

Autumn 2015

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Contact: (02) 48422594 upper.shoalhaven@gmail.com www.uppershoalhavenlandcare.com.au/	

The Landcare Election Issue

With government funding for Landcare is in long-term decline and a state government election during this publication month, we asked Monaro electorate candidates from the three major parties how much they value Landcare. Here are their responses.

Q: What are the key benefits of Landcare in the Monaro Electorate?

Pater Marshall, Greens



In most places where Landcare is active, it is an invaluable tool for educating the community, local landholders and managers about best practices in all aspects of land management.

It helps bring the local landholders together to tackle common problems and organise a coordinated approach to weeds, feral animal baiting programmes, management of waterways and maximising the benefits of funding and labour.

When project funding and labour are combined, real outcomes can be achieved in re-vegetation and rehabilitation projects and other projects that are too costly for the individual on a larger scale.



The Member for Monaro, John Barilaro

With a strong sense of stewardship, Landcare provides an important service to our communities. In the South East region, Landcare has more than 300 groups in 13 local network areas. These groups work on a variety of projects including soil health, landscape scale conservation and education and training.

Steve Whan, Labor



Landcare and its dedicated volunteers have been very important in our region, as local Member for eight years and as a former Minister for Primary Industries and now Shadow Minister I have observed much of the work that has been done with revegetation, protecting and enhancing riparian corridors etc. Landcare is a great example of primary producers working with other environmentalists with great results.

Continued on p8.



Upper Shoalhaven Landcare Council Publishing Policy

Upper Shoalhaven Landcare Council welcomes and encourages diverse and robust discussion on Landcare issues. We publish the Landcare Perspective as a forum for Landcare community to talk with itself about any Landcare issues and welcome contributing articles. The USLC does not endorse the views or material contained in the contributions of members of the public or other contributors. The USLC may edit, remove or exercise its discretion not to publish your contribution for legal, editorial or operational reasons, including if it is offensive, compromising, intentionally false or misleading or for other reasons. Our full publication policy is under development and a draft will be provided on request.



Vice President's Report

Greetings Landcare community. For those who haven't met me as yet my name is Richard Stone. As our President, Martin Royds is away in

Southern Africa on a Holistic Management study tour I'm stepping up to let you know about what the Upper Shoalhaven Landcare Council has been up to over the last few months. Holistic Management was first developed over 40 years ago by Allan Savory, a Zimbabwean biologist, game ranger and farmer who believed that a holistic, planned approach to grazing can be used as a management tool to reverse land degradation. We'll be looking forward to a report from Martin in the winter edition of the Landcare Perspective.

As the summer season draws to a close we can reflect on what a fabulous season it has been across most of the district which should set folks up well for autumn. It's certainly been a great season for some of my least favourite plants and I've been trying to get on top of a particularly pesky one, *Fleabane* or as some may know it rag weed. Thankfully with the good soil moisture around home it's been fairly easy to pull out but it needs to be bagged up immediately or the immature seed heads can still set seed even after its been pulled from the ground. Autumn is my favourite season to get any tree plantings underway, particularly with the good summer rains that we've had. Of course for a really successful planting project, preparation like most things in life is the key to a thriving planting, so good luck to those of you undertaking a reveg project and hopefully you get good follow up rains.

One of the projects that USLC is working on right now in partnership with the Braidwood Garlic Growers Group (BGGG) and that we were successful in obtaining a small grant through the 25th Anniversary Landcare Grants is "Growing the Braidwood Garlic Growers". This is a very

exciting project that seeks to put Braidwood as a regional hub for producing garlic and is a great continuum of our Regional Food Producers project. The project is being headed up by our ex-president, Colin McLean, Su Wild-River and Bronwyn Richards of the BGGG. I think that is a positive move away from our more traditional Landcare activities and wish all those involved in the project a great growing season and a bumper harvest.

Disappointingly we were unsuccessful in getting a Round 2 Green Army project up but are in the process of reapplying under Round 3. If you haven't heard about the Green Army it's a Federally Funded program that aims to introduce young folk to environmental works and can include works on locally significant infrastructure like community halls. If you have any projects in mind contact Su at the Landcare Office. Projects need to be ready commence between 1 June 2015 and 30 June 2016.

Another project that the USLC management team are working towards at present is a strategic planning process that is seeking to set a future goals and direction for Landcare in our district. With state and Federal funding on the decrease for the Landcare community as a whole we felt that this is an important step to take in looking towards a long term solution to supporting a financially viable, social, cultural and environmentally sustainable future for the organisation. We are hoping to get as much input from all of our Landcare groups as we can and will be sending out invitations to group chairs and secretary's in the not too distant future.

On a personal note I was recently accepted through an application process to attend an intensive leadership course over the next few months that is being supported by South East Local Land Services and the Federal Government. I'm hoping to gain insights as to what it means to be a leader and how with the new skills that I gain I can have a positive influence in setting out the strategic direction we take as an Organisation.

