treetalk

STORIES FROM THE SEEDLING BANK

TACKLING CLIMATE DISTRESS

Empowering youth through action-based projects

DECADES OF DEDICATION

Australia's largest ongoing urban restoration at Lake Claremont

PLANTING FOR THREATENED SPECIES

Building habitat for the Mount Lofty Ranges Southern Emu-wren

FROM TOKYO TO FAR NORTH QUEENSLAND

Brettacorp's Miyawaki forest

Acknowledgement of Country

Planet Ark acknowledges the Traditional Owners of the places in which we live, work and play. We recognise the enduring relationships they have with their lands and waters, and we pay our respects to Elders, past and present.

national tree day
PLANET ARK TOYOTA

National Tree Day Support Team

T 1300 88 5000
E treeday@planetark.org
W treeday.planetark.org

Contents

Foreword

As the CEO of Planet Ark, it is my privilege to introduce the latest edition of *Tree Talk: Stories from The Seedling Bank*. This report is a snapshot of the remarkable impact that the Seedling Bank program is having on communities across Australia. It highlights some of the inspiring stories of individuals and groups that receive funding through The Seedling Bank and showcases their dedication to environmental restoration and community engagement.

Each year, we are faced with the ever more urgent task of addressing environmental challenges and finding innovative solutions to safeguard our future. The projects featured in this report demonstrate the power of collaboration, passion and an enduring belief that positive change is possible.

From regenerating critically endangered subtropical rainforest to some of the largest ongoing restoration projects in Australia, these initiatives are making a tangible difference in protecting and restoring our precious ecosystems.

The benefit of this work goes beyond regenerating critical natural habitat. It also creates social good for local communities and reminds us of the restorative power of nature. Many of the projects supported by The Seedling Bank provide platforms for healing, resilience and social cohesion, whether that be by planting hope to combat climate distress in young people or by bringing communities together with a festival of music and tree planting.

Through *Tree Talk*, we celebrate the collective efforts of dedicated individuals, schools and community groups who have made a lasting impact on our environment. This year's edition has made a particular effort to emphasise groups working with nationally threatened flora and fauna species.

I would like to express my gratitude to all the beneficiaries, volunteers and supporters who have contributed to the success of The Seedling Bank program. Your dedication and passion inspire us all to continue our mission of nurturing a deep connection with and appreciation for our natural world.

Together, let us celebrate the achievements highlighted in this report and renew our commitment to preserving and protecting our environment for generations to come.

Rebecca Gilling,
Planet Ark CEO

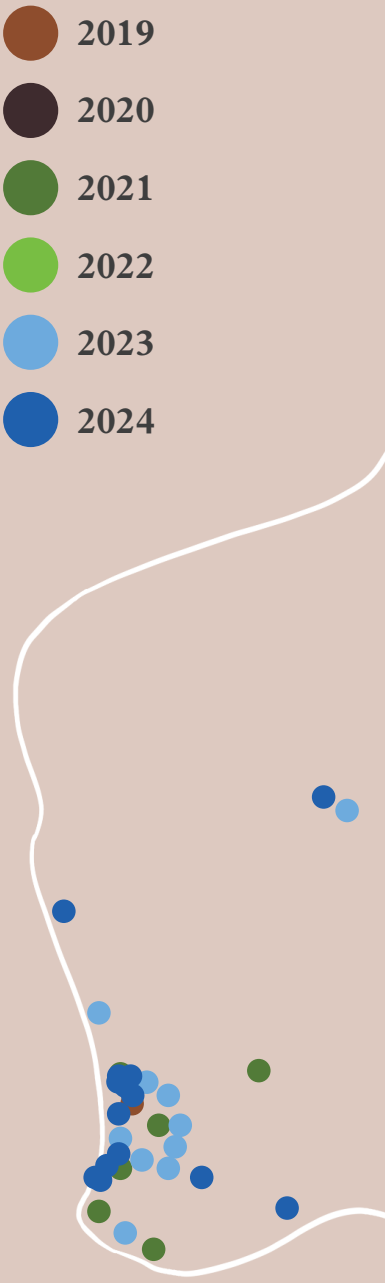
The Seedling Bank Sites

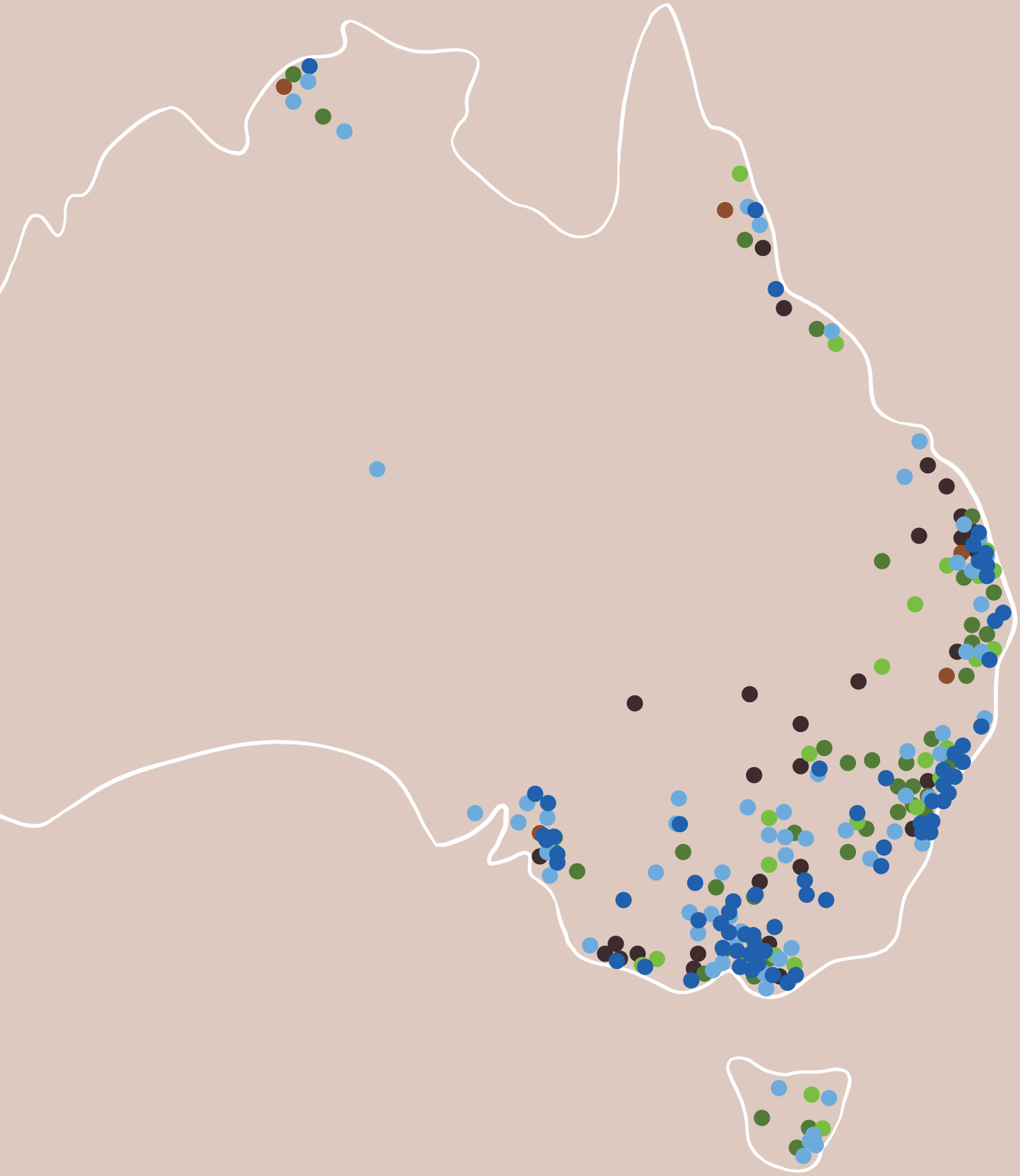
2019–2024

Established in 2019, The Seedling Bank is Planet Ark's restoration grants initiative. It is an evolution of the work we do through Australia's biggest tree planting and nature care event, also known as National Tree Day, which has seen Australians plant over 27 million trees since 1996.

