

bushland news



Issue 132 **Summer** 2024-2025 *Time of Birak and Bunuru in the Noongar calendar.*

Roleybushcare 30th anniversary celebration



Photo – Diane Horgan



Department of Biodiversity,
Conservation and Attractions



Bushland News is a quarterly newsletter of the Urban Nature program to support community involvement in bushland conservation.

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This publication is available in alternative formats on request. Current and archived issues of *Bushland News* are available at <https://dbca.wa.gov.au/bushlandnews>.

Next issue

Autumn Bushland News

Autumn *Bushland News* contributions should be sent to [Urban Nature](#) by **11 February 2025**. *Bushland News* seeks original contributions. If your submission has been or may be published elsewhere please let us know. Compiled and edited by Diana Biondini, Jaimee Nobbs and Pippa Clifton.

Roleybushcare 30th anniversary celebration

By Mady Colquhoun

[Roleybushcare](#) celebrates 30 years of community service, support, and education in 2024 – an outstanding achievement!

Initially formed as the [Roleystone Dieback Action Group](#) in 1994, our prime aim was to protect all tree species susceptible to *Phytophthora* dieback disease, caused by the introduced plant pathogen [Phytophthora cinnamomi](#), in the reserves of Roleystone. During the 30 years our group has evolved to encompass a much wider variety of environmental support and community engagement projects. [Dieback treatment](#) via stem injection is still the focus of most of our monthly field days but we morphed into Roleybushcare in 2007, joining with other caring locals to provide a united space for all things concerning our environment.

Front cover: Roleybushcare volunteers Peter Blaney-Murphy (left), Bob Fitzpatrick and Cat Williams ready to inject jarrahs with phosphite syringes on the day of the Expo. Photo – Diane Horgan.



Tricia Fairweather injecting jarrah trees with phosphite syringes. Photo – Diane Horgan

Why do we focus on dieback mitigation treatment?

Phytophthora dieback is consistently listed in the [State of the Environment Report](#) for Australia as a significant threat to biodiversity and habitat loss and close to [half of our WA plant species are susceptible to *Phytophthora* dieback](#).

What do we do to the trees?

We inject a [non-toxic chemical \(phosphite\)](#) into the trunks of local susceptible tree species (mainly jarrah, banksia and snottygobble) in Roleystone reserves on an approximately five to six-year rotation.



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Volunteers are upskilled with how to treat trees and how they can [reduce the chance of bringing dieback onto their own properties](#). To our knowledge we are the only environmental volunteer group primarily focused on *Phytophthora* dieback in Australia – and possibly the world!

Field days occur monthly at a rostered reserve, and we treat all susceptible trees using large tree syringes and a phosphite solution. We have lots of drills and hundreds of plastic tree syringes as the treatment dose for each tree is determined by the girth of the tree. Large jarrah trees can take many, many syringes!

Everyone is welcome at our monthly field days. Groups have included Scouts, Cubs, Guides, Bush Rangers, plus students and workplaces completing various community service requirements.

We welcome all volunteers and ensure they understand dieback, plus how and why we treat the trees with this process before they join our regular volunteers to inject them.

What else do we do?

Members of Roleybushcare collect seeds and grow local provenance understory species, under license and in dieback-free growing conditions, to revegetate local degraded reserves. We also conduct weeding and planting days in these areas.

We have a member-developed interactive [flora database](#), which enables on-the-spot identification of native (and non-native) plants in Roleystone reserves and there is a similar fungi database being prepared.

Our annual plant sale of local dieback free native species at the Roleystone Shopping Centre gives us



Lee Hassan with her beautiful plant posters of Roleystone flora at the Roleybushcare 30-year anniversary expo. Photo – Diane Horgan

an opportunity to engage with the community, particularly providing dieback education for newer residents. Our group is also willing to provide advice and support to assist other volunteer groups regarding treatment processes or for setting up their own dieback treatment equipment. A visit to one of our field days will show what is involved. The [City of Armadale](#) supports our programs, and we work with them to ensure our plans are linked with other environmental initiatives, such as bushfire mitigation strategies, to ensure the best outcomes.

To celebrate our 30-year milestone, we recently held an [Environmental Expo](#) – our first venture into this space. We were delighted with the attendance, particularly as many had come specially for the dieback workshops. Other local environment-focused groups joined us and plenty of children enjoyed creating nature crafts and exploring the adjacent bush.

Where to next?

Our strength is in our committed membership base (60 plus) and the wide range of volunteers (more than 100) who are passionate about keeping our reserves healthy. Roleybushcare is currently working to find a permanent home to house our equipment, expand the native plant propagation project and develop other support ventures for residents and other environmental groups. With the potentially warmer summers plus the polyphagous shot hole borer moving into the hills, it is vital our trees are kept healthy to ward off these threats. All our field days are advertised on our [website](#).

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Urban Nature update

By Julia Cullity

I shouldn't be surprised by the generosity of volunteers, so let me say I'm delighted to welcome Diana Biondini, Jaimee Nobbs and Pippa Clifton as the new volunteer editorial team for Bushland News. We are hoping that the new team will bring a diversity of voices to the bushland conservation community in their editing and production choices.