Yours in Landcare
Richard Stone,
Vice President, USLC

The Landcare Community

Article contributed by Landcare NSW

The Landcare community's hard work on the *Sustaining Landcare Campaign* is providing dividends. Landcare NSW has been in contact with Ministerial staffers, Ministers and Shadow Ministers and they have told us they are aware of the campaign. So the message is definitely getting through and it's been a great effort by everyone. But we are not there yet.



*Banksia tubestock at Currajuggle.
Picture by Su Wild-River,*

It is short weeks until the election and major parties are likely to announce policies soon. We are keeping our fingers crossed for Landcare. Whatever the result, we have certainly made our presence felt. Government Ministers and MPs are now better informed about what Landcare is all about and the challenges we face.

But what we really need is a new Landcare support program.

There are some positive signs coming out from the parties. But we won't know where we stand until we policy details are released.

Landcare NSW's proposal outlines four major areas that would unlock our thousands of volunteers so they can work to achieve Landcare's full potential. The proposal outlines the need for on ground coordinators throughout all regions; a central support team; an Aboriginal Landcare facilitator; and a Minister with portfolio responsibility for Landcare. This program would enable us to build upon our 25 years of knowledge and experience.

A relatively small injection of funding, \$7.5m per annum, would give Landcare the much needed support to continue

to work in partnership with Government. As you are aware, without a properly funded Landcare support program many Landcare groups will face an uncertain future. It is crucial that we continue to highlight Landcare's ability to leverage additional resources and the value of Landcare in your local community.



We need to continue speaking with our local members, and candidates, to highlight to them why sustaining Landcare is crucial to the future of sustainable agriculture, conservation and strong rural communities. Here are the websites for the major political parties if you'd like to email them directly. Alternatively you may wish to approach your local member, or the offices of Ministers Grant, Hodgkinson, Humphries and Stokes or the Leader of the Opposition Mr Luke Foley.

<http://www.nswnationals.org.au>; <http://www.nswlabor.org.au> <https://nsw.liberal.org.au><http://nsw.greens.org.au>

We'll keep you informed of progress. Once the policies are announced, we will analyse them and decide our



Some of the local Landcare community. On site at Jillamatong. Picture by Su Wild-River,

Update from the Temporary Landcare Support Officer



Busy times as always in the Landcare Office. I've been busy organising events, developing grant applications, kick-starting the Garlic project and helping to grow the Landcare momentum. In our district

A warm welcome to our many new members, and to our two new groups.

Majors Creek Landcare Group has re-started after a break (see the article on p.12), and Flood Creek Non-Nativist Landcare Group has started up as well. See their forum at <http://nonnativistlandcare.org/>

Thanks for all of the positive feedback on the *Landcare Perspective*. Sorry for any unintended offense taken for any editorial input. The *Landcare Perspective* is a forum for the Landcare Community to talk to itself, so please continue to send in your articles.

Su Wild-River at upper.shoalhaven@gmail.com

Ph 48422594

The Landcare Election Issue

Continued from Page 1



Labor Candidate for Monaro, Steve Whan

Q: Landcare funding has been cut at the federal level, and little of the remaining funding is earmarked to be passed on to district Landcare Councils, or individual groups. Do you support ongoing direct funding of community Landcare organisations?

Unfortunately recent changes have not been kind to Landcare, cuts to grant programs from Federal and State coalition governments have hurt projects and the debacle of the creation of the Local Lands Services has seen a real impact on Landcare and natural resource management overall.

I do believe it is appropriate for local Landcare groups to be able to receive direct grant funding for projects, they have done a terrific job over the years and it would be a real loss to see them fold or see willing volunteers disengage.

Q: If elected, how would you envisage supporting the Landcare movement and its outcomes in the Monaro electorate and beyond?

If elected a Foley Labor Government will be looking very carefully at the loss of focus on Natural resource management since the abolition of CMAs, we want land care to have a continuing role and we will look to provide State assistance to ensure it does.



The Member for Monaro John Barilaro

The NSW Government has been a long term supporter of Landcare initiatives through the Environmental Trust and Local Land Services.

Q: Landcare funding has been cut at the federal level, and little of the remaining funding is earmarked to be passed on to district Landcare Councils, or individual groups. Do you support ongoing direct funding of community Landcare organisations?

In the last three years, more than \$10 million from multiple Trust programs has gone to more than 90 Landcare projects to deliver on-ground or educational actions. This has included a \$99,912 grant given to the Captain's Flat Landcare Group to control woody weeds along the Molonglo River and its tributaries.

Q: If elected, how would you envisage supporting the Landcare movement and its outcomes in the Monaro electorate and beyond?

The NSW Government is currently considering how to support the continued expansion and development of Landcare over the coming years. It is important to build on the existing strength of the initiative, and the invaluable partnerships it has fostered, to deliver further on-ground outcomes. The NSW Government recognises the importance of long term funding certainty for the initiative and programs occurring under it.

Landcare groups and Landcare NSW will also be able to continue to apply for funding (including up to 10 per cent of project administration) under many of the Trust's competitive grant programs, for example the Restoration and Rehabilitation program and the Saving our Species Partnership Grants.