The Seedling Bank is our way of giving back to the thousands of Australian volunteers who roll up their sleeves each year to give something back to the environment.

Over 251 school and community groups have planted 130,000 trees, shrubs and grasses since the program's inception. This year, another 129 groups will plant over 50,000 seedlings using funding from The Seedling Bank.





Climate distress in a changing world

FIGHTING BACK WITH TIME IN NATURE.

Bushfire smoke in remote area of Forrestania, Mount Holland, Western Australia. Photo: Josh Tagi.

In recent years, an emergent concern has gripped the global psyche: climate distress. As our planet grapples with the unprecedented triple environmental crisis of climate change, biodiversity loss and pollution, individuals worldwide are experiencing a profound emotional response to this crisis unfolding around them.

What is climate distress?

Climate distress encapsulates a spectrum of emotional and psychological responses to the realities of climate change and environmental degradation. It encompasses feelings of anxiety, grief, anger, helplessness and despair in the face of issues such as weakened ecosystems, extreme weather events, biodiversity loss and the uncertain future they herald.

Unlike clinical diagnoses, climate distress is a term that reflects the broader emotional toll of living in a world increasingly shaped by climate disruption, with the concept also often referred to as 'eco-anxiety' or 'eco-distress'.

The intersection with mental health

Climate distress intersects with mental health in multifaceted ways. For many, witnessing the destruction of natural ecosystems, displacement of communities and loss of livelihoods triggers a profound sense of anxiety about the state of the world. This anxiety is often compounded by a sense of existential dread about the future, particularly for the younger generations who stand to inherit the consequences of inaction.

Moreover, the relentlessness of climate-related news and the perceived inadequacy of global responses can lead to feelings of overwhelm and hopelessness, contributing to other clinical conditions like depression and post-traumatic stress disorder (PTSD).

The Australian context

Australia has been no exception in the increasing pervasiveness of climate distress and eco-anxiety globally, especially among young people. Over the course of 2023, two highly respected mental health organisations commissioned studies into the prevalence of these issues and their impact on younger Australians.

The organisation Headspace commissioned a national survey[1] of young Australians aged 18–25, finding that more than half (53 per cent) fear for the future because of climate change. Just under half (46 per cent) worry about whether they're doing enough to slow climate change, while almost six in ten (59 per cent) agreed that not enough is being done to address climate change at the government level.

These findings were echoed by a further study by youth mental health non-profit Orygen,[2] which found that a whopping two-thirds of young Australians aged 16–25 were being affected by climate stress. Young females were found to be particularly impacted, with about threequarters (74 per cent) reporting a negative impact from climate change on their mental health.

For many, witnessing the displacement of natural ecosystems… triggers a profound sense of anxiety about the state of the world.

Fighting back with time in nature

One action that has been identified as a potential intervention for climate distress is spending time in nature, and especially if it involves pro-environmental behaviour. Engaging in nature care activities such as planting trees to restore biodiversity, build urban green areas and improve community amenity is an example of such activity that may help address climate distress and eco-anxiety.

Time in nature has been proven to have a positive impact on mental health in general. Even a brief interaction with nature, such as a walk in a tree-rich park, can significantly boost mood and cognitive function. The calming effect of green spaces, as demonstrated by reductions in stress hormones experienced by those engaging with nature, is particularly noteworthy. Planet Ark research has previously shown that while 82 per cent of Australians feel spending time in nature is good for their physical and psychological wellbeing, only a quarter (25 per cent) feel they are doing so enough.[3]

Coupling time in nature with pro-environmental behaviours could help alleviate feelings of climate distress and eco-anxiety even further. Evidence suggests that engaging in proenvironmental activities can provide a sense of hope, help people feel like they are part of the solution, and make them feel that they are being heard.[4]

National Tree Day community planting with Woollahra Council. Photo: Aristo Risi.

Planting hope with National Tree Day

Planet Ark's National Tree Day provides an opportunity for individuals, schools and community groups to contribute to a more sustainable future and create lasting change by engaging with both nature and their local community. We believe this opportunity represents not only a chance to foster a greater sense of environmental stewardship among the youth of tomorrow, but also to serve as a potent antidote to despair where individuals can channel their concerns into tangible efforts for positive change.

Climate distress represents a significant yet often overlooked aspect of the climate crisis, with profound implications for individual wellbeing and collective action. However, by acknowledging these issues and building community strength, individual resilience and our relationship with nature, we can confront the challenges ahead.

Planet Ark staff planting at National Tree Day. Photo: Aristo Risi.

References

1. ABC (2023). 'Eco-anxiety looms as headspace survey reveals young people want climate change action', ABC News, 7 September 2023. Retrieved from: https://bit.ly/3XnH6Y9
2. Orygen (2023). 'New research shows the scale of climate distress among young Australians: we have 12 solutions', 18 August 2023. Retrieved from: https://bit.ly/3VFzCyw
3. Planet Ark (2018). 'Connect in nature.' Retrieved from: https://treeday.planetark.org/research/2018.cfm
4. Fava, N., Gao, C.X. & Baker, D. (2023). 'Climate of distress: responding to the youth mental health impacts of climate change.' Retrieved from: https://bit.ly/3VGKhZT

Supporting threatened species

THE POWER OF VOLUNTEER-LED MOVEMENTS.

*Adam Goodes, Aunty Barbara Simms and Costa planting a five corners (*Styphelia viridis*) on Schools Tree Day. The five corners is an extremely rare plant from the endangered Eastern Suburbs Banksia Scrub.*

Australia's unique biodiversity is declining

Australia's beautifully diverse environment supports almost 600,000 native species, making up around 10 per cent of all known species. Many of these are endemic, which means they are not found anywhere else in the world. This makes Australia one of only 17 'megadiverse' countries.[1]

Sadly, our unique biodiversity is declining. Since European settlement, 100 Australian endemic species, including plants, mammals, birds, frogs, reptiles and invertebrates have been formally listed as extinct or extinct in the wild (this represents 6 to 10 per cent of extinctions globally since the 1500s).[2]

The number of threatened species in Australia continues to increase, and more extinctions are expected without ongoing investment in biodiversity protection and regeneration.

Threatened species and communities

Threatened species are those considered likely to become extinct in the foreseeable future. In Australia, native species are listed as threatened at both the national and state level. Ecological communities, which are naturally occurring groups of native plants, animals and other organisms that interact in a unique habitat, can also be listed as threatened. Not all species or communities listed as threatened at a state level are listed as threatened nationally.

At the national level, threatened plants, animals and ecological communities are listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).[3] Under the EPBC Act, species can be listed as vulnerable, endangered or critically endangered (and extinct in the wild, or extinct).

