supported by the Australian Government's Green Army Programme with Friends of the Koala and Lismore City Council.*

*The project has been assisted by the New South Wales Government through the NSW Environmental Trust.*







Australian Government

National  
Landcare  
Programme



## 20 Million Trees & Green Army Connecting Rainforest Planting (via Clunes)

Big Scrub Landcare invites you to a 6250 tree planting at  
Eureka Beef Lot 1 Beacoms Road Via Clunes (map next page) on

**Friday March 11, 2016 9.30 - 11.00am**

Morning tea will be provided

Wear sturdy footwear, long pants and shirts, hat, sunscreen and insect repellent.

**RSVP: [mareet@envite.org.au](mailto:mareet@envite.org.au) or 02 66272800**

*The planting is part of the 20 Million Trees project: Big Scrub Rainforest—creating better linkage using stepping stone plantings. The Big Scrub Green Army team is planting 6250 trees along Coopers Creek connecting two critically endangered lowland rainforest remnants. The Big Scrub 20 Million Trees project is planting 11,250 lowland subtropical rainforest plants over 4 ha to expand and link rainforest remnants.*

*Supported by the Australian Government's Green Army Programme  
& National Landcare Programme 20 Million Trees  
with Big Scrub Landcare & EnviTE Environment.*

*Rainforest restoration in Big Scrub remnants has been assisted by the  
New South Wales Government through the NSW Environmental Trust.*



## More support for Landcare in Byron Shire

The NSW Government has provided \$15 million over four years to renew the government-community relationship and unlock the full potential of the thousands of volunteers in the Landcare network.

The program reflects the sentiment of the Memorandum of Understanding between Local Land Services and Landcare NSW. It has been designed to put Landcare on a more sustainable funding footing, with the majority of the funds going to community-based local coordinator positions.

Brunswick Valley Landcare as a member of the North Coast Regional Landcare Network has secured funding for another day per week for our Landcare Co-ordinator, Alison Ratcliffe.

Alison will now be available at the Byron Shire Council Offices in Mullumbimby on Tuesday, Wednesday and Thursday.

This activity is part of the Local Landcare Coordinators Initiative



Local Land  
Services

The Local Landcare Coordinators Initiative is funded by the NSW Government, and is supported through the partnership of Local Land Services and Landcare NSW.



## Seniors Week Positive Ageing Award



Getting older is positively inspiring and Byron Shire Council would like to recognise the golden stars in our communities.

If you know someone 65 or over that is actively involved in our community, is a role model, challenges traditional assumptions

and is making a difference to one person or a number of people, then nominate them for the Seniors Week Positive Ageing Award.

Mayor Simon Richardson encourages members of the Byron Shire community to nominate an inspirational senior for this annual Seniors Week Positive Ageing Award to be presented at the Mayor's Morning Tea during Seniors Week - on Tuesday 5 April at the Byron Community Centre.

He added, "As a community we need to honour our elders and Seniors Week is a fantastic way to promote positive community attitudes towards older people and ageing; at the same time we can recognise the incredible achievements and contributions individuals make. Byron Shire residents can come together and celebrate the diverse and unique population of older and more experienced residents we have living amongst us.

"I would encourage people to take time out and think about who they find inspirational and nominate them for the Positive Ageing Award. "Friend, family member, work colleague – activist, artist, entrepreneur sporting champ, carer or cake maker, in fact any senior you believe deserves recognition can be in the running," he said.

Nominations close **Monday 21 March 2016**. For more information and to obtain nomination forms go to [www.byron.nsw.gov.au](http://www.byron.nsw.gov.au), or email Anna Meltzer on 6626 7000 or email [anna.meltzer@byron.nsw.gov.au](mailto:anna.meltzer@byron.nsw.gov.au)



## Community Power for Community Action



Local landcarer and bush regenerator Dave Rawlins, is the vice president of COREM (Community Owned Renewable Energy Mullumbimby) and wants to see Mullumbimby running on renewable energy. He says "One of the main reasons I have become active with COREM is due to the impacts that fossil fuel extraction and human induced climate change have on biodiversity. Australians, as the biggest carbon emitters per capita, urgently need to create an alternative model to coal fired electricity generation." COREM is currently fundraising to do just that. Dave asks you to support [www.planetfunder.org/projects/COREM](http://www.planetfunder.org/projects/COREM)

Nearly 90% of Australia's electricity comes from the burning of fossil fuels - mainly coal. Every part of our electricity cycle puts species at risk. From the extraction of fossil fuels to the emissions created in electricity generation which drive climate change.

