



Upper Deua Catchment Landcare Group Inc.

Araluen Creek Restoration Project

Community Newsletter

September 2022

General Meeting

The next general meeting of the UDCLG will be held on **Friday 16th September** 2pm at Robyn's Cafe, Majors Creek Mountain Rd. Join us for project updates and planning. New members always welcome.

Araluen Creek Restoration Project

The Araluen Creek Restoration Project is funded by the Bushfire Community Recovery and Resilience Fund through the joint Commonwealth & State Disaster Recovery Funding.

The project aims to deliver in stream works that will support the creek and its environs into the future.

Onsite Construction

Soil Conservation Service construction work will commence in the next few weeks with materials onsite and ready.

The remediation of the 13 sites will deliver stability, reduce sediment movement, control erosion and future bank collapses.

Material Delivery

460 tonnes of large rocks, 29 truckloads of root balls and 32 x 6 metre logs delivered to stockpiles located in practical and accessible locations. It is expected that all deliveries will be completed by September, paving the way for the actual works to commence at sites along the Araluen Creek from Neringla Bridge to the creeks confluence with the Deua River. Major construction and earthwork is planned to be completed by late September.

Vegetation of Sites & Volunteer Assistance to Plant Trees

Re-vegetation of the sites will be carried out once sites have been remediated and the works are protected. In October we will plant 1,500 native species at the remediated sites. The group will be calling on volunteers to assist in this task. Further information regarding Planting Days will be circulated soon.

Annual General Meeting- Preliminary Notice

The groups AGM will be held in October with a date yet to be set. Notice in next newsletter.

Membership

Upper Deua Catchment Landcare Group Inc membership is \$2 annually or \$5 for 3 years. Contact Treasurer, Robyn Clubb to join or check your status. E: clubbr@yahoo.com

Note: For insurance compliance purposes all volunteers participating in planting days and other activities are required to be a member of the UDC Landcare Group.

Project Information

Cath Harrison, Community Liaison
E: cathharri@gmail.com

UDCLG Newsletter

Newsletter is prepared and compiled by Cath Harrison with contribution from Clare Henderson, Upper Shoalhaven Landcare Council





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Rivers of Carbon and Waterwatch pay a visit to Araluen Creek By Clare Henderson and Erin Brinkley, Upper Shoalhaven Landcare Council

On Saturday 27 August Upper Shoalhaven Landcare Council hosted the fourth workshop in its *Araluen Creek Restoration Project* series. Twenty-five people gathered at the Araluen Campground to hear from presenters Lori Gould and Jed Pearson.

Lori is the on-ground Program Manager for *Rivers of Carbon*. This initiative promotes rivers of life by working with landholders to protect and restore rivers so the resident animals can thrive. Jed is the Waterwatch Coordinator at *Molonglo Conservation Group*, primarily working in the upper Murrumbidgee catchment area. Together they gave a comprehensive overview of looking after our creeks and assessing water health on the banks of the Araluen Creek.

Lori began the day by stating “*everything in the catchment ends up in the creek*”, whether it be runoff, sediment, effluent, heavy metals etc. “*We’ve created a landscape full of drains... shedding and channeling water at a great rate... whatever we can do to mess it up and slow it down is important*”. By “mess it up” Lori referred to ways to add complexity and habitat back to the banks by encouraging vegetation and deposits of woody debris.

She then showed us the Rivers of Carbon [Stream Condition Checklist](#) - an easy-to-use guide they’ve developed for assessing the health of a waterway you may want to look after. We were all pleased to hear Lori tell us this patch of the Araluen creek looked pretty healthy using the Stream Condition Checklist.

If you are thinking about intervening in your creek, Lori’s advice is to think about how it could impact or improve biodiversity. Noting there are a range of options for improving waterways such as fencing, water, plants, crossings, weed and willow control and structural works. The way in which these are applied depend very much on site specifics, the placement within a catchment, the condition of the site and available resources. A good starting point is the Stream Assessment and other resources freely available on the [Rivers of Carbon website](#).

Unfortunately, each riparian site is different and generally a one-size-fits-all approach doesn’t work. However, Lori did conclude by saying “*95% of waterway issues can be fixed by fencing, excluding livestock and thereby encouraging ground cover*”.

After morning tea, Jed stepped the group through all the tools Waterwatch use to monitor trends in water quality. These included measuring water temperature, pH, dissolved oxygen, electrical conductivity and turbidity.

The water quality results along the creek were good, although Jed was surprised by the high electrical conductivity reading. Electrical conductivity, typically measured in MicroSiemens per centimeter or $\mu\text{S}/\text{cm}$, tells you about the levels of ions or dissolved salts in the water. At 350 $\mu\text{S}/\text{cm}$, Araluen Creek was considerably higher in salts than the recommended $<100 \mu\text{S}/\text{cm}$. Penny Hayman, Secretary of Upper Deua Catchment Landcare Group, speculated “*it might be due to all the landslips upstream of the site, where newly exposed granites can leach minerals into the water*”.