Greens Candidate for Monaro, Peter Marshall

Thank you for the opportunity to share our thoughts on Landcare and the essential role it plays in our communities.

Q: Landcare funding has been cut at the federal level, and little of the remaining funding is earmarked to be passed on to district Landcare Councils, or individual groups. Do you support ongoing direct funding of community Landcare organisations?

Yes! These individuals and groups know their area and know what kind of support and projects are needed. They are best placed to run projects and keep enthusiasm high, and when people work together informally using funds on worthwhile activities, bridges are built and communities are strengthened. As Greens Senator Rachel Siewert said when the Coalition Government cut Landcare funding not long after being elected, "gutting Landcare undermines efforts to ensure sustainable agriculture, address climate change and the impact it has on farmers. Drought assistance, investment in NRM and support for farmers to adapt to climate change is vital."

Q: If elected, how would you envisage supporting the Landcare movement and its outcomes in the Monaro electorate and beyond?

The Greens believe we need to continue to fund projects with long-term benefits, not only for the landholder but for the wider community. Land-owners cannot always afford to improve the health of waterways by fencing them off from stock and putting in off-stream watering

points. Doing this is not only good for the individual but creates better river systems for people in general and is essential in maintaining biodiversity.

In many parts of the Monaro, land-owners and their stock face threats from foxes, rabbits, wild dogs and pigs and many noxious weeds including serrated tussock, Broom, St John's Wort, thistles and African lovegrass. We must encourage coordinated approaches to these major issues facing land managers.

With loss of biodiversity at an all-time high, we must also ensure that there are effective projects running to protect endangered and threatened plant communities, recognising that this is not just the responsibility of landholders.

Landcare is a great tool for bringing people together and helping to build community resilience. It provides community members with the opportunity to share information and introduces new people to their community and allows them to learn the skills necessary for caring for their land.

Women Farmers; Unite!

- Nationwide land degradation;
- Lost production;
- Declining food quality; and
- Shrinking incomes.

The men have been running the show for too long without the feminine touch.

The Carrington Group of Concerned Citizens is developing a strategy to employ natural sequence thinking (the Peter Andrews System) and is seeking a large cohort of genuine and experienced women farmers to bring about change. Affiliated parties include the Tom Farrell Institute (University of Newcastle), the Mulloon Institute, Skillset Training, Tarwyn Park Training, Little River Landcare, Soils for Life and experts in the field of publicity. Wider collaborations are underway.

The pilot project will be focused on the South Eastern Local Land Services area. An Education Grant under the current round of NSW Environmental Trust projects is being sought.

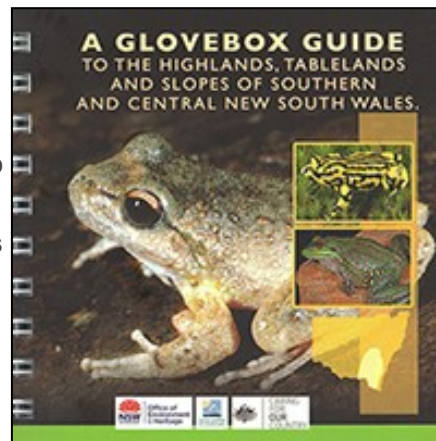
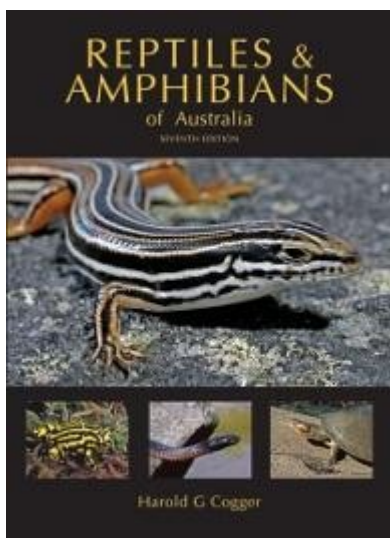
**If you need help to improve your land and your bottom line, contact Julia McKay:
Jacqua@skymesh.com.au OR call 02 48 444457.**

B4CC Biodiversity Program Felicity Sturgiss

Animals of the upper-Shoalhaven and the upper-Deua

The B4CC team are currently in the process of going through the best local guide books and determining which animals are likely to occur in the upper-Shoalhaven and upper-Deua. We have created lists so far for frogs, reptiles and mammals. These lists are published on the biodiversity website. With the amphibian list being published overleaf for your convenience. The list of likely birds & fishes is in development. Insect list? Maybe.

If you are an enthusiast and would like to contribute to our efforts to create lists of local species (the upper-Shoalhaven and upper-Deua) please do get in touch. Also—we are very keen to hear if you have an animal you think should be added to the list—or course one that you think should be removed.



A n excellent local guide to the frogs is A Guide

Harold Cogger's **Reptiles and Amphibians of Australia**. 2014. 7th edition. CSIRO Publishing.



An excellent guide to Dave Hunter's **Glovebox to the Highlands, Tablelands**

and Slopes of the Southern and Central New South Wales 2013. Published by Sydney Communities in Landscapes. Available to purchase from USUD landcare and Murrumbidgee landcare. \$12-15.