Our domestic fossil fuel electricity production causes more than one third of Australia's greenhouse gas emissions. Climate change will impact every part of human society, from where we can live, to the crops we grow, and the storms and fires we can endure. The impact on biodiversity is just as significant. This is why the Australia's Climate Council says more than 90% of the world's fossil fuel reserves must stay in the ground if we are to avoid dangerous climate change.

Mining of fossil fuels is also causing immense damage. For instance, the Maules Creek open cut coal mine in the Leard State Forest is under construction and will destroy more than 5000ha of the Leard State Forest clearing habitat for 34 listed threatened species and wiping out 1,082ha of the nationally listed critically Endangered Box- gum Woodland. While the proposed Galilee Basin project will see tens of thousands of hectares of remnant woodland, including declared protected areas cleared to make way for the new mines. The Galilee Basin not only has significant local biodiversity impacts but requires port expansion which will degrade the Great Barrier Reef. Then there is the Pilliga CSG project and Shenhua Watermark coal mine which also will destroy threatened species habitat.

If you care about biodiversity and the future we will leave our kids, then lets lead the way to show an alternative. By donating even just a few dollars you will be taking a stand against fossil fuels and be part of history in funding Mullumbimby's first Community Owned Renewable Energy project. COREM has the vision to run this area on renewable electricity, but we all need to be part of this grass roots initiative. Donate at [www.planetfunder.org/projects/COREM](http://www.planetfunder.org/projects/COREM)

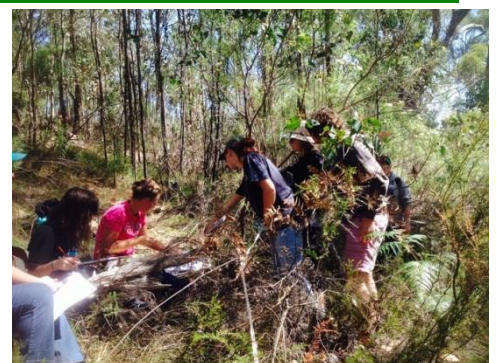
## Identification of animals and plants is an essential skill set

February 26, 2016 4.34pm AEDT [Susan Lawler](#) Senior Lecturer, Department of Ecology, Environment and Evolution, La Trobe University

I have recently been made abundantly aware of the [lack of field skills](#)

among biology students, even those who major in ecology. By field skills we mean the ability to identify plants and animals, to recognise invasive species and to observe the impact of processes such as fire on the landscape.

My colleague Mike Clarke calls it "[ecological illiteracy](#)", and identifies it as a risk for nature at large. While people spend more times indoors in front of screens, we become less aware of the birds, plants and



La Trobe University students learning how to identify plants near Falls Creek. Susan Lawler

bugs in our backyards and neighbourhoods. This leads to an alienation of humans from nature that is harmful to our health, our planet and our spirit.

On a more practical, academic level, I was in a meeting this week where an industry representative complained that biology graduates are no longer able to identify common plants and animals. This limits their employment prospects and hampers the capacity of society to respond to changes in natural ecosystems predicted by climate change.

### **Field taxonomy vs. Bloom's taxonomy**

So what is going on? Why don't ecology students get this information during the course of their University degrees?

Practical sessions teaching scientific names of animals or plants can be perceived to be boring and dry. Students may be asked to collect and pin a range of insects or press and identify certain plants as part of their training in biological diversity, but these activities are time consuming and expensive. As we strive to be more flexible and efficient, classes and assessments relying on identification skills are quickly dropped.

Ironically, the dogma that has been so detrimental to field taxonomy is known as Bloom's taxonomy. University lecturers are told to apply an educational theory developed by [Benjamin Bloom](#), which categorises assessment tasks and learning activities into cognitive domains. In Bloom's taxonomy, identifying and naming are at the lowest level of cognitive skills and have been systematically excluded from University degrees because they are considered simplistic.