Another important indicator Jed mentioned for measuring water quality is the presence of bugs. Of the 15 insect orders typically associated with waterways, most are sensitive to pollution to some degree. Losing a single order can have huge impacts for the riparian food chain. A startling example Jed gave us was that waterways missing a vital order, such as mayflies, may not be able to support platypus. Improving water quality and creating plenty of habitat to keep the bugs happy is important for maintaining dietary links.

After the workshop, Upper Deua Landcare is now inspired to get the tools they need to do regular water quality monitoring at five sites along Araluen Creek. This way they can measure the impact of the major works they are putting in to rehabilitate and revegetate the creek, including fencing off stock, and adding rocks and root balls to curb erosion.

If you are after more information on riparian management, Rivers of Carbon have great resources on their [website](#) www.riversofcarbon.org.au.



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Lori Gould shows the group what a "tidy" waterway looks like.
Photo: Erin Brinkley



Jed Pearson outlines the different tools Waterwatch use to monitor water quality. Photo: Erin Brinkley



Workshop participants have a go at sampling water from the Araluen Creek. Photo: Erin Brinkley

Workshop No 5

UPPER DEUA LANDCARE INVITE YOU TO OUR

native seed collection and propagation workshop

presented by Lyn Ellis
SATURDAY 3 SEPTEMBER 10.30AM - 3.30PM ARALUEN

RSVP TO CLARE@DACELO.COM.AU OR 0412 425 665

Suitable for beginners or those with familiarity with native plant seed collection and propagation. It will cover:

- benefits and importance of local seed
- tools and materials to collect seed
- different seed/fruit types and timing of collection
- techniques to collect seed
- seed processing, storage and record-keeping
- methods of seed propagation and equipment
- making your own propagation mix
- care for your native seedlings

FREE ENTRY. MORNING TEA AND A LIGHT LUNCH PROVIDED PLUS PARTICIPANTS GET A TRAY OF PLANTED SEEDS TO TAKE HOME

This workshop is kindly funded by the Upper Shoalhaven Landcare Council under their Landcare's Seed Bushfire Recovery Grants Project. The Project has been generously supported by the Australian Government Bushfire Recovery Program for Wildlife and their Habitat.

**Book your spot today with Clare
For Saturday 3rd & 10th September**

Workshop No 6

WEED MANAGEMENT WORKSHOP

SATURDAY 10 SEPT 9:30AM - 2:30PM
ARALUEN CREEK, ARALUEN (DIRECTIONS GIVEN UPON RSVP)

Register your interest to
Clare Henderson 0412 425 665 OR
upper.shoalhaven@gmail.com

At this workshop weed management experts, Apical, will outline restoration, remediation and weed eradication processes and principles.

They will also provide practical demonstrations of weed removal and bush regeneration on site along the Araluen Creek.

The focus will be on – creepers and native grasses, in particular, Madeira Winter Cherry Vine, an emerging threat in the region and weed grasses such as Serrated Tussock and African Lovegrass.

Techniques will address management and control measures for different stages of growth – seeding through to mature plants.

Morning tea and lunch provided.

This workshop is part of Upper Deua Landcare's Araluen Creek Restoration project.



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Target Weed of the Month

Madeira vine (*Anredera cordifolia*) Also known as: lamb's tails

Madeira vine is an invasive climbing vine with fleshy heart-shaped leaves and aerial tubers. It smothers other vegetation including the canopy of tall trees.

How does this weed affect you?

Madeira vine grows very quickly and it can: smother and kill plants from ground covers to tall trees cause branches and trees to fall due to the weight of the aerial tubers

reduce food and habitat for native animals
invade crops such as sugarcane
cause ill health if eaten by livestock.

Madeira vine is one of the invasive vines listed as a **Key Threatening Process in NSW.**

Livestock Health

Eating madeira vine leaves can cause temporary diarrhea in pigs and sheep. The effects on other livestock are not well researched. Sudden deaths have been reported, but not proven to be the result of madeira poisoning.

What does it look like?

Madeira vine is a perennial twining vine. It flowers in late summer and autumn.

Leaves are:

bright green, fleshy, heart-shaped, 2–15 cm long and 2–10 cm wide, hairless and sometimes glossy on stalks 5–15 mm long, alternate along the stem.

Flowers are:

white or cream, star-shaped with 5 petals up to 6 mm long, fragrant clustered on drooping flower spikes 6–30 cm long growing from the upper leaf axils.

Stems:

are up to 20 m long, are green or red green when young and brown when older have aerial tubers.

Aerial tubers are:

light-brown or green, potato-like and warty 10–30 mm long at the nodes.

Roots:

The roots also have tubers and these can be up to 20 cm in diameter.

Where is it found?