Grazyna Paczkowska (left) and Julia Cullity, the Urban Nature team. We don't often get a photo of us together. We are monitoring a reference quadrat in the Perth to Gingin ironstone association community that is almost entirely comprised of annual or annually renewed natives. This spring we set up a very small herbicide trial to see if we can determine techniques to recover this threatened ecological community from invasion of weedy grasses and herbs. Photo – Anne Harris.



Welcome to our new volunteer editors Pippa Clifton (left), Diana Biondini and Jaimee Nobbs. Photos – Casey Clifton, Sara Metalli and Dion Fleming.

Grazyna and I spent the bulk of spring in bushland. Much of the work was assessing the values and threats impacting priority landscape reserves, most of which are also threatened ecological communities. We mapped weeds in clay-based wetlands and banksia woodland. And while we were at Twin Swamps we joined our research scientists and met some [western swamp tortoises](#) trapped and released as part of the monitoring program. We established flora survey plots to confirm new occurrences of *Melaleuca huegelii* – *M. systema* shrublands of limestone ridges (SCP26a) threatened ecological community.

Extensive survey and monitoring of the [newly rediscovered wetland daisy *Myriocephalus nudus*](#) took place to begin the work to move it from the presumed extinct list and become listed as threatened. And a trial was initiated in the Perth to Gingin ironstone association to manage multiple annual and perennial weeds invading a threatened ecological community that is comprised mostly of annuals or annually renewed perennial herbs and sedges.

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Spot the western swamp tortoise above! One of the world's most endangered reptiles, they are either aestivating underground during summer or living in tannin stained and muddy swamps in winter and spring. It was a treat to meet these young creatures in the wild, including an unmarked yearling showing that the tortoises are reproducing. Photos – Julia Cullity



Watkins Road Nature Reserve has excellent condition bushland that is being invaded by weedy watsonia. Since dalapon has been off the market, DBCA has been looking for an alternative selective chemical to control this weed with no off-target damage to surrounding bushland. But the good news is that dalapon might once again be commercially available if the market demand is sufficient. Email urban.nature@dbca.wa.gov.au if you would be interested in purchasing this herbicide.

Photo – Grazyna Paczkowska.

We also started to explore using drones to assist us in managing bushland. We got very close to putting up a drone to help us map weed invasion, subtle differences in soils and the extent of annual native populations of everlastings in the Perth to Gingin ironstone association. After getting permission to fly from the local RAAF base we hit a geofence, an invisible barrier that you need to have preprogrammed your model of drone to overcome. We ran out of time to get back this year as the flowering of our target species was well underway. Still lessons learnt, there's always next year. But finally, we had some success at Port Kennedy. [Murdoch University](#) generously offered to take some drone footage of an occurrence of the Sedgelands in Holocene dune swales threatened ecological community. After struggling through thickets of acacia and picking up many ticks, we found a good vantage point to keep the drone within our sightlines and then commenced the mission. It took a lot longer than I thought because the drone needs to make numerous overlapping photos that can be stitched together into a mosaic that we can view in [GIS software](#). We hope this imagery will take some of the work out of weed mapping, with the possibility that artificial intelligence (AI) might assist in the future.



Dalapon poised to come back on the market

By Julia Cullity

During September and October we spent a few weeks continuing our trial to investigate a [new selective herbicide for the control of weedy watsonia](#) in bushland. And just after we completed our second year of herbicide treatment, we heard some good news.

Dalapon (2,2 DPA) was historically our first choice of selective herbicide for [watsonia control with very little off-target damage to native bushland](#). After being off the market for the past five or six years it could become commercially available again depending on whether there is market demand for the product. Email [Urban Nature](#) and we can put you in touch with the potential suppliers.

But our trial isn't all going to waste. Even if dalapon comes back on sale, we will have quantified the impacts of the trial herbicides at different dose rates on three different plant communities in a very diverse bushland site.

Community weed efforts boosted with WeedScan's AI smarts By Karen Gregory

Weeds are one of the biggest threats to Australia's biodiversity, agriculture and economy, costing about \$5 billion a year in lost productivity, control and environmental damage.

They present a serious risk to our native flora, fauna and water quality and contribute to bushfire risk with additional fuel loads.

Now, there's a new weapon in the war against weeds: [WeedScan](#), available as a web-based and mobile app from the Centre for Invasive Species Solutions.

An Australian first, the app is a free, easy-to-use weed identification, notification and management tool, backed by game-changing AI-smarts trained on 450 priority and other weed species.



CSIRO weed botanists travelled the length and breadth of Australia capturing 120,000 weed images to train the AI model that drives WeedScan. Photo – Andrew Mitchell.

It's designed to help users, including community groups, respond quickly to new and emerging weeds, share records and coordinate management actions. WeedScan is the result of years of research and development, involving botanists, weed specialists, computer scientists and land management groups.

Since its launch, the app has attracted more than 23,000 downloads, with nearly 10,000 weed records submitted from around the country.

While the app is not a substitute for human expertise, it complements existing tools. It helps users learn more about weeds and their impacts and its 'groups' function is a powerful way to connect with others who share local concerns and goals such as Landcare or Bushcare volunteers.

