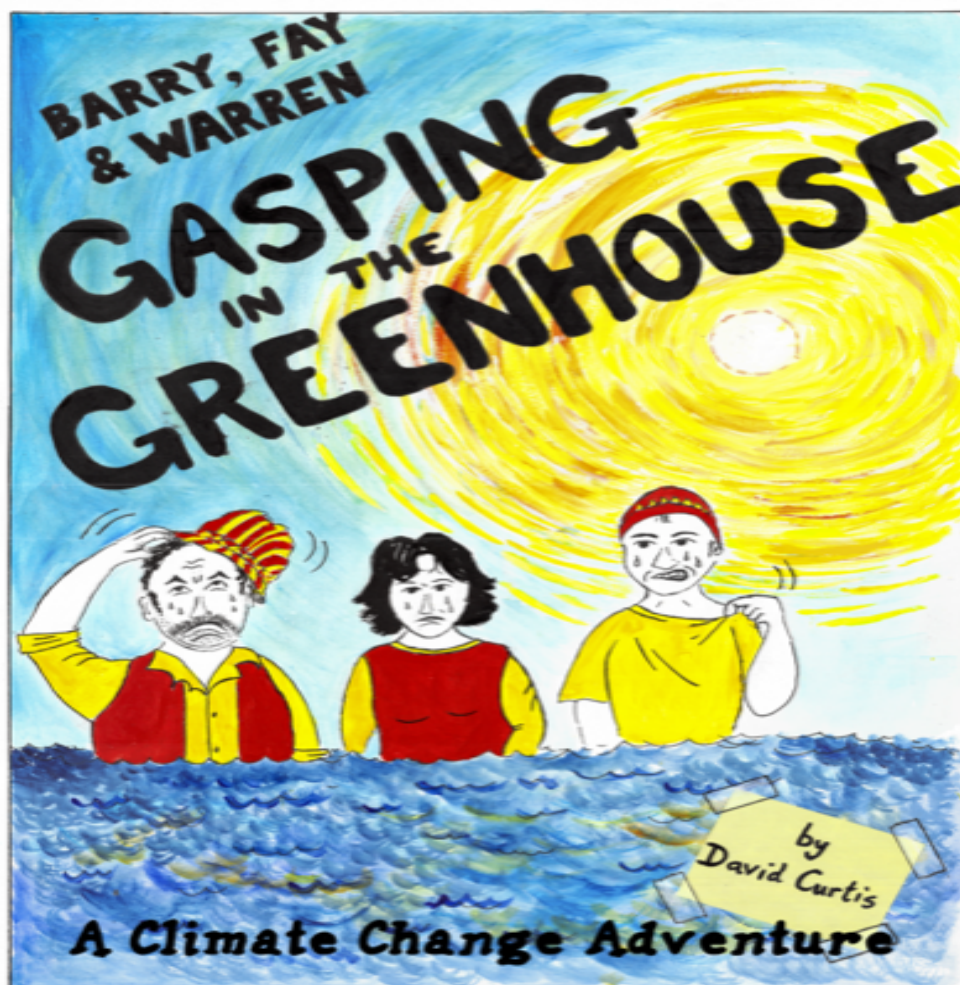


**You are invited to the launch of
“BARRY, FAY AND WARREN GASPING IN THE GREENHOUSE:
A CLIMATE CHANGE ADVENTURE”**

This comic book by ecologist, artist and musician, Dr David Curtis, explores the causes of climate change, its consequences and what can be done to reverse it.

The comic and exhibition of the original artworks will be launched by Professor Nick Reid at the **Armidale Tree Group Michael O’Keeffe Woodland Education Centre in 80 Mann Street, Saturday 3 December at 4.00pm.**

Gasping in the Greenhouse is a humorous tale charting the explorations of its unlikely heroes Barry, Fay and Warren Streuth (environmental detectives extraordinaire), as they explore the causes and consequences of climate change. The book has been described as “quirky”, “a rollicking good ride of a read”, “a compelling read that educates and gives hope”, and “a beautifully crafted, exciting and important read that everyone should experience”!



ARMIDALE TREE GROUP NEWSLETTER

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Tree Planting at Armidale Secondary College

From the Editor

Is there a better way to welcome spring than with a tree planting? The Environment group at Armidale secondary College (ASC) have led their native garden project all the way through from organising and fundraising to planting. The Tree Group is supporting their efforts by providing trees and other plants appropriate to the site and helping with the design. In this edition you can read about how the students of the ASC Environmental Focus Group are finding positive ways to be part of the solution to environmental challenges.