Upper Shoalhaven Landcare



B4CC Biodiversity Program

AMPHIBIANS LIKELY TO OCCUR IN THE UPPER SHOALHAVEN AND UPPER DEUA

Family	Common Name	Taxonomic Name
Limnodynastidae – Australian Ground Frogs	Giant Burrowing Frog	<i>Heleioporus australiacus</i>
	Eastern Banjo Frog (pobblebonk)	<i>Limnodynastes dumerilii</i>
	Brown-striped Frog or Striped Marsh Frog	<i>Limnodynastes peroni</i>
	Spotted Grass Frog	<i>Limnodynastes tasmaniensis</i>
Myobatrachidae – Australian toadlets or froglets	Common Eastern Froglet	<i>Crinia signifera</i>
	Tyler's Toadlet	<i>Uperoleia tyleri</i>
	Stuttering Frog	<i>Mixophyes balbus</i>
	Great Barred Frog	<i>Mixophyes fasciolatus</i>
	Haswell's Frog	<i>Paracrinia haswelli</i>
	Brown Toadlet	<i>Pseudophryne bibronii</i>
	Dendy's Toadlet	<i>Pseudophryne dendyi</i>
Hylidae – Tree Frogs	Green and Golden Bell Frog	<i>Litoria aurea</i>
	Booroolong Frog	<i>Litoria booroolongensis</i>
	Verreaux's Tree Frog	<i>Litoria verreauxii</i>
	Blue Mountains Tree Frog	<i>Litoria citropa</i>
	Bleating Tree Frog	<i>Litoria dentata</i>
	Brown Tree Frog	<i>Litoria ewingii</i>
	Jervis Bay tree Frog	<i>Litoria jervisiensis</i>
	Lesueur's Frog or Rocky River Frog	<i>Litoria lesueurii</i>
	Littlejohn's Tree Frog	<i>Litoria littlejohni</i>
	Leaf Green River Tree Frog	<i>Litoria nudidigita</i>
	Peron's Tree Frog	<i>Litoria peronii</i>
	Southern Bell Frog	<i>Litoria raniformis</i>

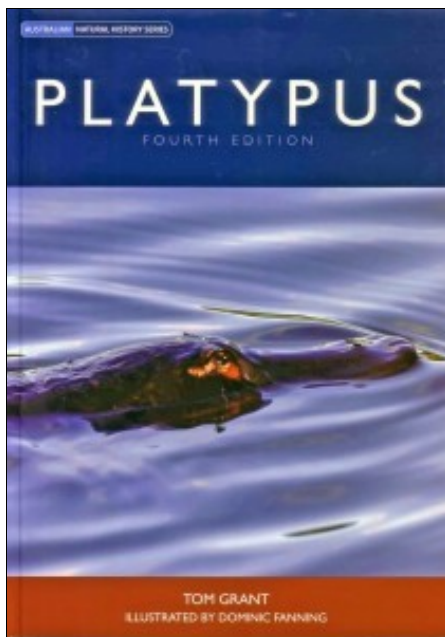


B4CC Biodiversity Program Update

Platypus in the upper-Shoalhaven & upper-Deua Catchments.

By Tom Grant

Tom Grant is currently an adjunct senior lecturer at the University of NSW and author of the excellent and informative book 'The Platypus – A Unique Mammal' which is the result of many hours of research, a lot of which was done here in the Shoalhaven River.



The platypus (*Ornithorhynchus anatinus*) is a relatively common semi-aquatic indigenous (native) wildlife species, which lays eggs, and feeds its young on milk. It spends around half of its time living in a burrow in the bank and the rest feeding in the water predominantly for small invertebrates living on the floor (benthic macroinvertebrates) of rivers, creeks, small lakes, ponds (including larger farm dams) and some wetlands on the eastern Australian mainland and in Tasmania, King Island and Kangaroo Island. It has an insulating fur coat, for which it was hunted until around 1900, and regulates its body temperature at around 32°C, often while swimming in near freezing water in the cooler parts of its distribution, including the southern tablelands of NSW (<http://australianmuseum.net.au/Platypus>).

Local Distribution

The platypus is widely distributed throughout the Shoalhaven-Deua Rivers systems, including the upper reaches of these catchments (BioNet. Atlas of NSW Wildlife <http://www.bionet.nsw.gov.au/>) and is perhaps one of the most commonly observed indigenous wildlife species in this area.

Habitat

Characteristics of the streams and their riparian margins are important to the maintenance of platypus populations in an area. **Most importantly, vegetation-consolidated banks provide locations for their resting and nesting burrows**, giving shade and organic input to stream food webs, including macroinvertebrate food species. Riparian vegetation also provides filtering of sediment and pollutants in run-off and protection from bank erosion and deposition of sand within the streams themselves. 'Ideal' platypus habitat consists of pool/riffle (rapids) sequences with gravel and/or cobble substrate, little accumulation of sand and/or fine sediments and earth banks consolidated by the roots of trees and/or shrubs and ground cover, including some plants overhanging the banks (Fig. 1 above, The Main pool in 1977).