The problem is that identifying a plant or insect is not simple at all. Not only do you need to know which features to examine (nuts, leaves, roots, spines, eye stripes or wing venation), you need to adopt a whole vocabulary of terms designed to provide precision in the observation of specific traits. Examining the mouthparts of insects requires knowing the difference between a mandible, maxilla and rostrum. Hairs on a leaf can be described as glaucous, glabrous, or hirsute.

Such detail cannot be taught without a student passionate enough to embrace the task and having a passionate mentor who can make the discipline come alive.

### **Photographs are not enough**

In this digital age some people seem to think that photographs can replace the collection of specimens. I know a bit about crayfish, and where in the past a fisher might show up with an animal in an esky, these days people like to send me a photo and ask what species that was. I cannot identify a crayfish from a photo, nor can I easily explain to an interested amateur how to count the mesal carpal spines.

There is a reason that scientists must collect specimens and take them back to the lab or lodge them with a museum. Biological organisms are extremely complex, and the critical feature that distinguishes one from another relies on careful comparison.

A recent discovery of a rare kingfisher in Guadalcanal caused controversy in the [Washington Post](#) when the researchers photographed, then killed and collected the animal. I understand why they felt they needed to document their finding with a specimen, and I understand the outrage of nature lovers who decry the need for more than a photo.

### **Australian species are poorly known**

A [recent article](#) by an author in Britain points out the difference between taxonomy and field skills. Trends in biological recording are changing due to electronic and photographic recording and the availability of complete field guides. However, the situation in the United Kingdom does differ from Australia.\*

It is true that in some parts of the world the species have all been named and catalogued, but Australia is not one of those places. Any shake of a shrub will produce un-named insects. Every [Bush Blitz](#) expedition discovers new species or new records of known species.

### Young people need field trips

I spent last week in the Victorian alps with biology students from La Trobe University. As part of their research project they needed to identify plants and insects. We had some impressive expertise among our staff, people who knew the Latin names of every plant at first glance. The trick is to transmit that knowledge to the next generation.

Accordingly, we made the students tape leaves into their notebooks and write names next to each one. We brought the insects back to the lodge and sat in front of microscopes for hours. Using keys, identification books and each other we were able to describe the particular community at each study site.

Some of the students came away excited about different groups of organisms. The excitement of the camp may lead them to spend time away from their desks staring at gum leaves, listening for bird calls or popping bugs in jars for later inspection.

I hope that some of them become obsessed enough to turn themselves into experts, but I also want all young people to have more exposure to nature and all of its parts.

Not everyone can spend time in the alps, but everyone can learn the names of the trees in a nearby park. Can you identify the birds calling in your backyard? Do you know the difference between a moth and a butterfly, or between a worm and a grub?

Take the time to engage with both the little and big things growing around you and discover the joy of re-connecting with nature.

## Five New Suicidal Mammals



Threatened by climate change: *Antechinus arktos*.  
Photograph: Gary Cranitch, Queensland Museum

Taken from a talk by Andrew Baker from the Queensland University of Technology.

Five new species of *Antechinus* have recently been discovered and they are unique in that these carnivorous marsupials have suicidal reproduction.

Males and females are promiscuous, often enthusiastically so, with copulation lasting up to 14 hours. At the end of the 1 to 3 week mating period, all males

drop dead – victims of raging testosterone, which causes a malfunction in the stress-hormone cutoff switch. As a result, their immune system shuts down, their hair falls

out, they become infested with ticks and mites and death inevitably follows, from internal bleeding or infection. When females give birth a couple of weeks later, not a single male is left alive to help rear the young. Offspring in a single litter are often fathered by multiple males as the female is capable of storing sperm for a few days prior to fertilisation. So this means that at the end each mating season, the population is halved.

Previously there were only 10 species of *Antechinus* nationally and they have just found 5 new species. 3 of the new species are now on the Threatened Species list.