How to create a weed observation

1. Interactive mode. Use the mobile app in the field. Show the Artificial Intelligence (AI) model the plant features in good light and in close proximity via the native camera. The app will calculate possible weed matches in real-time, with degrees of confidence for each.
2. Native camera. Snap a photo of plant you suspect is a weed and upload it to WeedScan for the AI model to assess.
3. Import. Log-in to the app online and upload your weed image for the AI model to assess.

When creating a record, users can choose to keep observations private, suggest a different species than matched by the AI model, make additional comments or delete the observation.

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- Uses AI to **identify** 450 priority and other weeds
- Records **priority** and other weeds
- Links to **management** information at State and national level
- Notifies** local and state weed authorities of High Priority weeds

- Free to use!
- No internet: offline functionality
- Be anonymous or private
- Share records, reports and email within a WeedScan Group
- Search weed records Australia-wide (verified public records to Atlas of Living Australia)
- Web or mobile app



A user's record of Arum lily (*Zantedeschia aethiopica*) taken on the WeedScan app in the Cockburn area. The AI model identified the species with a very high level of confidence.

What happens to WeedScan records?

Once a user has created a weed record, including a confirmed location, the Centre's in-house weed expert verifies the record. Public verified records can be shared among groups and are added to the dataset held by the Atlas of Living Australia to populate weed distribution maps.

Local managers can choose to set alerts for high priority weed records generated in their area, allowing them to take swift and effective action. It also provides users with links to local weed management information and best practice guidelines.

What's next for WeedScan?

The Centre has analysed over 3,000 records to track how WeedScan is performing, and the app's AI model accuracy has been confirmed: suggested weed matches with a confidence level above 90% were correct 85% of the time. In consultation with partners across Australia, another 450 or so species are being added to the WeedScan AI model. These include high priority and priority weeds, false positive triggers (including native species), common weeds, as well as more species of particular relevance to Western Australian users.

WeedScan is an app built by Australians, for Australians. It is tailored to our unique conditions and challenges. Download it to join the effort in winning the war against weeds.

Contact

WeedScan Project Officer

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Additional information

[WeedScan](#): Learn more and create a WeedScan account.

[Fact sheet](#): See the app in action.

[Video guide](#): Top tips and tricks for using the WeedScan app.

[FAQs](#): A handy resource for the most common user questions.

[Resources](#): Find web and mobile app user guides and more.

Download on the [App Store](#) or [Google Play](#)

WeedScan is supported by the [Centre for Invasive Species Solutions](#), Australia's national science agency – [CSIRO](#), the NSW [Department of Primary Industries and Regional Development](#) and the South Australian, Queensland and Victorian Governments. It was funded by the Australian Government's [National Landcare Program](#).



Creating a WeedScan record using the mobile app's interactive mode.
Photo – Centre for Invasive Species Solutions.

Liked to death?

The social media race for nature photos can trash ecosystems – or trigger rapid extinction



*Beautiful Western Australian wildflower blooms draw crowds each flowering season.
Photo – Robert A. Davis.*

Liked to death?

The social media race for nature photos can trash ecosystems – or trigger rapid extinction

By Robert Davis, Bill Bateman and Claire Greenwell (with contributions from Dr. Belinda Davis)

Edited reprint with thanks to [The Conversation](#)

Have you ever liked or shared a social media post about nature? It could have been a photo of a rare orchid or an unusual bird. Or you might share a stunning photo of an “undiscovered” natural place. It feels good to do so. You’re sharing something beautiful, an antidote to negativity. But not even this simple act is problem-free.

Social media has become a huge force. It comes with many positives for nature, such as greater visibility and interest in citizen science and public knowledge about the species we share the planet with. Australia’s largest citizen science project, the [Aussie Bird Count](#), collected reports of 3.6 million birds in backyards in one week, for example, making good use of social media.

There is, unfortunately, a dark side to this effortless sharing of information. It is possible to love species to death, as [new research](#) has found. How? Viral photos of undisturbed natural beauty can lead thousands of people to head there. As more people arrive, they begin destroying what they loved seeing on screen.

And then there’s the [competitiveness](#) among photographers and content-makers hoping to gain influence or visibility by posting natural content. Unethical techniques are common, such as playing the calls of rare bird species to lure them out for a photo.

Social media do not directly cause damage, of course. But the desire for positive feedback, visibility or income can be very strong incentives to act badly.

Can social media really damage species?

The critically endangered blue-crowned laughingthrush now lives in only one province in China. Its wild population is now [around 300](#). So many people went to find and photograph this rare bird that the laughingthrush was [forced to change](#) how it nested to avoid flashlights and the sound of camera shutters. Or consider bird call playback. For scientists, playing a bird’s calls is a vital tool. You can use calls to [entice seabird colonies](#) back to former nesting grounds or to monitor threatened or hard-to-spot species.

It’s very easy for birdwatchers and photographers to misuse this power by using bird ID apps and a speaker to draw out rare species. It might seem harmless but drawing shy woodland birds out into the open risks predation, or can entice a mother off her nest. [Playing calls](#) can also make birds aggressive, change important behaviours, or disrupt their breeding.



Attractive and rare orchids such as the York sun orchid (*Thelymitra yorkensis*) are a magnet for photographers and social media postings which can put them at risk. Photo – Robert A. Davis.