Thank you to Des Anderson of the Northern Tablelands Koala Partnership Project (NTKPP) who has provided a report on the Koala surveying and monitoring project that concluded in April 2022. These results provide essential data for directing koala conservation funding to where it is needed most while clearly outline the seriousness of the challenges facing koalas.

In 2023 ATG will celebrate 40 years devoted to providing native trees and plants in the Armidale and New England Region with a series of events. We are asking our members to join in the celebrations starting with two events in December, the launch of Dave Curtis' second comic book and a showing of the film 'The Plague and the Moonflower. The sub-committee, which has been formed to plan the celebrations, would like to extend an invitation to ATG members to either join the committee or to share ideas on how to celebrate this significant milestone. We look forward to hearing for you with your ideas and assistance.

In this Edition

- Nursery News
- ASC Environmental Focus Group
- Survey Results – Northern Tablelands Koala Partnership Project – Des Anderson
- From the Committee – ATG is turning 40!
- Black Gully Festival

Nursery News – Alicia Cooper - Manager

We have plenty of stock available at the Nursery, and while the wet weather has been extremely trying for many people and businesses, it does mean that planting conditions through summer should be perfect, with lower temperatures than usual and warm, wet soil. Assuming of course, that your site isn't swimming, which many of us are struggling with!



We are continuing work with various government departments on projects involving the revegetation of the Ebor falls rest area with native grasses, the preservation of habitat for threatened orchids (*Dirus pedunculata* and *Pterostylis metcalfei*) and the habitat preservation and propagation of the endangered *Eucalyptus magnificata*, (Northern Blue Box).

We are in talks with The Foundation for National Parks and Wildlife to establish a subsidy for the purchase of trees and shrubs through our Nursery. We hope that this will both encourage and assist landholders who are looking to restore their land or provide wildlife habitat and refuge through tree planting. Watch this space!

Conservation Partner Grants through the Biodiversity Conservation Trust

The Foundation for National Parks and Wildlife is offering grants to eligible landholders to assist with managing their conservation areas, in order to improve the biodiversity values of their properties.

Full details of the program, including how to apply and who is eligible, can be found at the following link:

<https://www.bct.nsw.gov.au/cards/apply-conservation-partners-grant>

Armidale Secondary College Environmental Focus Group

Many people in the ASC community will be aware of excellent work done by the ASC Environmental Focus Group. In this student-led initiative, many wonderful students volunteer their time, ideas and energy to make a positive difference around the School and in our community.

Every day, ASC students put empty bottles, cans and poppers in Yellow top Bins around the School. Each Friday, Environmental Focus Group students empty the Yellow top Bins, collect the empty drink containers and recycle these at the Return-and-Earn centre for 10 cents each, making an average of \$50 a week, thus \$2000 over the last year.

So, what do we do with the money we raise?

This year, and the year before, we were able to donate \$500 to Year 12 fundraising.

On Friday 16th September, the Environmental Focus Group put on a free Big Morning Tea for the whole School, providing enough homemade cake, slice, fruit, cookies and fudge for all students, teachers, staff and cleaners to have a free feast, all paid for from the '10 cents' containers we recycle!



fencing to protect the new garden bed. We will also look after the new seedlings and water them as needed. The Armidale Tree Group very generously donated all plants for this project.

All interested students are welcome to join the Environmental Focus Group. We advertise meetings regularly in Student Daily Notices. Or simply meet us in B2 Neighbourhood on Friday lunchtimes to help us empty the Yellow top Bins. In 2021 and in 2022, many of our most active students were Year 12s, but we also have many keen Year 10s and Year 8s. I am confident that new students will step up in coming weeks to continue one of the best student-run initiatives at ASC.



