

ARMIDALE TREE GROUP NEWSLETTER

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The Saumarez Creek Corridor – Every Tree Counts

By Dave Carr



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Cover Photo: ATG Manager Alicia Cooper and ATG Treasurer Mike Patterson at Dangarsleigh Hall for the Launch of Every Tree Counts (photo courtesy of David Steller)

Editor's note: 2018 Autumn Edition

We finally had our launch for Every Tree Counts! What a great night meeting landholders along Saumarez Creek who may wish to partner with Armidale Tree Group to provide wildlife connectivity on their properties and to enhance the beauty and productivity of their holdings. ATG president Dave Carr has captured the essence of the evening in his report, **The Saumarez Creek Corridor – Every Tree Counts**.

At the launch, I was particularly impressed with the work that had already been done by some of the pioneer tree planters in this area. It was great to hear the success stories after the hard but rewarding work of revegetation of the land along the creek. The transformation of Robert Curtis' property has been amazing and his before and after shots prove that it was worth the effort. Andrew Huggett's talk on declining bird counts certainly raised alarm bells in us all. I hope that those landholders who couldn't make it can get a feel for what we are hoping to achieve over the next thirty or so years to help restore the habitat for the future of our region. An EOI form has been included in this newsletter if you want to discuss more about how to get involved in Every Tree Counts.

Every Tree Counts is one of three finalists in the Armidale AM Rotary Club Prime My Project grant initiative. Maybe you could come and support the dinner for the awards. See details in this newsletter. Thanks also to Armidale Central Rotary Club for their donation of \$2,000 towards Every Tree Counts.

Maybe you know a business or organisation who would like to sponsor us or donate to Every Tree Counts or as an individual you would like to help out. As the end of the financial year approaches this may be a good time for a tax-deductible donation to this project.

Peter Metcalf has provided an interesting article on Changes in the Bush. A very good read on soil types and vegetation in our region.



Donations over \$2 to the Armidale Tree Group Fund for **Every Tree Counts** are Tax deductible.
Go to our website for details.

focus

Read the ATG article on **Every Tree Counts** in the April Edition of Focus Magazine. It captures the project very well.

Kerry Steller (editor)

The Saumarez Creek Corridor – Every Tree Counts

By Dave Carr



Figure 1 Dave Carr welcomes guests to the Launch of Every Tree Counts (Photo courtesy of David Steller)

On Saturday 24th February thirty landholders, members, donors and supporters met at Dangarsleigh Hall to celebrate the launch of the Saumarez Creek Corridor project. The evening event was an opportunity for landholders living along Saumarez Creek to hear about our plans for the corridor, ask questions and express interest in being involved.

Four people spoke about different aspects of the project: I gave an introduction to the aims and objectives; Rob Curtis spoke about his long experience of planting trees in the area; Kev Hartley talked about Earth Funerals plans and how they will contribute funds to the corridor; and Dr Andrew Huggett, as the featured speaker, talked about his work with small birds in the area.

There were lots of questions and discussion and then we sat down to a roast lamb dinner prepared by Ultimate Barbecue. The atmosphere of the old hall, the good food and drink and the good company made for a very enjoyable evening, leaving everyone feeling positive about the upcoming project. The evening also gave us the opportunity to thank generous sponsors, including Brian and Priscilla Connor and Helen Stokes who were in attendance.

We have already provided some trees to Jane and Ray of Banded Bee Farm for the first planting on Saumarez Creek, but we are now ready to start finding sites, getting funding and starting planting in the coming Spring. We received a number of expressions of interest on the night from landholders keen to participate. This week we submitted a grant application to the Environmental Trust to fund works along the creek including revegetation and regeneration. Local Land Services has agreed to allow us to plant on Enmore Rd TSR and Saumarez TSR as well. We plan to use the funds we have raised from donations as leverage in government grant applications. It makes it a lot easier to attract grant funding if we can contribute our own funding as well.



Figure 2 Guests enjoy a shared meal after the talks (Photo courtesy of David Steller)

At Dangarsleigh Hall Rob Curtis, Dan Ryan, Bruce Whan and others spoke about their experience planting in the area: which species survived and grew well; preparation methods; flood height and spread. There is a lot of experience we can draw on to ensure plantings we do along the creek grow well.

Kev Hartley spoke about the developments Earth Funerals has made in their project to establish a natural burial ground in the area (adjacent to Saumarez Creek). He outlined how Earth Funerals will contribute a significant amount to Every Tree Counts for each funeral as a living memorial for people who have a natural burial. People will also be able to make donations and bequests as part

of this process. We hope to be able to run tree planting days in the future on public land for the families of their deceased loved ones.