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Baiting, drones, poaching and trampling

The list of bad behaviours goes on and on. Wildlife photographers are known to use baiting to get their photo—putting out food sources (natural or artificial), scent lures and decoys to boost their chances. But when baiting is done routinely, it changes animal behaviour. Baiting by tourist operators offering swimming with sharks has [led to](#) reduced gene flow, changed shark metabolism and increased aggression.

Drone photography, too, comes with [problems](#). Drones terrify many species of wildlife, causing them to break cover, try to escape or to become aggressive. In Western Australia, for instance, an osprey [suffered injuries](#) after a photographer flew their drone into it.

Then there are the world's rare or fragile plants. Social media gives us beautiful images of wildflower meadows and rainforests. But when we collectively go and see these places, we risk trampling them. Unlike animals, plants can't run away. Take orchids, a family of flowering plants with many human admirers. During the 18th century, "orchidelerium" gripped Europe. Rich people paid orchid hunters to roam the globe and collect rare species.

In our time, orchids face a different threat—social media-driven visitors. Orchids are very particular—they rely on specific [fungal partners](#). But this makes them highly vulnerable if their habitat changes. [One study](#) found that of 442 vulnerable orchid species, 40% were at risk from tourism and recreation. Sharing locations is a big part of the problem. Even if you deliberately don't make reference to where you took the photo, the GPS coordinates are often embedded

in a photo's metadata. In 2010, a new species of slipper orchid (*Paphiopedilum canhii*) was discovered in Vietnam. Photos with location information were posted online. Just six months after discovery, more than 99% of all known individuals had been [collected](#). The orchid is now extinct in the wild.

What should be done?

Broadly, we need to talk about the need to make ethical choices in how we present nature on social media. But there is a specific group who can help—the admins of large social media groups devoted to, say, wild orchids, birdwatching or scuba diving. Admins have significant influence over what can be posted in their groups. Better moderation can go a long way.

Site admins can make expectations clear in their codes of conduct. They could, for instance, ban photos of rare orchids until after the flowering season, or put a blanket ban on posts with locations, as well as explain how photos can have embedded location data.

Park and land managers have other tools, such as banning drones from specific areas and making it harder to access environmentally sensitive areas. There's a very good reason, for instance, why the location of wild populations of Wollemi pines is a [secret](#).

Many of us won't have given much thought about how social media can damage the natural world. But it is a real problem—and it won't go away by itself.

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Posting photos of unusual or rare animals can cause unintended harm. For example, photos of this long-nosed horned frog (*Pelobatrachus nasutus*) can encourage more people to search for it, raising the chance of inadvertently spreading the frog-killing chytrid fungus. Photo – Robert A. Davis.



Drones can cause distress to birds, like this drone hovering above an osprey nest in Mindarie, Western Australia. Photo – Eugene Thomas Cunningham.

2024 Landcarers celebrated in the WA Landcarers' Hall of Fame

By Caroline Hughes

In a moving ceremony on Friday 1 November at the Cockburn Wetlands Centre a second group of wonderful landcarers were inducted to the [WA Landcarers' Hall of Fame](#).

The Inaugural WA Landcarers' Hall of Fame was established in 2023 to align with the 40th anniversary of landcare in Western Australia. It recognises those individuals who have contributed a lifetime of dedication to the WA landcare community through action, leadership, research, advocacy, policy, publication, and persistent hard work. "The WA Landcarers' Hall of Fame is intended as a repository of portraits, biographies, and timelines of the rich history of landcare to provide inspiration and education for generations to come. The twelve individuals inducted this year represent the second group to join the Hall of Fame, expanding the recognition of people who have contributed to the enduring landcare movement we know today", said Jacqueline Lahne, WA Landcare Network Executive Officer.



Keith Bradby got a big surprise as a presenter of the WA Landcarers' Hall of Fame when he was inducted into the Hall of Fame himself! Photo – WA Landcare Network.

Dr Louise Duxbury and Keith Bradby OAM presented the Hall of Fame inductees with their certificates at the celebratory sundowner amidst an audience of landcare folk from around the State. WA Landcare Network and its supporters were honoured to recognise and celebrate these wonderful individuals who have contributed a lifetime to landcare in Western Australia.

From restoring landscapes and engaging communities, to protecting biodiversity and championing sustainable practices, the contributions of these individuals have made a remarkable difference. Readers can learn more about the incredible achievements and commitment to our landcare community of these individuals on the [WA Landcarers' Hall of Fame](#).

As a surprise on the night, Keith Bradby OAM, one of the founders of the WA Landcarers' Hall of Fame and a presenter on the night, was also inducted into the Hall of Fame. Keith is a man who has demonstrated outstanding commitment and leadership to the landcare community, having given the last 40-plus years of his life to it. Keith is the founder and current CEO of [Gondwana Link](#), the largest landscape scale restoration project in Australia. The collective efforts of this initiative has seen tens of thousands of hectares purchased and secured by covenants, thousands of hectares restored to high ecological standards, Traditional Owners supported back on their Country, and the 16 million hectare Great Western Woodlands recognised for its ecological values.

2024 Inductees WA Landcarers' Hall of Fame



Our Landcare Champions A lifetime of dedication to landcare

Welcome to the 2024 WA Landcarers' Hall of Fame Les Schultz (top, middle, bottom left to right), Barbara Morrell, Dr Denis Saunders AM, Claudia Hadlow, Harry Whittington OAM (posthumous), Bronte Rundle, Mike Norman, Rob Boase, Mary Gray OAM, Rosanna Hindmarsh, Wayne Clarke and Keith Bradby.