THREATENED SPECIES BY STATE

If you are interested in species and communities listed as threatened in a particular state or territory, you can find more information at the links below.

NSW
https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species

VIC
https://www.environment.vic.gov.au/conserving-threatened-species/threatened-list

QLD
https://www.qld.gov.au/environment/plants-animals/conservation/threatened-species

SA
https://www.environment.sa.gov.au/topics/biodiversity/threatened-species-and-ecological-communities/threatened-species/threatened-species-in-sa

TAS
https://nre.tas.gov.au/conservation/threatened-species-and-communities/lists-of-threatened-species/full-list-of-threatened-species

ACT
https://www.environment.act.gov.au/nature-conservation/conservation-and-ecological-communities/threatened-species-and-ecological-communities#threatened-native-species

WA
https://www.dbca.wa.gov.au/management/threatened-species-and-communities

NT
Plants: https://nt.gov.au/environment/native-plants/threatened-plants
Animals: https://nt.gov.au/environment/animals/threatened-animals

Nationally threatened plants

Plants make up around 71 per cent of Australia's threatened species. There are currently 1,416 listed threatened plants (excluding 36 recorded as extinct).[4]

CONSERVATION STATUS - FLORA

Extinct 36	**Critically Endangered** 260
Endangered 577	**Vulnerable** 579

TOTAL: 1452

Peter Cooley, Adam Goodes and the IndigiGrow team in the nursery where the team are growing critically endangered plants from the the Eastern Suburbs Banksia Scrub. Photo: Adam Crews.

Nationally threatened animals

Australia has 578 listed threatened animals (excluding 68 recorded as extinct or extinct in the wild and eight listed as conservation dependent).[5]

Nationally threatened ecological communities

There are currently 103 nationally threatened ecological communities in Australia.[6]

CONSERVATION STATUS - FAUNA

Extinct		Extinct in the wild	
Frogs	3	Fishes	1
Reptiles	1		
Birds	22		
Mammals	39		
Other	1		

Critically Endangered		Endangered	
Fishes	25	Fishes	26
Frogs	18	Frogs	11
Reptiles	26	Reptiles	32
Birds	16	Birds	71
Mammals	9	Mammals	46
Other	42	Other	

Vulnerable		Conservation dependent	
Fishes	25	Fishes	8
Frogs	18		
Reptiles	26		
Birds	16		
Mammals	9		
Other	42		

TOTAL: 654

Why does Australia have so many threatened species and communities?

Most native species face multiple threats. In fact, evidence suggests that Australia's threatened species are exposed to an average of four different threats. Many nationally listed threatened species are impacted by at least one of three key threats: invasive species, ecosystem modifications, and agricultural activity.[7]

The Environment Protection and Biodiversity Conservation Act currently lists 22 key threatening processes.[8] These are pressures that threaten the survival, abundance or evolutionary development of a native species or ecological community.[9] More than half of the listed key threatening processes relate to the impacts of invasive species (both invasive plants and animals). Other key threatening processes are to do with pathogens and disease, land clearing, changed fire regimes and climate change.[10] Identifying and addressing key threatening processes is vital to successfully recovering Australia's threatened species.

References

1. Department of Climate Change, Energy, the Environment and Water. (2024). *Protecting biodiversity*. Australian Government. Retrieved 23 April 2024 from: https://www.dcceew.gov.au/environment/land/nrs/about-nrs/protecting-biodiversity
2. Cresswell, I.D., Janke, T. and Johnston, E.L. (2021). *Australia State of the Environment 2021*, independent report to the Australian Government Minister for the Environment. Retrieved 23 April 2024 from: https://soe.dcceew.gov.au/biodiversity/key-findings
3. Department of Climate Change, Energy, the Environment and Water. (2024). *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Australian Government. Retrieved 23 April 2024 from: https://www.dcceew.gov.au/environment/epbc
4. As of 28 May 2024
5. As of 28 May 2024
6. As of 28 May 2024
7. See reference 2.
8. As of 28 May 2024
9. Department of Climate Change, Energy, the Environment and Water. (2024). *Key threatening processes under the EPBC Act*. Australian Government. Retrieved 23 April 2024 from: https://www.dcceew.gov.au/environment/biodiversity/threatened/key-threatening-processes
10. Department of Climate Change, Energy, the Environment and Water. (2024). *Listed Key Threatening Processes*. Australian Government. Retrieved 23 April 2024 from: https://www.environment.gov.au/cgi-bin/sprat/public/publicgetkeythreats.pl

Photo: Dani Hansen.


Photo: Adam Crews.

Communities across Australia are supporting the recovery of threatened species and ecosystems

Many of Australia's threatened species and communities occur outside of national parks and reserves. This means local councils, private landholders and the broader community play an important role in protecting and restoring Australia's unique plants, animals and ecosystems.

In your own backyard, you can support threatened species by planting local native plants as habitat, keeping any invasive plants under control, or joining a local bush regeneration group.

Getting involved in National Tree Day within your local community is also a great way to make a difference. Each year, passionate groups from across the country undertake plantings to restore and regenerate native habitat. Planet Ark's Seedling Bank continues to fund community projects working to support Australia's threatened plants, animals and ecological communities. We are excited to showcase some of these inspiring groups in this instalment of *Tree Talk*.

Tackling climate distress

EMPOWERING YOUTH THROUGH ACTION-BASED PROJECTS.

Adaline Dickinson from Busselton Senior High School. Photo: Geoffrey Holt.

Eco-anxiety, a pervasive sense of worry and helplessness about the future of our planet, is increasingly affecting young people today. As they become more aware of the environmental crises unfolding around them, many students feel overwhelmed and disempowered. Addressing this growing concern requires more than just traditional classroom education – it demands action-based learning that provides students with a sense of agency and hope.

In collaboration, Busselton Senior High School and its Waalitj Kaaditjin's Stars Program are tackling eco-anxiety through an impactful and culturally significant tree-planting event. Over three days, 200 students will immerse themselves in a hands-on project that not only benefits the environment but also deepens their connection with their environment.

The event, set to take place at two locations designated by the local Wadandi Custodians, is an opportunity for students to immerse themselves in the study of the Sustainable Development Goals, climate change, and the importance of protecting biodiversity and native vegetation. The significance of this project is amplified by the cultural teachings of the Wadandi people about the local flora and fauna, which enrich the students' understanding of their ongoing connection to the land.

Carbanup Reserve will be the first site for planting. This high-value conservation area, a remnant of jarrah forest – recognised globally as a significant hotspot of plant biodiversity – holds immense cultural significance for the Wadandi people. Cleared in the 19th century for potato farming, only

15 per cent of the forest remains in the south-west, making the revegetation of the Wadandi trail with native forest plants a critical endeavour for ecosystem restoration.

Planting in the second location, Broadwater, will focus on coastal vegetation. Here, students will contribute to the restoration and preservation of coastal ecosystems, which further underscores the importance of biodiversity and environmental stewardship.

Guiding these educational events is Geoffrey Holt, Busselton Senior High School's Education for Sustainable Development Coordinator and a UNESCO Global Schools Alumnus. Geoff's extensive work in addressing eco-anxiety among young people and his passion for sustainable education make him an invaluable asset to the project.

Geoff's approach to mitigating eco-anxiety is multifaceted. "What we should be doing is step outside of the confines of a crowded curriculum and focus on educating our students through project-based learning," he asserts. This philosophy is at the core of the tree-planting event, where students gain agency by directly participating in environmental conservation.