Planning and
Environment



Northern Tablelands Koala Partnership Project Survey results

Introduction

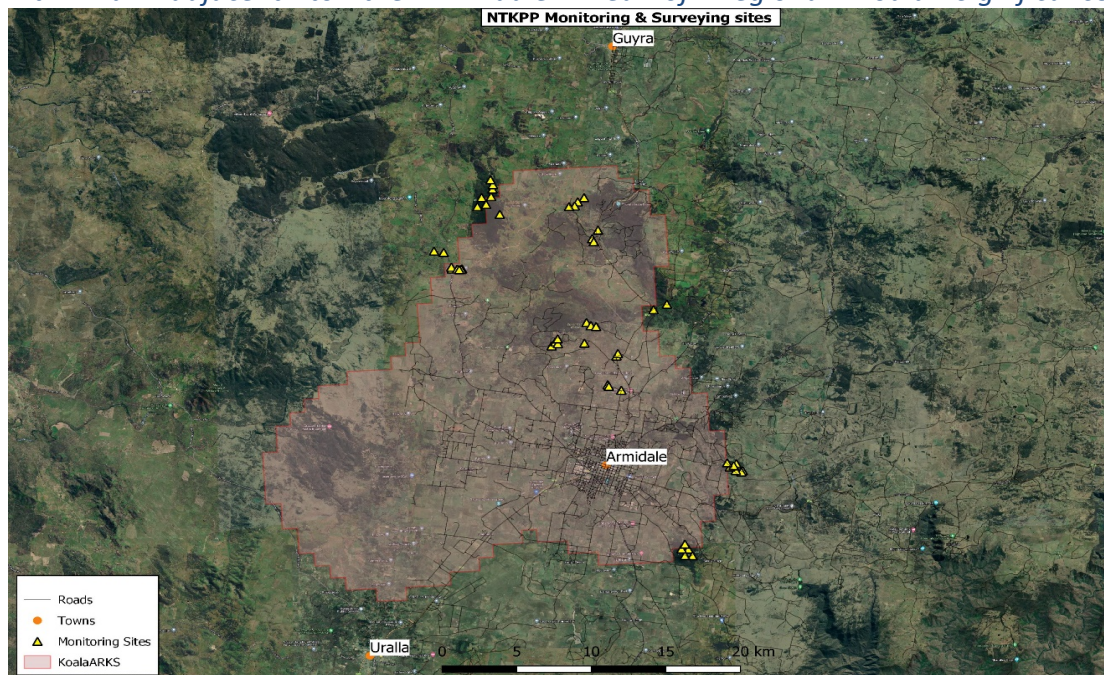
After significant delays caused by rain, the NTKPP Koala Surveying and Monitoring project commenced in December 2021 and concluded in April 2022. Surveying and monitoring is a key koala conservation activity undertaken by the Northern Tablelands Koala Partnership Project (NTKPP). The NTKPP project is hosted by Southern New England Landcare and funded by the NSW Government.

Koala surveying and monitoring data is a vital part of the NSW Koala Strategy. Under the [NSW Koala Strategy](#), survey data provides information on koala populations including presence and absence (where koalas are or are not, relative to what we believe is koala habitat), koala population densities and individual koala ranges. The 2021-22 survey also included assessments of preferred koala feed trees and other plant associations that form typical koala habitat.

Surveying and monitoring data forms one of the four [Key Focus Areas](#) within the NSW Koala strategy. This data informs and ultimately helps koala conservation funding to be directed toward activities and regions where it's needed.

Survey methodology

The 2021-22 Koala Surveying and Monitoring project included 50 survey sites located within an adjacent to the Armidale Area of Regional Koala Significance



shown on Figure 1. Figure 1 – Koala Monitoring and Survey site location

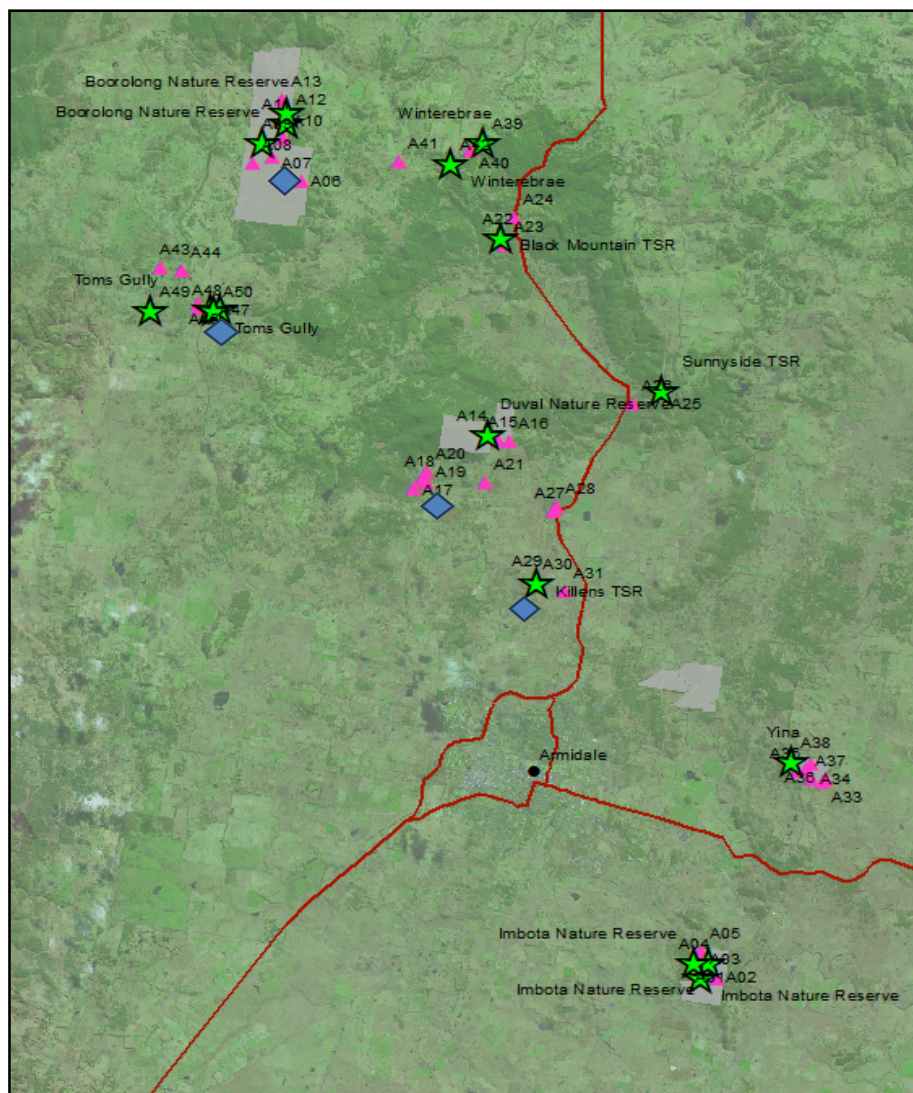
Each survey site supported two survey methods;