Availability of platypus habitat

The ideal habitat described above is widespread in the upper Shoalhaven-Deua catchment, but there are also many sections of these rivers and tributary streams, which have suffered considerable bank erosion and sand accumulation. For example, Figure 1 shows the change in an initially large deep pool on the upper Shoalhaven River over 20 years (1977-1997). The change is due to sand accumulation, resulting from bank erosion in the river and in smaller catchment streams and gullies. This, now shallow section of the river, is much less suitable for foraging for food and **exposes platypuses to greater predation risk (mainly from foxes)** if they move between more suitable habitat areas upstream and downstream of this reach.



Upper
Shoalhaven
Landcare



B4CC Biodiversity Program Update

Threats to platypus populations

Yabby traps. Apart from predation by introduced foxes and dogs, especially in drought times, when platypuses may need to negotiate dry or shallow sections of streams, drowning in freshwater crayfish (yabby) traps is the greatest immediate threat to local platypus populations, especially in small streams with low populations. These traps are illegal to use in platypus waters (essentially east of the Newell Highway) in NSW (<http://www.midcoastwater.com.au/site/index.cfm?display=198202>).

Habitat degradation. The ideal habitat described above can be degraded by activities resulting in damage to riparian vegetation, bank erosion and sediments and pollution in run-off. Poor agricultural practices, including unlimited stock access to stream banks, uncontrolled run-off from yards, sheds and cultivated areas and poorly maintained creek crossings. Poorly managed forestry and mining can also degrade the streams on which the platypus depends. Currently more ecologically aware farm, forestry, and mine management, along with the extensive Land Care, River

are all being actively undertaken in many areas of the Shoalhaven-Deua catchment, although some of the earlier damage (such as large instream sand deposits – often called ‘sand-slugs’) are now probably permanent features of a number of reaches of streams in this system.http://www.platypus.asn.au/management_agencies_and_environmental_groups.html

Water demand. The platypus is entirely dependent on water in which to feed, so that increasing demand for water for farming, industry and human consumption brings competition between humans and the platypus. Careful water resource planning is essential, especially with regard to el nino/la nina droughts and floods and with climate change.

Other threats. Road, town and farm rubbish, bridge and road works, dogs and maintenance of pumps and pipes near streams have all resulted in some local platypus mortality.

http://www.platypus.asn.au/communities_and_individuals.html



Main pool 1977. Photo Tom Grant



Main pool 1997. Photo by Tom Grant

Progressing the Bungonia Heritage and Sustainability Project

By Anne Wiggan and Su Wild-River

The Bungonia Park Trust administers a public recreation area of about 15 acres at Bungonia Village. Its area was recently expanded to include a Crown Reserve and Travelling Stock Reserve which are designated as a Biodiversity Hotspot for boxgum grassy woodlands in the Goulburn-Mulwaree

Local Environment Plan.

The Trust is currently working on several projects to rehabilitate Bungonia and Woodward's Creeks and the surrounding landscapes as part of its larger village beautification plan.

The Heritage and Sustainability Project (HASP) is an initiative of the communities of Marulan, Tallong,

Bungonia, Towrang, the Pejar Local Aboriginal Land Council and the Ngunawal Traditional Owners. HASP is developing an integrated network of sites and facilities that showcase the history, heritage, amenities, attractions and commercial potential of the villages and the surrounding area. The project aims to give people more reasons to visit, stop and engage with the community and its environment and to develop closer partnerships.

This area is about 165 km south west of Sydney and ranges over 6-700 metres above sea level and offers the only easily navigable path across this section of the Great Dividing Range. Marulan sits amidst a narrow neck of land between the ridges and steep gorges of the Shoalhaven & Wollondilly Rivers. Just some 11kms wide, this stretch, known as the Marulan Ramp, has been the main south corridor inland since time immemorial. Eventually the rail links and later roads followed this

route. Prior to the coming of the Europeans, Marulan was the junction of four aboriginal territories and was the crossover point and the meeting place of these peoples. The first road southwards the Argyle road came East of the ramp through the Inverary/Bungonia area on its way to Braidwood and the sea. Bungonia was a major supply centre on Argyle Road, the earliest route southwards from the colony of Sydney.



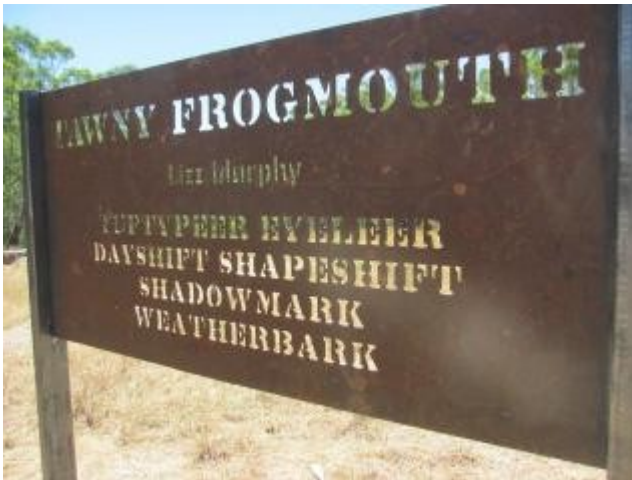
Wonderful workers establishing the garden shape and paths at the Bogong Aboriginal Bush Food Garden. Photo by Anne Wiggan.