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Introducing Volunteering Australia's new Volunteering Gateway By Jaimee Nobbs

[Volunteering Australia](#) is the national peak body for volunteering. It's responsible for advocating for volunteering and providing leadership at a national level to support a thriving volunteering ecosystem in Australia.

Recently, Volunteering Australia introduced the [Volunteering Gateway](#), a one-stop-shop for volunteer management. This centralised resource was built to support people who manage volunteers by providing them with the necessary tools and resources they need in order to succeed, in one central platform.

Volunteering Australia saw the incredible dedication volunteer managers pour into their roles, often navigating a sea of scattered resources. The Volunteering Gateway emerged from a shared vision to empower volunteer managers, coordinators and leaders with a trusted source of information, and a supportive community to streamline volunteer efforts.

The diverse resources and tools available in the Volunteering Gateway are specifically designed to offer the necessary support for volunteer managers, coordinators and leaders across Australia to recruit, train, manage and retain volunteers through fostering a vibrant volunteering community and improving the volunteering experience.

In the Volunteering Gateway, you can find:

- a comprehensive selection of resources, including templates, guides and research information, at all levels of volunteering experience and for each state and territory, in one easy-to-navigate location
- a selection of applications and pieces of software to help volunteer management—find, manage, onboard, communicate and promote volunteering opportunities
- a wide range of training activities and courses to equip volunteer managers with the skills and confidence to support their teams as best as they can.

To find out more about this wonderful new resource and to create your own free account, head to the [Volunteering Gateway](#).

Contact

Volunteering Gateway

website volunteeringgateway.org.au

The Volunteering Gateway can help you:

- Discover templates and research
- Access new training opportunities
- Tap into new technology solutions

Helping you help others.

Say hello, to a new tool built for people who manage volunteers

Friends of Warwick Bushland launch new Jarrah Trail self-guided walk *By Michelle Wild*

The Friends of Warwick Bushland, celebrating their 25-year anniversary this year, proudly launched the new Jarrah Trail self-guided walk with Mayor of the City of Joondalup, the Honourable Albert Jacob, visitors and Friends on Sunday 25 August 2024.

This spectacular piece of urban bushland is one of the City of Joondalup's five major conservation areas due to its high biodiversity values, ecological connectivity and regional, national and international significance. It covers 60ha and is a great place to reconnect with nature with three walking trails to explore (Jarrah, Banksia and Tuart trails), and lots of quiet places to sit and relax.



At the trail head of the [Jarrah Trail self-guided walk](#). The path is sealed, allowing for access and mobility for all. There are 20 points of interest which use QR codes to link to more information and four interpretive signs. Spot the sign to the left of this photo. Photo – Friends of Warwick Bushland.

[The Jarrah Trail self-guided walk](#) combines education with creativity, culture, history and natural wonders. It is a learning resource with 20 points of interest (POI) and four interpretive signs. Each POI has a QR code, a terracotta tile picture and a number on a limestone block, next to the walk trail. Scanning each QR code with the camera of a mobile phone or tablet leads to two focus topics on the relevant pages of our [Friends of Warwick Bushland website](#). The focus topics cover the diversity and ecology of plants, animals and fungi, their indigenous significance, and ecological interactions such as pollination and fire impacts. There are many stunning photos and videos along with seasonal wildflower guides that you can access too.

On the new Jarrah Trail, visitors can progress as far as they wish along the trail and if they don't complete it, can come back and resume at a later date. The path is sealed and suitable for strollers, rollators and wheelchairs. Wildflowers and fungi vary seasonally, so visit often or time your visits to match your interests.

Walk trail information can be accessed any time on the [Friends of Warwick Bushland website](#).

Thank you to the [City of Joondalup](#) for the special purpose grant that funded development of the Jarrah Trail self-guided walk, and to Mark Brundrett and Karen Clarke for the enormous amount of work put into the website. Thanks also go to the Friends and others that helped bring the walk trail to fruition.

Please send us your regional report (400 words) and one or two photos by Tuesday 11 February 2025. Text may be edited in response to volume of submitted reports.



City of Joondalup Mayor Albert Jacob (left) launching the Friends of Warwick Bushland Jarrah Trail self-guided walk with Friends Karen Clarke, Mark Brundrett and Stephanie Murphy. Photo – Friends of Warwick Bushland.

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Coast visits the bush

By Mike Norman

The volunteers of Friends of Sorrento Beach & Marmion Foreshore meet along the coast in Marmion or Sorrento every Thursday morning, almost every week of the year, to plant, weed, water and collect litter on 2.5km of coastal reserve. But one volunteer of our Friends group, who is also a member of Friends of Warwick Bushland, made the comment that they could do with a lot more volunteers to help rehabilitate degraded areas within the Warwick Bushland, one of the City of Joondalup's major conservation reserves.