"The overwhelming nature of the climate crisis is how it disempowers people," Geoff explains. "Students will watch a documentary about the loss of the Amazon rainforest and we as educators have to be extremely careful because we can exacerbate that eco-anxiety by exposing young people to the crisis, without being part of the solution." By involving students in tangible actions, the project aims to counteract this sense of helplessness.

Geoff believes that caring for the planet and understanding its cultural significance are intertwined. "A majorly important part of what we do is having the students learn about cultural appreciation. It's not just about the Welcome to Country; it's about understanding the significance of the flora and fauna to the Aboriginal people and their ongoing connection to Country, to the lands and waters."

The impact of such projects on students is profound. "You see a whole different side of these kids when you take them out and you do this kind of learning," Geoff notes. "The kids report back to us through surveys, and we consistently see how proud they are and how good they feel about the work they've done."

Through this tree-planting event, students are not only learning about sustainability but also embodying it. Geoff aptly sums up the essence of the initiative: "I firmly believe that caring and respecting the planet and caring for Country and sustainable behaviours – those values are caught, not taught."

By combining environmental action with cultural education, Busselton Senior High School and the Waalitj Kaaditjin program are providing a holistic and impactful solution to eco-anxiety, empowering the next generation to be stewards of the environment and champions of cultural heritage.

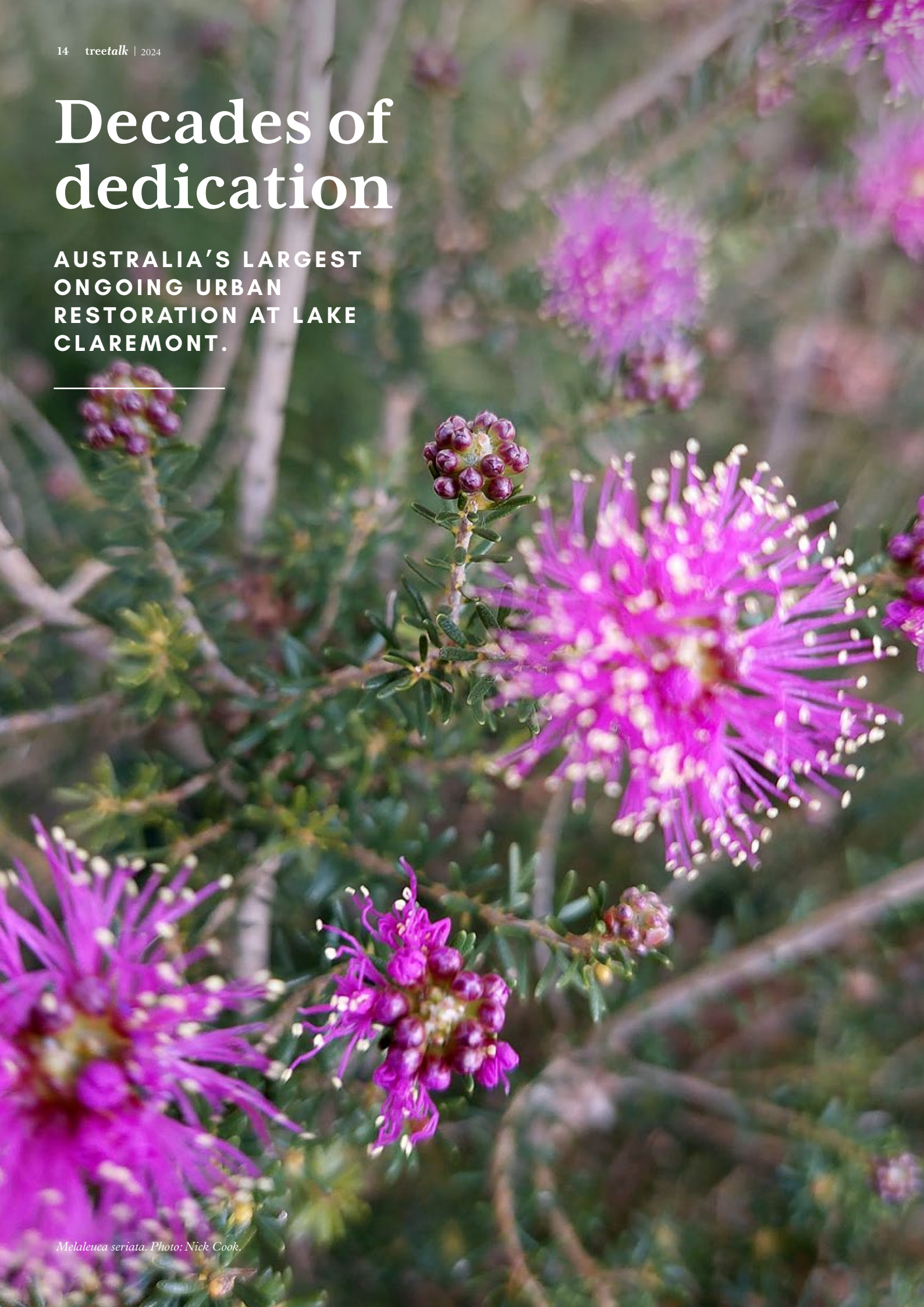
Selassie Abdelrahman, Kiara Tuhakaraina, Ciara Williams and Latisha Baumer are part of the Year 8 Stars Program. Photo: Geoffrey Holt.

"I firmly believe that caring and respecting the planet and caring for Country and sustainable behaviours – those values are caught, not taught."

– Geoffrey Holt

Decades of dedication

AUSTRALIA'S LARGEST ONGOING URBAN RESTORATION AT LAKE CLAREMONT.



Melaleuca seriata. Photo: Nick Cook.

The Friends of Lake Claremont (FOLC) volunteers are working closely with the Town of Claremont on Australia's largest ongoing urban restoration project, transforming Lake Claremont into a thriving ecosystem for both wildlife and the local community.

Restoration efforts first began 30 years ago on the wetland buffer of Lake Claremont – a designated Conservation Category Wetland and Bush Forever site just west of Perth, Western Australia. Following the detection of the introduced polyphagous shot-hole borer (PSHB) (*Euwallacea fornicates*) in late 2022, which infested and killed many trees, 50 trees were removed in 2023, with a further 80 identified for imminent removal.

The PSHB is an invasive beetle native to Southeast Asia. According to the Department of Primary Industries and Regional Development,[1] the PSHB poses a significant threat to the local tree canopy as it farms a fungus inside trees that kills the trees' vascular tissues and leads to their death. For heavily infested trees, the only effective treatment is complete removal and chipping into tiny pieces.

To restore wildlife habitat lost to the beetle, planting more trees and understorey in the area is essential. "Many significant trees have been removed due to PSHB and we are focused over the next few years on replanting gaps left by these large tree removals," FOLC coordinator Nick Cook says.

Planet Ark has had the privilege of supporting the FOLC's ongoing restoration efforts through The Seedling Bank since 2019, when FOLC became our very first grant recipient.

With our funding in 2022, FOLC planted 1,050 seedlings, including a mix of shrubs and ground covers to increase plant diversity and provide habitat for native animals inhabiting the area. Since 2022, FOLC's relocation project for endangered quendas has seen the successful establishment of a viable population at Lake Claremont, despite ongoing threats such as predation by domestic cats. Through their dedicated efforts and collaboration with communities, local authorities and schools, FOLC has transformed the area into a thriving ecosystem, re-establishing native habitats and fostering biodiversity.