There's also some botanical significance in the area. For example, the Argyle Apple (*Eucalyptus cinerea*) is a silver-leaved eucalypt that was named for the local Argyle County. Its main occurrence on the planet is in the Marulan, Towrang, Bungonia and Windellama areas. Its striking silvery leaves are one of the areas' unique export items sold in the cut flower markets around the world.

The HASP project vision is to develop a heritage precinct which incorporates museum facilities and a network of sustainable parklands that connect the local communities. The mission is to:

- Encourage an understanding of local Indigenous and European history and the resultant heritage,
- Enable youth to engage with local history and heritage,
- Preserve and showcase existing historical and heritage collections,
- Connect communities,
- Advance economic development through tourism,
- Develop sustainable and ecological practices using available modern technologies,
- Attract academic and research interest, and
- Operate according to ethical business practices.

One project element is the Bogong Aboriginal Bush Food Garden being developed at the Southern edge of Bungonia



Indelible stencil sign on Tawny Frogmouth, installed November 2014. Photo by Anne Wiggan.

village. This is in an area of remnant native vegetation closest to Woodward Creek which flows into Bungonia Creek and ultimately the Shoalhaven River. The project will improve access and knowledge of native vegetation values with native “bush tucker” and medicinal plants collected in a ‘garden’ shaped like a Bogong Moth. Bungonia is on the flight path of this valuable moth ‘bush food’. Primary school children from Windellema and the Pejar LALC, as well as homeschoolers, have collaborated on research and construction for this project with WWOOFERS and Goulburn Community Corrections. The garden is linked by walking tracks, seating and signage to our other areas of Heritage, Cultural and Environmental values throughout the village. The site paths and a water flow structures are already completed and seating and signage are in progress. This project has support from the Upper Shoalhaven Landcare Biodiversity 4 Carbon and Corridors Project.

The ANZAC Gallipoli Grove at Bungonia, a new project specific to the ANZAC Centenary celebrations 2015, have been supported from several sources. Supporters include a small grant from the Department of Veteran’s Affairs, Family and Community contributions and a partnership with visiting WWOOFERS and with workers from the Goulburn Community Corrections. The work includes a new disabled accessible picnic table, a plaque tree planting for the “Living Memorial” and brochures.

A Sustainability Linkage Project has a grant approved

from the Community Builders Fund and soon to be received. The project to attract visitors includes two stone walls, each with signs reading “TO BUNGONIA NATIONAL PARK” and an avenue of Bradford Pear trees already donated and planted by Goulburn Mulwarree Council at Howick Street in Bungonia. Boral kindly donated the stone and the Council, the footings.

Bungonia Park Trust has also received 3 mild steel, laser cut poetry panels into the Village Park landscape. The Indelible Stencil Project, conceived by Liz Murphy and supported by a partnership of 7 LGA councils was to integrate Words, Art and Landscape throughout their regions, thus creating interest trails and connections for visitors.

There are more activities planned if current funding applications are successful. Bungonia Park Trust have sought funding to repair and rehabilitate the eroding stretch of Woodward’s creek, just above the Bungonia Creek junction. An ongoing partnership with Boral sees offers of generous donations of stone and its transportation to assist in this planned project.

This inspiring range of projects stems from the dedication and vision of the small group of Trustees, and the effectiveness of its enduring partnerships with a wide range of groups.



Some of the Bogong players L-R Anne Wiggan Designer & project manager, Anne Marie Athea, Ceramics, Donna Edworthy Prince, Windellema, Ken Davies South East Local Land Services. Photo from Anne Wiggan.

Welcome back to the Majors Creek Landcare Group

by Karis Muller, Majors Creek Landcare/Majors Creek Catchment Guardians.

Majors Creek is a village of about 200 people near Braidwood NSW. It has the scars of old mine workings that have left a landscape of deep shafts, gullies and hillocks. In addition there is an encroaching infestation of broom and more recently of kunzea, as well as patches of brambles and thistles, all typical of the wider area. At the same time the village has beautiful gardens and forests and a waterfall that falls into a lush valley surrounded by caves. The picture by Matt Darwon gives you an idea of it.

Majors Creek has had a Landcare group for several decades. Its main focus has been on rehabilitating the old mine site at the edge of the village and cleaning up roadsides. In about 2000 the group was delighted to receive a grant of \$100 000 to support its volunteer work.

The funds enabled access roads, slashing and spraying to be done over the entire old mine workings, which are Crown land. Landcare also organised a group with other volunteers to plant natives along the erosion gullies there.

Member Randall Lemin used a tractor and slasher to occasionally clear those access roads until the closure of the local Landcare group. He and other members of the group periodically organized small groups to clear weeds such as broom along the village roads or at the old mine site and also with other volunteers cleared the site of a rare orchid at the cemetery, with a Landcare officer in attendance. They continue today to clear weeds in their own time around their area of the village, though the task is daunting.