Andrew Huggett is a bird ecologist who has been working with landholders in the Uralla, Arding and Gostwyck areas over the last few years in projects run by Southern New England Landcare. He spoke about the results of monitoring small bird numbers and the effect of habitat and connectivity on the type and number of birds present. It is no surprise to see that the greatest diversity of birds is found in large remnant vegetation patches with a high plant diversity that are well connected to other remnants. Andrew's work showed the importance of Blackthorn (*Bursaria spinosa*) as habitat for small birds as it provides protection from predators as well as food.



Figure 3 Andrew Huggett shares his results of bird monitoring in the area over many years (Photo courtesy of David Steller)

One of the main aims of the Saumarez Creek Corridor is to provide more vegetation for small birds and mammals to move through the landscape between the wooded western and eastern slopes of the Tablelands. Currently the over-cleared, dieback-affected landscape is a very hostile place for these creatures. As we plant we need to know if we are having an effect, so monitoring the range of species and their numbers will be a good way to do this. I asked Andrew what species are likely to use this corridor in the future.

Andrew suggested the following representative bird species would be useful. He has recorded these species foraging and, in some cases, nesting in plantings of different ages in this and nearby areas.

1. Habitat provided by young structured plantings - 5-8 yr-old, 50 m wide strip and/or stepping stone, with tree, shrub, groundcover layers – good working example of strips = Rob Curtis’s Site 3 (8 yo planting) on a rocky ridge east of Old Gostwyck Road, Kellys Plains, surveyed 2016-17:
 - Superb Fairy-wren
 - Grey Fantail
 - Yellow-faced Honeyeater
 - Yellow Thornbill
 - Rufous Whistler (summer)



Figure 4 Rufous Whistler

2. Mid-age plantings - 9-16 yo, as above configuration & strata – good working example at Council Reserve cnr Old Gostwyck Rd & Hariet Gully Rd, Kellys Plains & 12 yr-old block planting mostly eucalypt, acacia, leptospermum, callistemon planting, surveyed 2012 & 2017:
 - Superb Fairy-wren (especially in blackberry patches within the reserve)
 - Grey Fantail
 - Grey Shrike-thrush
 - Rufous Whistler (spring/summer)
 - Golden Whistler (autumn/winter)
 - Scarlet Honeyeater (summer, when snow gums flowering)
 - Brown Thornbill
 - Crimson Rosella
3. Established older plantings – 17-32 yo, typically 10-20 m wide and 120m – 2.3 km long strips of exotic cypress, pinus, cotoneaster, box elder,

poplar, eucalypts, callistemon & acacia with thick pasture grass ground cover . Examples – Doak family & neighbour’s 20 yo 15-20 m wide strip planting in Harriet Gully and Chiswick’s 32 yo exotic and native strip from east side of railway line to Big Ridge Rd, surveyed 2012-13, 2016-17:

- Buff-rumped Thornbill (more often found in remnant stringybark & other remnant forest)
- Grey Shrike-thrush
- Crimson Rosella
- Brown Quail
- Rufous Whistler (spring/summer)
- Golden Whistler (autumn/winter)
- Double-barred Finch (when seeding grasses are available)
- Tawny Grassbird (summer breeding migrant along Saumarez Ck, recorded bottom of Doak’s)



Figure 5 Eastern Yellow Robin

4. Remnant eucalypt woodland/forest. Examples of sites surveyed (2012-17) and their significant avifauna are at ‘Red Hill’ Gostwyck Rd Uralla (Speckled Warbler, Varied Sittella [nested 2016], White-throated Treecreeper, Diamond Firetail, Dusky Woodswallow [nested 2016]), ‘Summer Hill’ Barleyfields Rd Uralla (Satin Flycatcher, Eastern Yellow Robin, Varied Sittella, Crested Shrike-tit, Diamond Firetail, Red-capped Robin, Double-barred Finch, Grey Shrike-thrush, White-naped

Honeyeater, Brown-headed Honeyeater [autumn disperser/blossom nomad], Koala) and 'Kelvin Grove' remnant adjacent to satellite tracking station off Big Ridge Rd (similar to 'Red Hill' but without Speckled Warbler).

We hope to be able to have Andrew continue to monitor birds in the area, both with landholders he has been working with and new properties. It would be good to produce a simple guide to these birds so landholders along Saumarez Creek can monitor their reappearance and numbers.

Over the coming months we will be kicking into gear to get the Saumarez Creek Corridor happening:

- Preparing planting sites at Enmore Rd and Saumarez TSRs and Banded Bee Farm,
- Contacting landholders who submitted EOIs to plan projects,
- Promoting opportunities for people to make tax-deductible donations in the lead-up to the end of financial year,
- Applying for additional grant funding as opportunities arise, and
- Maintaining our existing Every Tree Counts sites, including the Armidale Urban Forest and using this to promote the work of ATG.