- acoustic monitoring - using an “AudioMoth” over 14 consecutive nights to record the male koala “bellows”.
- koala detection dogs surveys – using a specialist dog to locate koala “scats” (poo) by scent. Dog surveys were conducted over a 200m by 50m (1hectare) grid.

At each site a 1ha area (200 by 50m) was sampled by the koala detection dog. Each tree with a scat located by the detection dog was recorded for location, species, diameter and time taken to locate the scat from start of survey.

At each site an AudioMoth was located at the starting point of the site facing along the survey compass bearing and placed for 14 consecutive nights from the time of field deployment. The surveys were conducted from 4th – 23rd Dec 2021.

Figure 2 - Survey sites (pink triangles) that recorded koala scats (green stars) and bellows (blue diamond)



Survey Results

The results for 50 koala survey sites across the Armidale (ARKS) are shown below.

AudioMoth Results

A total of 49 AudioMoths were retrieved after 14 nights (1 moth “disappeared”). Analysis showed that only 4 survey sites recorded bellows (8%). Three of the 4 sites also recorded koala scats by the detection dog, see Table 1 below.

Table 1 – AudioMoth results against Detection dog results for same sites

Site	Bellows	Detection Dog
A06	3	Not surveyed
A25	7	Yes
A30	3	Yes
A48	4	Yes

Detection Dogs Results

A total of 47 survey sites were sampled by the koala detection dog team and a botanist team. Three sites in Boorolong Nature Reserve were not completed due to a dog baiting program that commenced in the study area. An additional 3 incidental sites (2 in Boorolong NR and 1 in Tom’s Gully) also recorded koala scats. Overall, 20 sites out of the total of 50 (47 survey sites and 3 incidental sites) recorded koala scats (40%) under a total of 47 feed trees (Table2).

Max finds a Scat ! Good Boy!