Madeira vine mostly grows in coastal areas of NSW with summer rainfall. However, it is spreading into dryer inland areas including the North West and Central West of NSW. It is native to South America.

What type of environment does it grow in?

Madeira vine grows in sub-tropical and warm temperate areas. It grows best in full sun or partial shade but is also tolerant of dense shade. It often establishes on the margins of rainforests and on the edges of waterways. It is partly salt-tolerant and can grow over mangroves.

How does it spread?

By plant parts

Madeira vine can grow from tubers, stems or leaves.

Mature plants produce thousands of tubers both along the stems and underground. There can be up to 1500 fallen aerial tubers per square meter under dense infestations. Small tubers fall to the ground as the vines mature and they can remain viable for many years, making control very difficult.

Plant parts are spread by water and by people dumping garden waste.

By seeds

Madeira vine rarely produces seeds. In Australia, madeira vines have only produced seeds in Toowoomba in South East Queensland. The seeds could be spread by birds, water and movement of soil.



Control

Successful weed control relies on follow-up after the initial efforts. This means looking for and killing regrowth or new plants. Using a combination of control methods is usually more successful.

To manage madeira vine:

treat isolated plants or sparse populations in areas you want to protect first, check for and treat regrowth from tubers and stems

avoid damage to native vegetation and other desirable plants, encourage the recovery of native vegetation to compete with the weed.

Prevention

Remove any madeira vine in gardens and dispose of all plant parts appropriately.



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Disposal

Madeira vine can be composted. Choose compost sites in areas that can easily be inspected and sprayed if needed. Sites should be in flood free areas and not in areas where the plant parts could be easily disturbed or moved. Contact your local council for further advice on disposal.

Physical removal

By hand

Dig up tubers and collect all plant parts for smaller or immature infestation sites. Dispose of tubers, leaves and stems, as they will regrow when in contact with the soil or if they are exposed to any sunlight.

If there is stress on the host plants, cut and pull the madeira vines from the canopy. When pulling the vines aerial tubers easily fall off the stems. Lay tarps or cloths on the ground to collect the aerial tubers to prevent the infestation from spreading. Cut vines can survive in the tree canopy and continue to drop tubers for up to two years. It is important to remove as much plant material as possible.

Biological control

The leaf-feeding beetle *Plectonycha correntina* has been released in NSW and Queensland. The beetle has established and caused significant damage to madeira vine at many of the release sites. Both the adult beetles and the larvae feed on the leaves. Leaf-feeding reduces the plant's ability to photosynthesise and depletes the energy stores in the tubers. Only use the beetles in flood-free and frost-free areas.

To allow the beetles to establish, do not use other control methods on the release sites. For more information about biological control for madeira vine contact your local council weeds officer.

Chemical control

Using chemicals in warmer months will give the best results. Though, a herbicide application during late winter may allow easier access and better control during the following spring and summer months.

Spot spraying

Spraying is suitable for seedlings and for plants growing along the ground, over structures or over other non-desirable plants. Apply herbicide to all foliage to the point of visible wetness.

If plants do not have tubers and are climbing on desirable plants, pull them off gently and spray them on the ground. Foliar spraying may be used after the stems have been treated using scrape and paint techniques. It can also be

used as an initial treatment, followed by scrape and paint of remaining living stems.

Follow up by spraying sprouting tubers when they have between 2 and 8 leaves.

Splatter gun

Splatter guns can be used for dense infestations of madeira vine that are difficult to reach. The specialised nozzle produces large droplets. This allows plants up to 10 m away to be sprayed with limited chance of spray drift. Spray small amounts of concentrated herbicide on the weed, taking care not to spray the leaves of native or other desirable plants. It is not necessary to cover all of the foliage.

Stem scraping

This method is suitable for vines of any size and for those with aerial tubers. It is the safest management option in sensitive environments. It is labour intensive, as every vine stem has to be treated individually.

Scrape sections of the vine down to the white fibrous layer and paint the exposed area with concentrated herbicide within 15 seconds.

Repeat the process as high up the stem as possible. If possible, scrape both sides of the stem. Do not ringbark the stem as this will prevent the herbicide spreading through the plant.

Remove and collect tubers along the stem near where they are to be scraped as they can easily fall off when the vines are being treated.

Cut stump method

Use this method for young vines without aerial tubers. It should only be used on vines with aerial tubers if it is possible to follow up the initial control by treating all of the sprouting tubers that fall to the ground. Tubers may continue to sprout for several years.

Cut stems and apply herbicide to the part of the vine that is attached to the ground and the vines remaining above within 15 seconds of cutting.

For technical advice and assistance with identification please [contact](#) your local council weeds officer.

For further information call the NSW DPI Biosecurity Helpline on 1800 680 244 or send an email to weeds@dpi.nsw.gov.au

For further weed control information go to <https://weeds.dpi.nsw.gov.au/Weeds>



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