In recent years the group had become very small despite recruitment efforts; various scenarios were investigated, such as amalgamation with another Landcare group or cooperation with other local volunteer groups. These having proved fruitless, and effective weed spraying having therefore become impossible, it was consequently decided in 2013 to suspend the group. The following year the group revived with a different, larger

membership as a new threat to the environment arose, namely the future possibility of a new gold mine at Majors Creek, Dargues Reef. The group renamed itself the Majors Creek Catchment Protection Group Inc. to emphasise the particular conditions now pertaining in the village, though it remains part of Upper Deua Shoalhaven Landcare.

We welcome new members to this new group. At present the task of caring for the area seems best served in this way; how the group will focus its attention in the future depends on matters beyond our control.



Majors Creek Waterfall. Photo by Matt Darwon.

Landscape Assessments at Mulloon

By Peter Hazell

Just before Christmas Peter Andrews, some landholders, and me undertook some initial onground assessment and planning work in the Mulloon watershed. Over three days we visited five properties. We plan to do at least another 17 days over the next 6 months. Our three days out were also used to test methods for documenting discussions at each location.

The high resolution 2014 imagery (<1m) acquired for the project is a valuable base layer. The image was taken in January 2014, which if you remember was very hot and dry. Because the imagery has an infrared band, which highlights green vegetation, it means that there is good contrast between areas that are photosynthesising and areas that are not (Figure 1).



Figure 1 – Infrared image of Mulloon creek as it flows under Kings Hwy between Braidwood and Bungendore. Red is actively growing vegetation. Used with permission.

Photosynthesis is how solar energy is converted into biomass. It is the primary mechanism which gives rise to virtually all life on the planet. But plants convert less than 0.1% of the solar energy that reaches the surface of the planet into biomass. The rest (up to 1,000 watts/m²) is converted into other forms of energy, such as heat.

On a sunny day, the flux of solar energy falling on 1km² of ground may be equivalent to the power generated by a large nuclear power plant (1,000 Megawatts).

Therefore, how the remainder of the solar energy, not converted into biomass, is managed while within the Earth's atmosphere (180,000,000 Gigawatts) is of vital importance, especially on a hot day.

Most of the solar energy that is reflected from a dry surface is converted into what is called sensible heat - heat we can feel. However, from a green vegetated surface up to 80% of the solar energy is converted to latent heat, energy absorbed when water evaporates, or

transpires from a plant (latent heat means that for each unit of energy that is absorbed in water vapour there is no change in temperature.) (Figure 2).

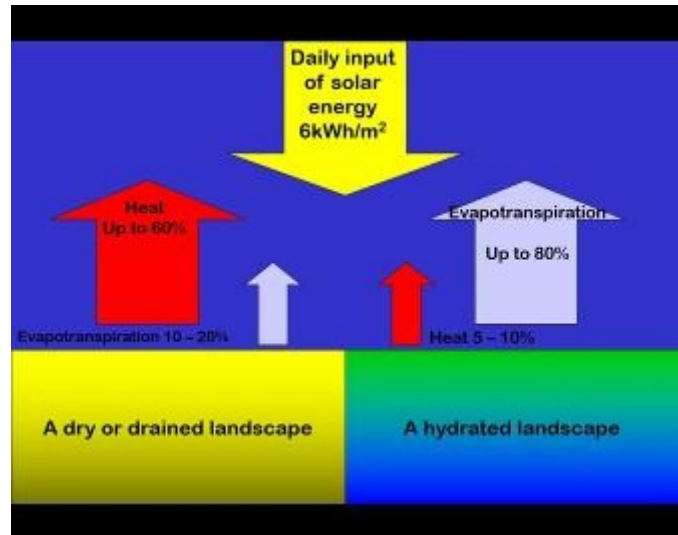


Figure 2 – Difference in energy conversion between a dry and a hydrated landscape. Adapted from Kravcik et al. (2007)

One of the aims of the Mulloon Community Landscape Rehydration project is to increase the green surface area of the Mulloon Watershed. So when it is hot and dry, there is plenty of green surface area buffering the landscape against extreme energy fluxes and, as Peter Andrews would say, producing a product at the same time i.e. biomass.

Intact landscapes can maintain their greenness (and their coolness) when it is hot and dry for extended periods (Figure 3). The MCLRPP hopes to show that an eroded landscape can rebuild and therefore regreen.

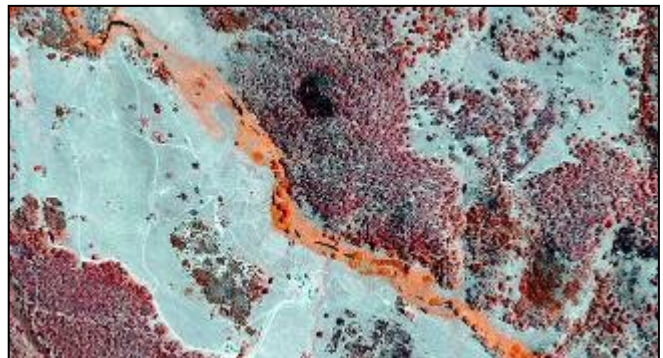


Figure 3 – Intact valley floor, chain of ponds system, January 2014. Upper Shoalhaven catchment. Used with permission

Kravcik, M. et al (2007) **Water for the Recovery of Climate – A New Water Paradigm**. Web book http://www.waterparadigm.org/download/Water_for_the_Recovery_of_the_Climate_A_New_Water_Paradigm.pdf.