Figure 6: Plantings on Saumarez Creek on Robert Curtis property 'Stoneleigh' before (2004) and after (2010). (Photos courtesy of Robert Curtis).



Expression of Interest Form for Landholders on Saumarez Creek

Armidale Tree Group Inc.

Expression of Interest Form

Received: _____ (office use)

EOI No. _____ (office use)



Contact Details:

Name:	
Postal Address:	
Email:	
Phone:	Mobile:

Property Details:

Property Name:	
Property Address:	
Lot No.	DP:

See rates notice for Lot No. and DP

Project Description:

<p>Briefly describe the project you would like to undertake. If possible. Please provide information about the ha/km of the proposed revegetation and the ha of remnant vegetation to be protected including relevant existing flora. Attach additional pages if required.</p>
<p>Is the project part of a group application? Y/N If yes, please provide name or names of others in project.</p>

To submit this form, email to manager@armidaletreegroup.org.au or post/deliver to the ATG Manager as per details below.

Armidale Tree Group, 80 Mann St, Armidale, NSW 2350
Phone: 026771 1620 Web: www.armidaletreegroup.org.au ABN: 79 387 075 436

Enmore TSR Spring planting for Every Tree Counts

The Armidale Tree Group is planning to do a public planting for Every Tree Counts on the Enmore TSR in Spring and it would be great to have lots of volunteers come along for a planting day. We are currently working with Local Land Services on our planning and preparation. More info and a date to come.



Enmore TSR on Salisbury Waters at the end of Saumarez Creek. Our 'before' photos. (Photos courtesy of Alicia Cooper).



CHANGES IN THE BUSH

By Peter Metcalfe

The bush is never constant. The bush changes in both time and space. The bush changes during each day with the rhythm of the plants and the daytime animals. The changes between day and night are dramatic as are the changes of the seasons, even though we do not have the clear-cut seasons of the northern hemisphere. Floods and fire, droughts and rains bring rapid change to the bush. Unfortunately the impact of people is all too swift and visible. Changes may be slower and take years or decades to become discernible. Think back to the bush you knew as a child and you will know what I mean. If the bush still exists it is sure to be different because of weed invasion, garbage dumping, repeated fire or some other human impact. Even if we freeze the changes in the bush brought about with time, the bush still shows many subtle and some obvious changes in space.

ROCKS, SOILS AND PLANTS

Everyone has some idea of how vegetation changes with altitude as we climb up a mountain; from forest to snow gum to alpine herb field. These changes are mainly due to temperature and factors other than soil. However on a much smaller scale there are changes in vegetation as we walk up even a small hill. Often the key factor is the changing soil. There may be some extra factors that have an impact on the vegetation such as shelter from the wind or perhaps the presence of a frost pocket.

Even if the rocks are uniform across the countryside the soil will be graded, from deepest at the bottom to shallowest at the top of the hill. This change in soils on a hillside is referred to as a catina. The depth of soil is easily understood in terms erosion and deposition of soil. Gravity inevitably wins! Grain by grain the particles of soil are shuffled down the slope, leaving a thinner layer of soil on the top of the hill. The soil at the bottom of the hill may have other differences besides depth, for example greater clay content because clay is moved more readily than the larger sand particles, more water due to the drainage of water down the hill.

All these changes in the soil are reflected in the change in plants from the top to the bottom of a hill. In New England the tops of the hills are typically clothed in Stringybark trees, the mid slope with Yellow Box, Blakleys Redgum and the creek flat has New England Peppermint (if it has survived dieback) and Black Sallee. In each district there are sequences of vegetation that repeats on each hill from top to bottom that. Look for these patterns as you travel over the landscape. In the gullies around Sydney the change in vegetation is dramatic; from the low heath on the top to the rainforest elements in the gully bottom.

As you walk through the bush there are often quite significant changes in vegetation even though you have not walked far enough to have changed climate or aspect. In many cases these obvious, or perhaps just minor, changes in the plants will be due to a change in the rocks.

To some extent the rocks determine the types of soil to be found in an area. Different rocks have different chemical composition and weather to soil at different rates, forming soils of different fertility and acidity. The greater the contrast between the rocks, the greater the contrast between the plant community that develops on the soils.

Very often the agricultural practices will approximately follow a geological boundary. For example, the basalt will be cleared and cultivated for potatoes while the nearby granite is left relatively untouched. Similarly, sandstone soils will be left alone, except where some foolish optimist tries to grow crops on these twice leached soils. Nearby soils from shales or basalt will generally be used for cropping. The pioneers recognised that the agricultural properties of soil were reflected in the vegetation that grew naturally on the soil. "Yellow Box country" was definitely regarded as superior to "Ironbark country" Even these days you see advertisements for properties that describe the place in terms of the trees that used to grow there. Ironbark and spotted gum is synonymous with poor soil and paperbark teatree means a freshwater swamp.