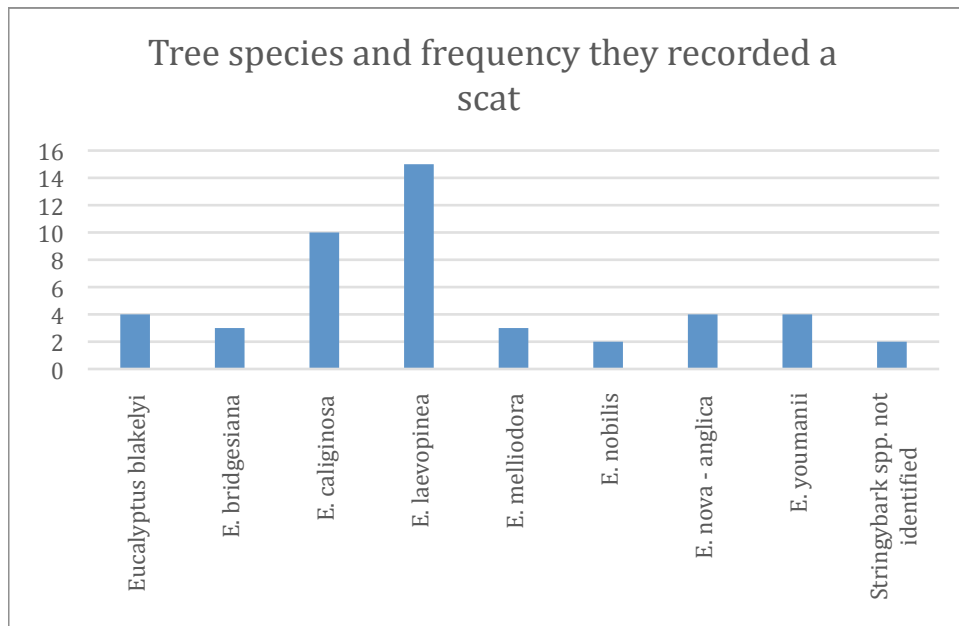


Table 2– Tree species and frequency they recorded a scat

Audio recording Device at Newholme



Discussion

The inaugural survey and monitoring program encountered many challenges with survey scheduling and access to sites being perhaps the most difficult aspect to manage. Persistent rain and storms resulted in wet and boggy trails and fallen timber, restricting vehicle access on many occasions.

One of the objectives in employing two different survey methodologies was to compare the data obtained by each method across the same site. Detection dogs can detect the presence of koalas at a site for approximately 6 weeks after the koala has moved away from the area. Audio moths are only able to detect a koala if it is:

- Simultaneously present at a site
 - Within range (within an approximate 100m radius from the device)
 - Calling (mostly males)
- Other potential factors for the significantly lower recording rate from AudioMoth devices are:
- Placement of AudioMoths in December, which is towards end of the key koala calling activity period (August – Nov.)
 - Periods of rain during the 14 nights (rain deters koala activity and interferes with sound detection)
 - Lower recording range of the model of AudioMoth used (approximately 100m)
 - Some sites had nearby possible noise factors (roads, creeks and frog noise)

Assessment of koala feed trees in Table 2 shows that koalas appeared to use at least nine species of eucalyptus trees as food trees. Koala scats found under Stringybark species (*E laevopinea* and *E youmanii*) yielded by far the most positive sightings (66%).

The data set helps support previous koala surveys undertaken in the Northern Tablelands region and further supports our expanding knowledge of koala populations, their preferred feed tree species and key habitat areas in the Northern Tablelands. Disturbingly, these declining populations are becoming increasingly vulnerable to many threats including disease, vehicle strike, livestock and dog attacks and reduction of habitat.



Survey team at Imbota NR Des Anderson, Adam Baillie NPWS, John Lemon – Ecologist

Credits and Acknowledgments

The project was delivered by the Southern New England Landcare NTKPP team, Canines For Wildlife, JML Ecological and Stringybark Ecological. The project was assisted with notable support from our project partners including private landholders, NSW National Parks and Wildlife Service, University of New England (Newholme Field Laboratory) and the Northern Tablelands Local Land Service. Each partner helped facilitate koala surveys on their property and provided excellent local knowledge to help guide site selection. A replicate survey is scheduled for spring, 2022.

From the Committee

Coming Events

As previously noted (in the Editor's notes) 2023 will mark 40 years of the Armidale Tree Group and we mean to celebrate with a series of events throughout the year. Any and all suggestions to help us mark the occasion will be greatly appreciated. Please consider joining the Birthday Committee if you have ideas and or skills. The members are the ATG! And as always we rely on your support.

We will start the celebrations a little early with events in December when Dave Curtis, the founder and continuing inspiration for the ATG will be in Armidale to attend the UNE Peace Conference and launch his second Comic **Book "Barry, Fay and Warren Gasping in the Greenhouse: A Climate Change Adventure"** - on Saturday December 3rd at the Woodland Centre at 4pm.

On that same weekend at 11am on Sunday 4th December our tireless Treasurer, Garry Slocombe, has organised a showing of the movie “Plague and the Moonflower” filmed at Woodford Folk Festival in 2003 featuring many members past and present

Black Gully Festival

After a two-year break due to Covid the Black Gully Festival made a joyous return. On a glorious spring day the Armidale community came together to celebrate with great music, and a strong focus on sustainability and the environment. Thanks to Catherine and Paul McFarland, Chris Nadolny and Garry the ATG was well represented. New members were recruited, donations were received and the word about what ATG does was spread.

The “odd” committee member may be spotted in the ranks of the “Disco Koalas” dancing to the BEE Gees’ Stayiin’ Alive in an effort to draw attention to the plight of Koala and recently there acquired status of endangered.



AN ORATORIO BY
RICHARD HARVEY

WITH LIBRETTO BY

Ralph STEADMAN



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**PLAGUE AND THE MOONFLOWER
WOODFORD 2003**

11:00am SUNDAY 4 DECEMBER, BELGRAVE TWIN
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