The Black-tailed dusky antechinus *Antechinus arktos* could possibly be found in this area. Specimens of the new species, *A arktos*, were previously known to mammalogists but had been falsely assumed to belong to a common and widely distributed mainland subspecies of the Dusky Antechinus, *A swainsonii*



*mimetes*. Andrew M Baker and Thomas Y Mutton of the Queensland University of Technology, with co-authors Harry B Hines of the Queensland Parks and [Wildlife](#) Service and Steve Van Dyck of the Queensland Museum, have clarified the evolutionary significance of the Black-tailed Antechinus and called attention to its threatened status and it was listed as endangered in NSW and QLD in 2015.



Photograph: Gary Cranitch,  
Queensland Museum

They only live in the very top parts of the Tweed Caldera Scenic Rim and like very wet cold climates and are quite often found in stream gullies where the Stream Lilly *Helmholtzia glaberrima* is found usually above 800m in elevation. As well as having a very limited geographic distribution, *A arktos* appears to be locally rare. In spite of evidence that these animals will readily enter traps, extensive efforts to capture them were largely unsuccessful: in 2013-2014 10,000 traps were deployed with only 10 individuals found at a single site. More disturbingly,

specimens were not found at some lower-altitude sites where they had once been documented to exist, suggesting that their range may be shrinking.

The team reporting the new species fears that climate change is having an impact on populations and that a continued warming trend will place them at even greater risk as they have nowhere left to run, being at the very summit of the World Heritage-listed rainforest of Springbrook.

The brown antechinus *Antechinus stewartii* are very common around this area and their territories have been found to overlap those of *A actos*.

What they know about the Black-tailed dusky antechinus:

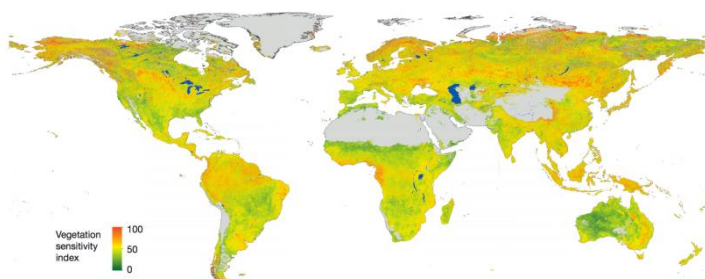
- their breeding season (mid September) ,their growth and their diet

But we don't know much else about them. What is their distribution? What is their habitat preference? What are the threats to them?

No animals have yet been found in NSW but there is a possibility that they may be in the upper slopes of the Nightcap NP, the Border Ranges or at the top of Wollumbim.

The Black-tailies Antechinus is a large (60-120g) antechinus with a greyish-brown head, orange-brown rump, fuscous black on the upper surface of the hindfoot and dense, short fur on the evenly black tail. It also has a distinctly marked orange-brown fur on the upper and lower eyelid, cheek and in front of the ear and very long guard hairs all over the body (*Baker et al 2014*)

## Eastern Australia highly sensitive to climate change



Eastern Australian ecosystems are among the world's mostly highly sensitive to climate change according to a new study published in Nature. Researchers estimated how plant growth across the world has varied with fluctuations in temperature, water availability and cloud cover and which of the three climate variables is most

important for each ecosystem. Understanding vegetation responses to current climate variability will help improve predictions of future consequences of such variability on our planet's ecosystems and biodiversity, and our security and welfare. <http://theconversation.com/rising-extreme-weather-warns-of-ecosystem-collapse-study-54898>



If you are an allergy sufferer, spring often brings sniffing, sneezing, and watery eyes. One culprit is pollen from flowers of trees, shrubs, grasses, and weeds. Though most of these bloom for just a short period each year, something is almost always blooming. In early spring, the trees and shrubs are blooming. In summer the main pollen source is from flowering grasses. In late summer and autumn, weedy plants from roadsides are the problem.

Pollen is an important part of plant reproduction and must be moved around from flower to flower. Colourful flowers attract insects such as bees, which help pollinate the flowers. Not all plants use insects to spread their pollen. Most plants that cause allergies use wind to spread their pollen. Therefore, these plants typically have abundant pollen and not very noticeable flowers.

Fortunately, not all pollen causes allergies. Grasses such as Johnson grass, are more powerful allergens than trees. Late summer and into autumn, ragweed and Privet become a serious hazard to hay fever sufferers.