In the bush you may either see the rocks change first or you may first become aware of the changing vegetation, depending on where you habitually focus your attention. It does not matter which you notice first, you can then look more carefully to see the relationship between between the changing soil and the plants.

ROCK/ VEGETATION INVESTIGATION

When you note a change in the soil look carefully at the plants that are to be found on the first soil type. Examine the soil for colour, texture and other features such as depth, structure and moisture. Compare these properties in the other soil. Look for a common plant that may act as a marker that shows where the boundary occurs in the soil. If possible pick samples of the commoner plants that grow on each soil. Compare your two collections of plants.

Similarly if you note a change in vegetation, look for the cause and see if it is actually the difference in the soil.

One of the most dramatic changes you can see is the difference between basalt and trachyte. Basalt is a rock low in silica and rich in minerals containing iron, magnesium and calcium. Basalt weathers rapidly to produce a deep, red clay

loam that is loose and open in texture. In contrast trachyte is high in silica , a mineral we are most familiar with in the form of sand or glass. Silica is extremely resistant to weathering and trachyte weathers so slowly that the forces of erosion can keep pace and only a thin layer of soil can accumulate. Such soils are aptly termed skeletal. Because the soil from trachyte is thin and sandy the plants that grow there have evolved to survive the rigours of both limited water and limited nutrients.

Trachyte plants are often characterised by small leaves coated with grey hairs or wax, reflecting the light and reducing water loss from the leaf. The leaves may also be held vertically, reducing the amount of light intercepted. Small leaves reduce the surface area open to water loss and also reduces the amount of nutrients needed for growth by the plant. One feature you cannot see easily is the adaptations of the roots that help the plant survive in such infertile soils. If you find legumes, that is, plants which have pods as fruit, such as wattles, peas or cassias, you can infer that the plants have nodules on their roots which contain *Rhizobium* bacteria that fix nitrogen from the air, aiding the plants' survival in a nitrogen poor soil. She oak trees may also be found on trachyte soils and these also have symbiotic organisms on their roots which allow the host plant to grow satisfactorily in nitrogen poor soil.

In contrast to the low shrubby vegetation to be found on the nearby trachyte, the vegetation on the basalt may be quite tall forest, appropriate to the climate. The deeper basalt soil provides a greater depth for the roots to penetrate and a corresponding increased supply of water. The soil itself is a better reservoir of plant nutrients. The greater bulk of vegetation with its greater leaf surface reflects the superior availability of water and nutrients in a basalt soil.

There seems to be an inverse relationship between the diversity of wildflowers and soil fertility. The poorer the soil the richer the wildflowers. If the basalt supports a tall forest the trees will cut out much of the light and the shrub layer will consequently be sparse. If the temperatures or rainfall do not allow a forest to develop on the basalt there may be a groundcover of herbs and grasses rather than flowering shrubs. This contrasts with the typical well developed layer of flowering shrubs that are to be found on the poor soils developed on sandstones, granites or trachytes.

Prime my Project



Every Tree Counts is one of three finalist in the Armidale AM Rotary Club 'Prime my Project' grant application process. It would be great if our members could support this event and we get a table together so let Alicia know if you are booking in (see below for booking details).

When: Friday 20th April from 6:00pm

Where: 'Tops' in the Armidale Bowling Club.

Cost: It will be a fundraiser with the proceeds going to the chosen Project. The cost will be \$35.00 per head and there will be a charity auction as well. Finger food will be provided and drinks will be available.

RSVP to president@armidaleamrotary.org.au by Wednesday 18th April and tell them you are with the Armidale Tree Group.



Relaxing by Saumarez Creek. (Photo courtesy of Robert Curtis)

Membership Application/Renewal

Name: _____

Address: _____

Telephone: _____

Email: _____

Payment method: cash / cheque /credit card /direct credit

Membership is \$5.00 per year

Donation \$ _____

Please find enclosed my/our cheque for \$ _____

Make cheques payable to Armidale Tree Group Inc.

or

Please debit my credit card for \$ _____

Card type: Visa / Mastercard only

Card number: _____

Expiry date: _____

CCV number: _____

Name on card _____

Signature: _____

To pay by Direct Credit Please remit payment to
BSB: 932000 Account No...620682 (please tag payment as 'subs')

accounts@armidaletreegroup.org.au

Donations over \$2.00 are tax deductible to The Armidale Tree Group Fund

Date processed: _____

Office use only