Friends of Sorrento Beach & Marmion Foreshore volunteers decided to take a week's break from the coast to help our friends at Warwick Bushland remove the bulbous weeds cape tulip and gladiolus at Warwick Bushland using our own [half-pipe levering tools](#) that we routinely use on the coast to lever out dune onion weed by the thousands. This tool, being very narrow, can quickly lever out many weed species with very little soil disturbance. It is important to do this task at this time of year as both these weed species are flowering, making them easy to spot, and before they have shed their seed. These weed species, originating from South Africa, have the ability to invade bushland in good condition and can be found right through Kings Park and in most natural areas of the south-west of Western Australia. The volunteers of Friends of Sorrento Beach & Marmion Foreshore fortunately eliminated those two weed species from Marmion a few years ago, but we need to keep out an eagle eye to ensure there none left there to try and make a comeback!



Friends of Sorrento Beach & Marmion Foreshore volunteers decided to take a week's break from the coast to help our friends at Warwick Bushland remove the bulbous weeds cape tulip and gladiolus at Warwick Bushland using our own [half-pipe levering tools](#) (right foreground). Photo – Christiane Ludwig.

Our group was guided by Friends of Warwick Bushland members, Christiane Ludwig and Stephanie Murphy, to spray our tools and boots with methylated spirits and then proceed with the task. There are many native species present in Warwick Bushland that do not occur on the coast, such as the blue sun orchid, so the day was filled with a good sharing of knowledge. Fortunately, the bad weather of the day before had abated, and the environmental weeding session finished with coffee and homemade cake baked by Christiane. It was a very mutually beneficial visit.

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Building a transverse dune mound at Sorrento Beach *By Mike Norman*

In September 2023, the Friends of Sorrento Beach & Marmion Foreshore group undertook an initiative to plant a transverse dune mound—a planting in the middle of the beach, with the aim to revegetate an area of the beach. This will slow down the movement of wind-blown sand further north on the beach where it is accumulating against the Hillarys Boat Harbour southern breakwater, and provide a spot for beachgoers to sit on the beach in a sheltered spot when the sea breeze is blowing.

To build the transverse dune mound required a lot of time and patience from the Friends group. With no tree guards used at Sorrento Beach due to the high risk of vandalism, the Friends group began the initiative after the winter storms had subsided to avoid seedlings being sand blasted.

The Friends group commenced by ensuring the area was weed-free before the City of Joondalup's Natural Environment team laid coir matting, a type of open mesh made of jute, and encircled it with a star picket fence.

Spinifex longifolius, *Spinifex hirsutus* and *Atriplex isatidea* were planted by the Friends group with a fertiliser tablet and watered in, and sea wrack was collected from along the beach and stuffed under the matting around each of the seedlings for moisture retention. An adjacent area on the eastern end of the groyne was also planted and fenced at the same time, to narrow the gap between the two.

From December 2023, all the seedlings were watered with 2 litres of water every three weeks, with urea well mixed in for every second watering, at a rate of 2.5 grams per litre. We thank [Cottesloe Coastcare](#) for their suggestion of urea, as beach sand is especially deficient in nitrogen.

The watering finished in May 2024 and after one year, the group has seen tremendous results. The seedlings have grown to the extent that the mound is almost completely covered in vegetation, and we expect to see the mound entirely filled within the next 12 months.



This is a transverse dune mound – a planting in the middle of the beach. The aim is to slow down the movement of wind-blown sand travelling north piling up against the groin and to provide a sheltered spot for beachgoers in the sea breeze. It is made by planting out into coir matting and is protected by a fence. Photo – Mike Norman.



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One year from planting and the mound is almost completely covered. These plants were regularly watered and fertilised over summer. Both spinifex species have done really well and are flowering. Photo – Mike Norman.

The York seed orchard *By Kathy Boladeras*

After a brief break following the hugely successful Wildflower Society of Western Australia (WSWA) annual conference weekend in June, York Branch members of the WSWA applied themselves to cleaning up the seed orchard in their stewardship. The two blocks of land making up the seed orchard are separated by the Oliver Battista York Motorcross Track and Avon Waste transfer station and run alongside the west bank of the Avon River.

In previous years, York Branch inaugural members, Bruce and Pat McGregor, have worked quietly but industriously in their own time, at their expense, to maintain the area. A combination of health issues and machinery breakdown this year led to the weeds becoming an almost overwhelming problem to solve, and the branch had to adopt a range of measures to deal with it.



It turns out that keeping on top of weeds in the seed orchard is more than a two person job! Photo – Wildflower Society of WA York Branch.

Thanks to branch members, local contractors and a work party from the Department of Justice, who put in a concerted effort over several weeks to slash, spray, mow, whipper snip, prune and burn, we achieved a great result.

The community seed orchard group was established in 2002 by the local Land Conservation District Committee, with the following objectives:

- local provenance seed production for environmental projects
- fire management
- feral animal control
- increased biodiversity and habitat
- future sustainability
- buffer to prevent nutrification of the river
- resource for community recreation and tourism
- education for school and environmental groups.



New planting at the seed orchard this year, with the grey branches of established Eucalyptus macrocarpa in the background. Photo – Wildflower Society of WA York Branch.



Eucalyptus macrocarpa getting ready to set seed in the Wildflower Society of WA York Branch's seed orchard. Photo – Wildflower Society of WA York Branch.