Existing tree pollen is hard to manage, but if you are an allergy sufferer choose non-allergenic trees when planting your next tree. Since the greatest allergy offenders are grasses and weeds, try to keep them from blooming through mowing and weed management programs. For some dioecious plants, you can plant the female instead of the male plants, since the males produce pollen (but remember that female plants produce all those seeds).

I hope you all enjoy our beautiful outdoors this year allergy-free!

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## BioNet

BioNet is a web portal for accessing government-held information about plants and animals in NSW. It comprises the Atlas of NSW Wildlife, Threatened Species Profile Database, VIS Flora Survey, VIS Classification and VIS Map Catalogue. Data is collected and shared via BioNet to meet a range of regulatory, research and open data needs across a broad spectrum of users.

<http://www.bionet.nsw.gov.au/>

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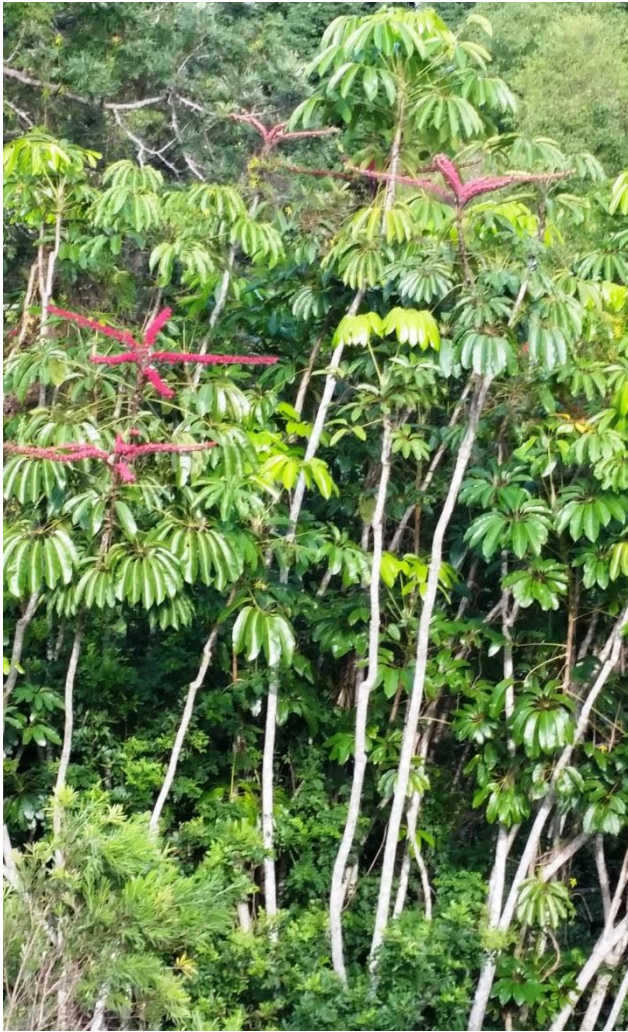
## Help create a feather map of Australia

ANSTO and UNSW researchers are calling on people to collect wetland bird feathers to help track the movement of waterbirds around Australia. This information will be used to inform water and wetland managers about the importance of different wetlands in the lifecycles of waterbirds and to ensure that populations of Australia's waterbirds are maintained or increased.

<https://www.ecosystem.unsw.edu.au/content/rivers-and-wetlands/wetland-ecology-and-stable-isotopes/feather-map-of-australia>



## Weed of the Month



This month's weed of the month is the Queensland Umbrella Tree *Schefflera actinophylla*. This fast growing tree can also be an epiphyte growing in the forks of other tree species much like a strangler fig.

Interestingly it is native to North Queensland but is not endemic to this area of Australia. It can grow to around 10 m in height and is often multistemmed. Compound leaves comprised of leaflets which are dark green, leathery and hairless. The leaflets are arranged palmately, which means they look like an umbrella. Young plants often only have 3 much smaller leaflets.

Have heard a cacophony of lorikeets in your garden? They are feasting on the flowers of the umbrella tree. It is currently in flower and are easy to spot with their impressive small red flowers in large sprays which are held up above the foliage.