This year, 800 native seedlings (100 trees, 350 shrubs and 350 ground covers) have been planted on the northwestern buffer of Lake Claremont. Volunteers replaced a large Port Jackson fig (*Ficus rubiginosa*) affected by PHSB infestation with native plants to enhance the local wildlife habitat, thereby benefiting insects, frogs, birds and brown bandicoots. The new vegetation will also provide much-needed cover for female snake-necked turtles, which are declining throughout south-west Western Australia, protecting them during nesting from predators such as ravens.

South West snake-necked turtle hatchling rescued and released by volunteers. Photo: Nick Cook.

Approximately 80 volunteers including local school children, FOLC members and other volunteers participated in planting, weeding and watering activities. Participants also had the opportunity to learn about biodiversity, native plants and bushland care during follow-up tree care projects.

Overall, the project contributes to the area's function as a regional ecological corridor, linking inland bushlands, the Swan River and the Indian Ocean. The population size and diversity of bird species in the area have steadily increased since restoration efforts three decades ago, with over 100 species now residing in or visiting the area. Some bird species such as the variegated fairy-wren (*Malurus lamberti*) have also made a comeback, noting the project's success in improving habitat quality and enhancing biodiversity.

"By replacing lost trees and creating thriving habitats for wildlife, this ongoing urban restoration project at Lake Claremont presents a significant step towards preserving Perth's unique biodiversity, addressing biodiversity threat and fostering long-term ecological resilience," Nick says.

Reference

1. Department of Primary Industries and Regional Development (2024). Polyphagous shothole borer. Retrieved 12 June 2024 from: https://www.agric.wa.gov.au/borer

Planting for threatened species

BUILDING HABITAT FOR THE NATIONALLY THREATENED MOUNT LOFTY RANGES SOUTHERN EMU-WREN.

Photo: Braydon Stanford.

Nestled in the heart of Ngarrindjeri Country, the Watchalunga Nature Reserve is a serene landscape, dotted with red gums and meandering creek lines. Amidst the lush vegetation, a tiny creature flits through the underbrush, barely perceptible to the naked eye. This is the Mount Lofty Ranges southern emu-wren, one of Australia's smallest and most elusive birds. With its mouse-like figure and delicate, emu-like tail feathers, this bird symbolises the fragile beauty of the reserve's ecosystem.

Dr Lucy Clive, Science and Knowledge Project Officer at Nature Foundation, is at the forefront of an ambitious project aimed at preserving and growing the population of these endangered birds. "We now have the responsibility that this area could now be the largest population of emu-wrens in the region," she says. "We want to look at growing the population as much as possible but also look at engaging with our neighbours, ensuring connectivity outside of the nature reserve and contributing to the whole region."

The main goal of this project is to create a thriving habitat for the emu-wren across the entire Watchalunga Nature Reserve. The Nature Foundation hosts volunteer-driven planting events, aiming to plant 1,750 native plants provided by a local nursery. Dr Clive explains, "When we acquired the property in 2014, the land just looked like a manicured lawn." Since 2017, over 5 hectares of land have been transformed, creating a sanctuary for the southern emu-wrens and other wildlife.

Watchalunga is not just a refuge for emu-wrens. This 92-hectare reserve, part of the critically endangered Swamps of the Fleurieu Peninsula ecological community, is also home to significant


Photo: Bill Doyle


Photo: Bill Doyle

South Australian biodiversity. It provides essential aquatic habitats for native fish like the nationally vulnerable Yarra pygmy perch and the nationally endangered Murray hardyhead. "Our lignum bushes provide the emu-wrens with little islands throughout the nature reserve, which creates a corridor for them to safely travel across the property and expand their habitat," Dr Clive adds.

The planting events are more than just conservation work; they are community-building activities. The Nature Foundation is committed to engaging with the Ngarrindjeri people, whose land stewardship traditions are deeply intertwined with the local environment. "The projects like Watchalunga really helped solidify our partnership with the Ngarrindjeri people. The Ngarrindjeri community have been involved with activities such as setting out camera traps, carry out fish monitoring and our annual planting events," Dr Clive shares. Volunteers from all walks of life come together for these planting days, united by a common goal.

Plant species diversity is also a priority. "When we have a planting event, we usually have about 15–20 different native plant species that get planted," Dr Clive says. The diversity of plants not only supports the emu-wrens but also strengthens the entire ecosystem. "The restoration work that we're doing, controlling all the weeds and monitoring feral impact, will help the biodiversity of the emu-wren habitat by promoting the health of the invertebrate community that the emu-wrens feed on."

Measuring the success of these efforts involves annual vegetation surveys and emu-wren population counts. "We've been planting annually since 2017, and the first lignum planted is now taller than a car," Dr Clive notes proudly. The emu-wren surveys, conducted during the breeding season, are showing promising results. "The surveys are now regularly picking up emu-wrens' presence in revegetated areas. They're moving and expanding their habitat on the property, which is phenomenal to see."

"We've been planting annually since 2017, and the first lignum planted is now taller than a car."

– Dr Lucy Clive

Looking ahead, Dr Clive is optimistic about the future of the emu-wrens at Watchalunga. "It would be great to grow the population and get it to its maximum capacity," she says. "Knowing that the birds we have are protected and the habitat they've got is providing them that safe haven even in those potentially tough drought years is a significant milestone for us."

As volunteers plunge their hands into the soil, planting the seeds of tomorrow's habitat, they are not just saving a species – they are nurturing a legacy of biodiversity and community for generations to come.

Katanning Landcare

HEALING FARMLAND WITH COMMUNITY PLANTING DAYS.

Photo: Amber Bateup, Katanning Landcare.

On farmland located in Noongar Kaneang Country, in the southwest region of Western Australia, students, community members and Landcare volunteers are working together to heal agricultural land.

The planting site is home to Nick O'Halloran and his red kelpie, Tom. Wheat for bread, pasta and cakes, and oats for a cosy winter morning porridge are just a few of the crops his farm produces. The planting sites are part of a salt-affected creek line. Although some vegetation remains, more trees and shrubs are needed to soak up the water. When groundwater comes to the surface, it brings salt with it in some locations. If salt encroaches on agricultural land, it will impact the ability to grow crops and negatively affect food production.

National Tree Day Coordinator and Katanning Landcare Project Officer Annabel Paulley organises events to promote Landcare to town residents and farmers. After working with Nick on a project late last year, Annabel pitched the idea of holding a community planting day on the farm. The creek line needed over 15,000 trees and shrubs, so Nick jumped at the chance for community members to come and share in his Landcare project.

Residents in towns can be somewhat isolated from what's going on in the agricultural landscape around them, so this is a great opportunity for farmers to bridge that gap by welcoming community members onto their farms.

"Inviting the community to revegetate farmland gives the townsfolk the chance to get out in nature and see what farmers are doing to heal the land," says Annabel.

Community members can build positive relationships with farmers and learn about how Landcare projects are helping to restore agricultural landscapes for the benefit of the whole community.

"There's something so wholesome about planting trees in a group," Annabel says, "it feeds your soul."

The native shrubs and grasses will also provide much-needed future habitat and foraging plants for native animals and birds including the endangered Carnaby's black-cockatoos (Ngoolark in Noongar language). The cockatoos visit the Katanning area between July and January each year, travelling inland from coastal areas to breed in blocks of remnant native vegetation. They breed in monogamous pairs for life, nesting in hollows in old eucalypts which must be at least 100 years old to have hollows large enough. The mums and dads creche their young in a 'nursery tree', hidden high up among dense foliage. Land-clearing and deforestation has contributed to their decline, which has seen more than 90 per cent of their main foraging, breeding and roosting habitat disappear since European settlement.