The seed orchard's potential is, as yet, largely untapped. It contains over 60 species including *Acacia*, *Alyogyne*, *Banksia*, *Callistemon*, *Calothamnus*, *Eucalyptus*, *Hakea*, *Leptospermum*, *Melaleuca* and *Viminaria*. Carnaby's cockatoos have visited for the first time this spring, feasting on the fruit of *Hakea petiolaris*, and our branch harvests seed for our annual propagation programme. However, we would like to link into other groups desiring local provenance seed, to make some return on the time and effort we invest. We would also like to hear how other groups operating a similar project, have achieved some sustainability.

In order to care for a resource of this size, many volunteer hours are required. The branch welcomes any assistance from the community, be it intellectual or physical, manual or mechanical. A brochure has been produced by the branch to raise awareness of the orchard, including a map and a list of species to be found in each block. It is available at the York Visitor Centre or contact Kathy Boladeras for a digital version.

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Planting for our future *By John Crook*

Following one of the hottest and driest summers on record, the [River Conservation Society](#) carried out several plantings on bushland reserves and along the Avon River in York. We purchase a number of seedlings from the Wildflower Society each year that are grown from seed collected from the Wildflower Society of WA York Branch's seed orchard. This will increase as they expand their seed collection operation.

Six hundred native seedlings were planted at Tanjinn Well Reserve, Mount Hardey, followed by two enjoyable planting sessions with the children and staff from the York Child Care Centre. Some of these children were returning for the second or third year and enjoyed checking out the growth of their past efforts.

The River Conservation Society also collaborated with members of the local Ballardong Noongar community, Shire of York and other community members, to celebrate NAIDOC week, by holding a community planting day and barbecue on a bushland reserve in York. An enthusiastic group of 35 volunteers planted 1400 native seedlings.

The aim of this revegetation project is to provide a substantial understory that creates food and protection for the wide range of wildlife including insects, frogs and reptiles that use this small, but important reserve situated within the York townsite. The lightly wooded site contains an old clay pit, the remnants of a by-gone brick industry. This pit forms part of York's drainage system & fills with water each

year to provide an ideal breeding habitat for water birds and frogs. Spoonbills, ibis, white-faced herons, kingfishers, ducks, brown goshawks, willie wagtails, peewees, red wattlebirds, ravens, ringneck parrots and many other bird species nest on this reserve annually. Many of these birds roost here nightly. Carnaby's cockatoos visit and roost here when suitable food is available locally and a boobook owl has recently taken up residence and calls nightly from the surrounding area. Dedicated walkways have been left to allow visitors to meander through the reserve and appreciate the wildlife that it attracts.

A variety of fauna nesting boxes have also been installed. They range from those large enough to accommodate ducks, down to ones to house the tiny microbats that can be seen hunting here at dusk.

As land clearing continues at an unsustainable rate, the importance of these pocket-sized wildlife havens cannot be understated. It is the aim of the River Conservation Society to continue to identify and rehabilitate similar sites throughout the Shire of York.

These projects have been a great example of a community working together to provide a better natural environment for future generations.

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Community planting days look to provide a substantial understory that creates food and protection for the range of animals that use these pocket-sized wildlife havens in York. Photo – Maryanne Crook.



A variety of nest boxes have been installed in York to complement the revegetation plantings. This box is large enough to host boobook owls, ringneck parrots, galahs and brushtail possums. Photo – Maryanne Crook.

Thinking like a bird: initial learnings on bird nesting boxes By Don Crawford

In March 2023, Friends of Mosman Park Bushland (FoMPB) commenced the 'Housing our Birds' project to provide safe nesting places for native birdlife in Mosman Park. Many local wildlife species rely on tree hollows for nesting but the old trees with hollows are becoming increasingly rare due to the steady deforestation of urban areas from property development, clearing for grassed parkland, homeowners pruning or removing trees and from disease.

During March to July 2023, FoMPB built and installed 40 nesting boxes of different sizes catering for different bird species, from Carnaby's cockatoos, owls, Australian ringnecks to pardalotes. Simon Cherriman's book *Hollowed Out* was our reference and inspiration. The [Mosman Park Men's Shed](#) supported us with a grant and technical assistance, while the [Town of Mosman Park](#) sanctioned the boxes being erected across the town. Nine boxes were installed in trees on private property, 10 in school grounds and 21 on public land. The boxes were installed between July and December 2023.

No nesting activity was observed in any of the boxes in 2023, although we did have one box occupied by bees in the nesting cavity and ants in the nesting mulch and another box occupied by an ant nest. We were clearly too late for our target avians to use the boxes that year, however over the 2024 breeding season, there was a lot more interest in the boxes, particularly from pink and grey galahs and ringneck parrots.

Many boxes were inspected by birds, and we have seen pink and greys and ringnecks regularly enter and leave some boxes.

Some observations to date:

- The box needs to be positioned with leaves and branches around/outside the box entry within 2–4 metres for birds to sit on while not in the nest, so they can observe the box and surrounds.
- It's important to mount the box at sufficient height above the ground and in an area where activity on the ground will not disturb them. The boxes occupied by pink and greys is about five metres high and they seem less concerned about activity below. The occupied ringnecks' box is about seven metres high and they are very shy.
- We need to engage the community better in observing box activity, perhaps using an 'adopt a box' model. We expected some reporting from the schools on box activity, however we received none. Publicly located boxes have attracted the attention of locals but reporting is ad hoc.
- We had no observations of pardalotes, owls or Carnaby's using the boxes, nor of invasive species such as rainbow lorikeets—only galahs and ringneck parrots.