Regeneration and Conservation Connections

By Lesley Peden and Su Wild-River

Upper Shoalhaven Landcare Council is grateful to the Regen Festival organisers for providing space and time for us at the event held at Majors Creek from 27 February to 2 March. One of our newest, young members Rebecca Klomp ran the stall together with Ryan Lungu and others.

As well as the stall, USLC ran a workshop on “Connectivity Conservation” in partnership with Kristy Moyle from South East Local Land Services and Lesley Peden from Kosciusko to the Coast. 33 Regen participants came along to share their knowledge and experiences on the topic.

Connectivity conservation recognises the particular needs of different species for moving around within landscapes. Animals like eagles, owls and kangaroos can readily move between disconnected, or thin patches of habitat, but most native species can't. Local threatened species like the Flame Robin, Golden-tipped bat, Green and Golden Bell Frog, Squirrel Glider, Long-nosed Potoroo, Smoky Mouse and Rosenberg's Goanna, all need relatively in-tact vegetation to move about in the landscape. Disconnections within the Great Eastern Ranges can trap these species when fire, flood,



Regen festival workshop. Photo from Lesley Peden.

drought or even a successful breeding season mean that individuals must move to survive.

During the workshop we discussed the ecological importance, and urgency of regeneration in the broad context of connectivity conservation. A key point is that the best conservation outcomes are achieved by being aware of the context and the different needs of the species using the landscape.

Growing the Braidwood Garlic Growers

By Su Wild-River.

More garlic will be grown this season than ever before in at least 18 properties around Braidwood, thanks to peoples' engagement with the *Growing the Braidwood Garlic Growers* project. The project is a partnership between Upper Shoalhaven Landcare and the Braidwood Garlic Growers' Group. \$20,000 from the 25th Anniversary Landcare Grant and is supporting local landholders to grow garlic crops for wholesale Australian markets.

Only about 20% of garlic sold in Australia is grown domestically so there is significant room for expanding the national crop. Braidwood is well placed to increase the Australian market share because our soils, seasons and water availability all lend themselves to excellent cold climate annual crops like garlic.

Project benefits for landholders include a garlic seed sourcing, soil tests, a project workbook to help plan crops and prevent pests and diseases. Participants are encouraged to join the “Braidgarlic” on-line forum as a way of sharing information. Much of the 2015 crop may be sold locally to build the seedbank for an even bigger wholesale harvest in 2016.



Some of the 49 participants at the project inception workshop. Photo by Su Wild-River.

Time to think about pig trapping

Article supplied by Rebecca Bradley, South East Local Land Services.

With the arrival of autumn, South East Local Land Services is prompting local land managers to be on the lookout for feral pig activity.

Feral pigs are a common problem in the district. They are a declared pest in NSW, and under the *Local Land Services Act 2013* all land managers have an obligation to control this species on their land.

South East Local Land Services, Senior Biosecurity Officer Phil McGrath said feral pigs impact soils, crops, fencing, livestock, native vegetation and endangered wildlife.

“They are a known vector for the spread of invasive weeds,” Mr McGrath said.

“Feral pigs carry and transmit serious zoonotic diseases (transferable from animals to humans), including leptospirosis and swine brucellosis.

“South East Local Land Services has staff and resources

available to support individual land managers and groups of adjoining land managers who would like to work cooperatively to manage feral pig populations.

“Coordinated group control programs are encouraged as they have proven to reduce feral populations over broad areas with more sustainable outcomes.

“The use of traps can be extremely effective in reducing feral pig populations, with the potential for multiple animals to be caught in one trap. Traps can be moved to make use of opportunities when pig activity is detected in any one area.

“South East Local Land Services has traps available for hire and can provide training and assistance to determine the best placement of these traps.

“It is a priority for South East Local Land Services to reduce feral pig numbers in the area,” Mr McGrath said.

For further information and advice on feral pig management please contact South East Local Land Services, Braidwood on 02 4842 2594, or contact Phil McGrath, Senior Biosecurity Officer on 02 4842 2536 if

you detect feral pig activity on your property.



Family of feral pigs. Photo from Wikimedia Commons, the free media repository at: [http://commons.wikimedia.org/wiki/File:Feral_pigs_\(6887430327\).jpg](http://commons.wikimedia.org/wiki/File:Feral_pigs_(6887430327).jpg)



Australian Government

The 'Corridor links and Carbon Sinks: Biodiversity for Carbon and Corridors' project is supported through funding from the Australian Government.

Sender:
Upper Shoalhaven Landcare Council
PO Box 9
Braidwood, NSW 2622