Volunteers will be planting white gum (*Eucalyptus wandoo*) trees, which will provide future nesting hollows for black-cockatoos. A variety of hakeas and acacias will also be planted as future food sources for these birds.

School students and community members hosted a three-day planting extravaganza called the Katanning Multicultural Wildlife and Landcare Weekend. The event was hosted in June to give the seedlings the best chance to establish their roots before the long, hot summer returns.

Nick O'Halloran and his red Kelpie, Tom. Photo supplied by Katanning Landcare.

Landcare Illawarra

REGENERATING CRITICALLY ENDANGERED SUBTROPICAL RAINFOREST.

Curry's Mountain Estate. Photo: Andrew McNeil.

In the beautiful Illawarra region south of Sydney a dedicated group of volunteers have worked with private landholders for over a decade to protect and regenerate threatened ecological communities. They will build on their legacy this National Tree Day by planting trees, shrubs and grasses grown from locally sourced seed within critically endangered subtropical rainforest.

Landcare Illawarra is a network of 16 community groups and hundreds of volunteers who undertake environmental repair activities across the Illawarra region of New South Wales. The group's umbrella program, the Illawarra Woodlands and Rainforest Project, is a regional ecological restoration project that has been running since 2009 with funding from a range of sources.[1] The project focuses on rebuilding threatened ecological communities by using the species in them for a range of purposes, such as windbreaks, wildlife corridors and ecoforestry.

Emma Rooksby is the current chair of Landcare Illawarra and joined the organisation in 2021. She works with the rest of the Landcare Illawarra committee, along with a part-time Local Landcare Coordinator who is funded by the NSW Government, to increase public understanding of, and efforts towards, protecting and restoring local ecosystems. Aside from the Illawarra Woodlands and Rainforest Project, the organisation also provides a range of educational activities for community members and landholders, including workshops on topics such as weed management or plant identification, guided walks (also known as 'walkshops'), and regular 'Talking Landcare' nights,

the most recent of which covered control of feral species.

The Illawarra region boasts unique biodiversity and is the northern or southern limit of distribution for many plant and animal species. However, a significant proportion of the native vegetation (around 75 per cent) has been cleared, leaving only small and isolated remnants. Subtropical rainforest is one of the ecological communities that has suffered the most clearing.[2] Much of the vegetation Landcare Illawarra is working to protect occurs on privately owned land. Therefore, over the past decade, the organisation has worked with more than 150 private landholders across the three local government areas of Wollongong, Shellharbour and Kiama to control weeds and restore threatened ecological communities on their land.

One of these properties is Curry's Mountain Estate, located in Rose Valley in the Kiama local government area.[3] Landcare Illawarra and Curry's Mountain Estate staff regularly run joint events at the Estate, including seed collection activities. Of enormous significance, the property is home to part of the largest remaining expanse of native forest in the Kiama council area. The native forest on Curry's Mountain Estate consists of four different ecological communities, including the critically endangered and highly diverse ecological community known as *Illawarra–Shoalhaven subtropical rainforest of the Sydney Basin Bioregion*. When mature and in good condition, Illawarra subtropical rainforest is generally dense and complex in structure, with high species diversity. However, the community is impacted by clearing and fragmentation, introduced plants and animals, altered hydrology and fire regimes, nutrient enrichment, pathogens and disease, and climate change.[4]

Emma says, "Coming to a place such as Curry's Mountain and seeing the difference that community planting has made over the years is inspiring. Over the years we have learned that, in the right location, and under suitable conditions, rainforest trees can grow without requiring the shelter of nursery plants such as wattles or eucalypts. We have seen the amazing ability of rainforest to re-establish itself over time, even after extensive clearing and degradation, but giving threatened ecological communities such as Illawarra subtropical rainforest a helping hand is also very worthwhile."

Many native species call the Illawarra's subtropical rainforest home, including threatened plants and animals. Native animals commonly found in this ecological community include ringtail possums, sugar gliders, bats, swamp wallabies, skinks, water dragons, frogs, butterflies, snails, and many birds.[5] The size of the native forest, of which Curry's Mountain Estate is a part, is also significant, as it supports better ecological function and greater biodiversity than smaller and more isolated patches of forest. A study of the ecology of the Estate, completed in 2002 by ecologist Dr Kevin Mills, found that threatened species likely to occur there included the powerful owl, sooty owl, spotted-tailed quoll, long-nosed potoroo and various species of insectivorous bats ('micro-bats'), as all were recorded nearby.[6]

This year for National Tree Day, with the support of Planet Ark's Seedling Bank, Landcare Illawarra will continue revegetating the critically endangered subtropical rainforest at Curry's Mountain Estate. Student volunteers from the University of Wollongong will plant 500 native trees, grasses and shrubs grown by Landcare Illawarra's micro-nurseries from locally collected seed. Emma explains these will include some rainforest plants that are rare in the region and/or at the southern limit of their range, such as brush wilga (*Geijera salicifolia*), white beech (*Gmelina leichhardtii*) and small shade nettle (*Australina pusilla*). Plantings will also include species that are common in Illawarra subtropical rainforest. While some of the plants going in have been grown at the Curry's Mountain Estate nursery from locally sourced seed, the majority have been grown from seed collected from rainforest elsewhere in the region to encourage high genetic diversity.

Andrew McNeil, manager of Curry's Mountain Estate, says: "It's always great to have members of the community volunteer to help restore the forests here, particularly students and young people. They can experience the rainforest, look out across the rolling hills to the sea, and get some exercise planting trees in an idyllic environment."

References

1. Local Land Services NSW. (n.d.). *Landcare Illawarra: Woodlands and Rainforest project*. Retrieved 5 June 2024 from: https://landcare.nsw.gov.au/groups/landcare-illawarra-inc/woodlands-and-rainforest-project/
2. Department of Climate Change, Energy, the Environment and Water. (n.d.). *Conservation Advice (incorporating listing advice) for Illawarra–Shoalhaven subtropical rainforest of the Sydney Basin Bioregion*. Retrieved 5 June 2024 from: https://www.environment.gov.au/biodiversity/threatened/communities/pubs/148-conservation-advice.pdf
3. *Curry's Mountain Estate*. (n.d.). Retrieved 5 June from: https://www.currysmountainestate.com/history
4. Refer to reference 2.
5. As above.
6. Mills, K. (2002). Ecological Survey: Curry's Mountain, Gerringong, Municipality of Kiama. Available from the author on request.

From Tokyo to Far North Queensland

BRETTACORP'S MIYAWAKI FORESTS

The smallest Miyawaki forest in Tokyo. Photo: Brett Krause.

The smallest Miyawaki forest resides in the world's most densely populated city: Tokyo. This mega-city is home to double the population of Australia packed inside an area the size of Sydney. A bird's-eye view from the plane shows the mind-boggling urban sprawl, but within Tokyo, pockets of green offer shade, relief from the heat and a place to connect with nature.

Japan is the birthplace of the Miyawaki method. This method of reforestation was founded by Dr Akira Miyawaki over 50 years ago. In the 1960s, Dr Miyawaki completed his doctoral studies in botany at the University of Tokyo. By the 1970s, Japan experienced rapid industrialisation and urbanisation, leading to heightened concerns over pollution and deforestation. Dr Miyawaki's pioneering work in forest restoration gained significance amidst these environmental challenges, offering a practical solution for forest restoration.