The fruit are dark red ribbed and hold a single seed. These trees is very invasive and competes with and displaces native species.

For more information on how to control these weeds and other weeds in the shire please visit the Byron Shire Council website and you will find weed profile sheets: <http://www.byron.nsw.gov.au/weed-profiles>





## 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!**

### Brunswick Heads Dunecare

WHEN: 4<sup>th</sup> Sunday of the month 8:00am – 11:00am  
WHERE: Meet between the rock wall and the surf club  
CONTACT: Jordan Moore [brunswickheadsdunecare@gmail.com](mailto:brunswickheadsdunecare@gmail.com) 0413 962 468 txt mess pls

### East Yallakool Landcare, Ocean Shores

WHEN: each Wednesday 8:00am – 11:00 am  
WHERE: Inderwong Avenue, Ocean Shores (adjacent to the footbridge)  
CONTACT: David Kemp [dnkemp77@gmail.com](mailto:dnkemp77@gmail.com) 0427 650 861

### Green and Clean Awareness Team, Byron Bay

WHEN: 3<sup>rd</sup> Sunday of the month 9:00am  
WHERE: Meet Main Beach, Byron Bay  
CONTACT: Veda Turner [vedaturner@gmail.com](mailto: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](mailto:bromspot@gmail.com)

### Jinangong Landcare, Ocean Shores

WHEN: 1<sup>st</sup> Sunday of the month  
WHERE: The Tunnel Road, Ocean Shores  
CONTACT: Ian Parer [ianparer@hotmail.com](mailto:ianparer@hotmail.com)

### Lower Mullum Creek Landcare, Mullumbimby

WHEN: 2<sup>nd</sup> Sunday of the month  
WHERE: Azalea Street Bridge to Riverside Bridge, Mullumbimby  
CONTACT: Annie Mullen 0478 517 625 [anne@jbailey.info](mailto:anne@jbailey.info)

### South New Brighton Dunecare

WHEN: 1<sup>st</sup> 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@australis.net](mailto:robyn.bolden@australis.net) 6680 1970

### Suffolk Park Dunecare

WHEN: 1<sup>st</sup> Saturday of the month  
CONTACT: Helen Brown [hellyh@bigpond.com](mailto: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](mailto:bela_allen@yahoo.com) 6684 7113

## LINKS

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- 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](http://www.envite.org.au)
  - Environmental Trust <http://www.environment.nsw.gov.au/grants/envtrust.htm>
  - Ewingsdale Locality Group (BVL) <http://ewingsdale.org.au/#/landcare/4532495308>
  - Far North Coast Weeds <http://fncw.nsw.gov.au/>
  - Friends of the Koala [www.friendsofthekoala.org](http://www.friendsofthekoala.org)
  - North Coast Local Land Services <http://northcoast.lls.nsw.gov.au/>
  - Northern Landcare Support Services <http://www.nlss.com.au/>
  - Mullumbimby Community Gardens <http://mullumcommunitygarden.wordpress.com/>
  - North Coast nature <http://www.northcoastnature.org.au/>
  - Richmond Landcare Inc. <http://www.richmondlandcare.org/>
  - Soilcare <http://www.soilcare.org>
  - Suffolk Park Locality Group (BVL) [www.landcare.nsw.gov.au/groups/suffolk-park-dunecare-group](http://www.landcare.nsw.gov.au/groups/suffolk-park-dunecare-group)
  - Tweed Landcare Inc. <http://www.tweedlandcare.org.au/>
  - Wilson's Creek Huonbrook Landcare <http://wilsonscreeklandcare.mullum.com.au/>
  - Wetlandcare Australia <http://www.wetlandcare.com.au/index.php>
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For information about Landcare or other natural resource issues in Byron shire  
please contact

Landcare Community Support Officer

Alison Ratcliffe 66267028 (Tuesday and Wednesday)

email: [alison.ratcliffe@byron.nsw.gov.au](mailto:alison.ratcliffe@byron.nsw.gov.au)



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This newsletter is funded by North Coast Local Land Services and supported by Byron Shire Council.



Local Land  
Services