"The forest is the root of all life; it is the womb that revives our biological instincts, that deepens our intelligence and increases our sensitivity as human beings," Miyawaki wrote.[1]

It took years of experimentation to come up with this method, in which native species are densely planted together. The plants compete for resources as they race toward the sun, while underground bacterial and fungal communities thrive. Where a natural forest could take at least a century to mature, Miyawaki forests take just a few decades. They grow 10 times faster and 30 times denser.

Far across the Pacific Ocean, in a place known for its diverse natural beauty and rich biodiversity,

Photos supplied by Brett Krause.

Miyawaki forests are sprouting up at incredible rates. Brett Krause, long-term National Tree Day coordinator, was the first person to plant a Miyawaki forest in Australia. He runs a charity called Brettacorp, dedicated to creating forests in the Cassowary Coast region of tropical Far North Queensland. Since establishing the first Miyawaki forest in 2017, Brett has been a staunch advocate of the method, successfully planting 15 Miyawaki forests in this tropical haven. The growth rates in this region are astonishing, with forests planted just three years ago now reaching heights of up to 10 metres.

The area is home to endangered species such as the southern cassowary (*Casuarius casuarius johnsonii*) and mahogany glider (*Petaurus gracilis*). The southern cassowary is known as a 'rainforest gardener' because many plant species rely on it for seed dispersal and germination. Unfortunately, habitat destruction and fragmentation have contributed to the cassowary's dramatic decline. The creation of habitat hubs and small networks of forest allows endangered species to move through the landscape and find food or shelter.

"It's heartening to know there was nothing here before, and now I see birds sitting on the branches, enjoying the seeds of the seedlings we planted," Brett says.

Earlier this year, Brett travelled to Japan to meet the people closest to this technique. The first Miyawaki forest was established in 1974 at Nippon Steel, where Dr Miyawaki helped turn industrial land into a forest, and the smallest was planted at a school in Tokyo. Regardless of size, these little pockets of forest provide a space to connect with nature and feel the benefits of even the smallest patch of green. Miyawaki forests can be planted in tiny spaces as small as a car park to a huge area the size of a football field.

"What I'd say to the next generation is, if you want a better world, get out there, dig a hole, and plant a forest."

– Brett Krause

Yutori is a Japanese word often used to describe a state of mind or lifestyle characterised by having ample time, space or mental capacity, free from stress or hurry. In the context of nature, it may evoke feelings of tranquillity and openness experienced when one is in natural surroundings. Brett describes the power of the Miyawaki method as healing not just the planet but humans too.

Over the past 50 years, Miyawaki forests have gained global recognition for their ability to develop robust ecosystems in small urban spaces. Their significance as community activities, educational tools and measures for biodiversity conservation continues to grow. "What I'd say to the next generation is, if you want a better world, get out there, dig a hole, and plant a forest," Brett says.

Through community planting events, Brett and his team have so far planted over 115,000 seedlings and he's not planning on stopping any time soon.

Reference

1. Miyawaki, A. & Box, E.O. (2007). *The healing power of forests: The philosophy behind restoring Earth's balance with native trees.* Kosei Publishing Co., Japan.

Woodfordia Inc.

BUILDING CULTURE, COMMUNITY AND A THRIVING NATURAL ENVIRONMENT THROUGH THE ARTS.

Woodfordia's dedicated community of volunteers have been restoring the former dairy farm the festival takes place on since 1994. Photo: Matt Craven.

Woodford Folk Festival is undoubtedly one of Australia's most iconic celebrations of music, arts and performance. Held annually over six days and six nights, from 27 December through to 1 January, the event brings together over 2,000 local, national and international artists, musicians and presenters for an immersive and colourful cultural gathering.

This event was first held in Maleny in 1987 as the Maleny Folk Festival, but as the festival grew in reputation and prominence, it quickly outgrew the Maleny Showgrounds. So, in 1994, the festival organisers purchased a 500-acre former dairy property to provide the festival a permanent home and established Woodfordia Inc. as its organising group.

Woodfordia is a not-for-profit, community-driven organisation with a mission to stimulate, facilitate and foster the preservation and promotion of folk culture for the common good. While the festival is focused on the week from Christmas through to the New Year, Woodfordia works all year round to ensure both the festival itself and the Country it takes place on retain their historic beauty and meaning.

That Country is part of the Jinibara Nation, rich in dreaming places, ceremonial grounds and stories – the perfect location for a festival dedicated to community, environment and the interaction between them.

Bill Hauritz, founder and director of Woodfordia Inc. and the Woodford Folk Festival, says the community has embraced their responsibility for stewardship over this special country from the outset.

"We felt from the beginning that as part of our responsibility in studying our lore, our folklore, of Australian culture that we should include environmentalism as part of our DNA.

"When we bought the land at Woodford, it was an existing dairy farm. A fairly tidy dairy farm, but devoid of trees, apart from a sort of eucalypt forest that was creeping onto it.

"So, we felt we needed to redesign this land that was described as clapped-out cattle country, for the purposes of cultural development, with a long-term vision to revegetate and regenerate the land."

Based on a vision of inclusive and creative community, culture and tradition, Woodfordia aims to pass knowledge across generations through story and ceremony, including knowledge of our natural environment. That began with a weekend working-bee in 1997 when a group of committed festival volunteers offered their time and toil to plant trees, a first step towards restoring the property to some semblance of the area's natural environment.

Soon this gathering became a beloved annual event known as the 'Tree-Planting Weekend', an opportunity for the community to get their hands dirty and do something good for a place they were growing to love. Since then, the Woodford community has put over 110,000 trees into the ground as well as encouraging species diversity by nurturing existing native plants and managing invasive weeds.

"... we felt we needed to redesign this land that was described as clapped-out cattle country, for the purposes of cultural development, with a long-term vision to revegetate and regenerate the land."

– Bill Hauritz

The Conservatree program is led by Bill Hauritz, Woodford Folk Festival founder, and Costa Georgiadis from Gardening Australia. Photo: Matt Craven.

The Seedling Bank grant won by Woodfordia will be used to build understorey beneath mature trees on-site. Photo: Matt Craven.

Conservatree holds monthly working bees where volunteers of all ages offer their time to nature restoration. Photo: Matt Craven.

As Bill explains, "The stronger plants survived the droughts and the rains and the varied weather we experience here, and now many of those trees are standing 30 or 40 feet high.

"It's a process that is ongoing and we have a long-term plan of what we want the site to look like once it's fully matured, but it has started to look like a rainforest and is emerging into a very beautiful parkland," he adds.

Although in 2020 COVID-19 put an end to the Tree-Planting Weekends, Woodfordia maintains two programs dedicated to continuing restoration of the site's natural environment.

The Tree Huggers group takes care of tree plantings and maintenance, while the Conservatree group is focused on developing and caring for the understorey, including the diversity of sedges, shrubs and vines that provide homes and food for many invertebrates, mammals, reptiles and birds.

Asked how critical these groups have been to the ongoing regeneration of country at Woodford, Bill says it is the symbiosis between the arts community and environmental stewardship, as well as the dedication on both sides, that allow the program to be a success.

"We're essentially a cultural organisation, not an environmental one. But it is our partnerships with the environment that's helped us develop new audiences for our cultural program. And our cultural people really like planting trees and getting involved on that side," Bill explains.

"I think that watching that happen has given us a great shared vision of our future amongst everyone involved, and that is a community of many thousands of people. It's helped build a better festival and a better cultural event."

Part of this year's planting events will take place on National Tree Day (28 July) and is supported by a grant from Planet Ark's Seedling Bank. That activity will focus on building the understorey below the previously planted and now mature trees by planting small trees, shrubs, grasses, ferns, vines and orchids.

"That grant from the Seedling Bank will really help us pay for good quality plant stock and it allows us to be a bit more ambitious about it too. We've discovered a myriad of species of vines that can grow here, and a lot of them are native species endemic to this very area, including bush foods that many people have never heard of."

Bill emphasised that the grant from the Seedling Bank would help not only with the planting, but support additional research of the area's native species diversity and their use as bush foods. He said the benefits are not just financial but also a boost to the volunteers' morale and "a bit of a pat on the back" for their efforts.

Woodfordia has big plans for the future of its space. In addition to continued tree plantings and nature care, future projects include collecting seeds from previously planted trees, broadening the genetic diversity of plants on-site with that of the same species from different regions in South East Queensland and New South Wales, and enhancing habitat by providing specific food plants for butterflies and other invertebrates.

When asked about his vision for the future, Bill harkens back to the community aspect that has made the nature program a success to date.

"It's never my vision, it's our vision. If a vision sits in one person's mind, it's not worth anything. But a shared vision of all these other little visions added together into one… creates a canvas of many colours.

"To have a community that lives together, works together, plays together and celebrates together, that's the power that's going to achieve great things, including regeneration of the environment."

"It's never my vision, it's our vision. If a vision sits in one person's mind, it's not worth anything. But a shared vision of all these other little visions added together into one… creates a canvas of many colours."

– Bill Hauritz

To find out more about Woodfordia's nature care programs, or to get involved, visit:
woodfordia.org/get-involved/conservatree

Woodfordia from above. Photo supplied by Woodfordia.

Photo: Aristo Risi

Acknowledgements

Report production

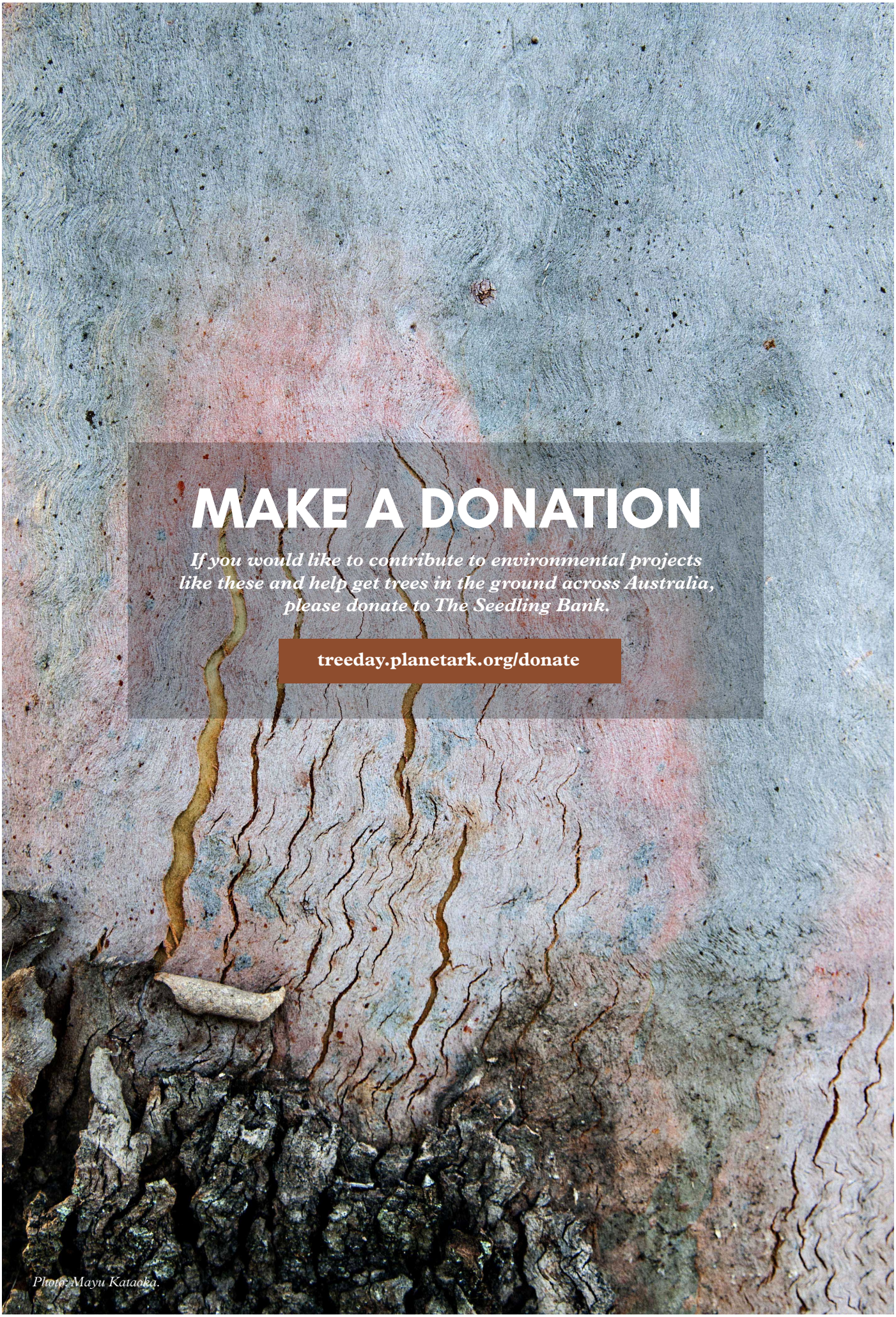
Authors: Jennifer McMillan, Katie Loughran, Liam Taylor, Claire Laws, Ashmeeta Subra
Editor: Sabine Borgis
Design: Sarah Wiecek
Front cover image: Nicolas K, Shutterstock
Back cover image: Adam Crews

Partnership: Toyota Australia

A 25-year partnership between Toyota Australia and Planet Ark has been the foundation of the National Tree Day program. Together, we have seen over 27 million trees, shrubs and grasses planted across the country. After consulting with our volunteer community and identifying a need for funding to support schools and community groups in their tree planting efforts, Toyota Australia assisted Planet Ark in launching The Seedling Bank in 2019. The program's impact has grown in each of the four years since and we are proud to share the stories of some of the beneficiaries of these grants, highlighting the important work of community-led environmental projects across Australia.

Beneficiaries featured in *Tree Talk* 2024

Geoffrey Holt – Busselton Senior High School
Nick Cook and Heidi Hardisty – Friends of Lake Claremont
Doctor Lucy Clive – Nature Foundation
Annabel Paulley and Nick O'Halloran – Katanning Landcare
Emma Rooksby (Landcare Illawara) **and Andrew McNeil** – Manager of Curry's Mountain Estate
Brett Krause and the Brettacorp Inc. team
Bill Hauritz – founder and director of Woodfordia Inc.



MAKE A DONATION

If you would like to contribute to environmental projects like these and help get trees in the ground across Australia, please donate to The Seedling Bank.

treeday.planetark.org/donate

Photo: Mayu Kataoka.

Looking for more stories?

W: treeday.planetark.org
E: treeday@planetark.org
IG: @nationaltreeday
FB: /NationalTreeDay

national tree day
PLANET ARK TOYOTA