FoMPB sees this project as a long-term undertaking and will continue to observe and learn so we can refine the nesting box placement. Patience is required to enjoy and learn from this journey.



This box was installed in a eucalypt in a grove of trees near the Swan River behind Perrott Reserve. It's about 5m up the tree. My grandson, in year 8, has been monitoring it. It took a year to attract tenants, but this year the galah parents occupied it in July and vacated with fledged offspring in early November. Photo – Lachie Johnston.

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Everyone would be familiar with the Signal Station mast on the top of [Cantonment Hill](#), Fremantle as you enter Fremantle from the Old Traffic Bridge, but not everyone knows about the Bush Forever site that surrounds it. Many people may have enjoyed Tuckfield Oval across the road from the [Containerbow](#), but few venture up the rough track that leads to the surprising viewing platform, or further on to the Signal Station itself. Beyond that are groves of Rottneest Island tea tree and Rottneest Island pine. Below the Signal Station, the hill drops sharply to Queen Victoria Street, where only the hardiest of our endemic species survive on the steep limestone cliff.

The City of Fremantle commissioned a masterplan for the hill in 2010. It which aims to create different areas of use and interest over this unique bushland site. In 2015, the Friends of Cantonment Hill group was successful in getting a LotteryWest grant to complete [phase one of the plan](#) – the playground on Tuckfield Oval and a renewal of the Signal Station which is now occupied by Marine Sea Rescue.

A recent reinvigoration of the [Friends of Cantonment Hill](#) has the primary goal of taking the masterplan to completion. Our work has three areas of focus: community involvement, education in schools, and lobbying council and government for support.

We aim to host a weeding, planting or rubbish collection community activity on the hill three times a year. So far, we have learned that food is a great attraction, and we have had funding for morning tea from the council, or we just make it ourselves!

The schools program gives us great satisfaction. Four local schools each visit the hill once a term, to help

Friends of Cantonment Hill

By Lynette Isted



From the Old Traffic Bridge in Fremantle, you can see the Signal Station mast atop Cantonment Hill. The station is surrounded by only the hardiest of endemic species of bush that can survive on the steep limestone cliff. Photo – P. Amaral.

with planting, weeding and path-making. This is where we see a huge difference on the hill, and the students love being outside and contributing.

We spend a lot of time lobbying federal, state and local government representatives for funding to complete the masterplan, and we have also reached out to Noongar Elders seeking their involvement and guidance to care for the site culturally and appropriately. With support from [Perth NRM](#) grants, we have been able to bring Elders and students together on the hill. Other volunteer organisations that care for urban bushland have generously taught us strategies and processes for dealing with government systems.

Through the highs and lows, time spent on Cantonment Hill never fails to inspire us all.



Friends of Cantonment Hill volunteers gather to celebrate after receiving the Community Citizenship Award in January 2023. Photo – Friends of Cantonment Hill.

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Welcoming spaces a drawcard for nature lovers in Cockburn *By Michele Nugent*

The City of Cockburn has about 100 conservation reserves. Since July 2023, the city's Sustainability and Climate Change team has hosted five unique Nature Discovery Days, encouraging more than 700 people to interact with Cockburn's abundant natural hidden gems.

City of Cockburn Acting Sustainability and Climate Change Coordinator, Rafeena Boyle, said "we strive to create a fun, accessible pop-up atmosphere with welcoming spaces for storytime and other nature-related activities, along with practical facilities like temporary toilets, shade marquees and even a food and coffee van."

Held during the school holidays, the events are tailored to the unique features of each site and pitched at various age brackets including activities for adults, under-fives, school age children, and the whole family so they can get to know their local patch.

Hosting their first Nature Discovery Day at Yangebup Lake in the 2023 winter school holidays, Ms Boyle said, "many families took advantage of enjoying a day in nature where kids could put on some gumboots and a jacket to see how alive the bush is in Makuru. More are planned for 2025."

The free or low-cost experiences have also been held at Boodjar Mooliny Reserve in Lake Coogee, Bloodwood Park in South Lake, Banksia Eucalypt Woodland in Aubin Grove, and Frankland Park in Hammond Park.

City of Cockburn Mayor, Logan Howlett, said the events increased public awareness and appreciation of local ecosystems by providing hands-on activities to foster a deeper understanding of the environment.



The City of Cockburn invites experts, including local First Nations custodians, to share traditional stories and botanical knowledge for storytimes, guided nature walks and workshops. Cyril Yarran in this image is from Milliiaan Aboriginal Services. Photo – City of Cockburn.

"In this way we are inspiring new and future environmental stewards," Mayor Howlett said.

"We are also supporting the city's commitment to environmental education by providing opportunities to learn about climate risks and resilience, and sustainable management of local natural areas and resources."

The Nature Discovery Days are a collaboration opportunity for the city to partner with local environmental and community groups.



City of Cockburn Bushland Maintenance Officer Dan Millea providing information about animals endemic to the area such as turtles and quenda, and the huge variety of plants and trees in these diverse natural areas. At Nature Discovery days staff also talk about how each reserve is affected by the changing seasons and weather patterns. Photo – City of Cockburn.

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City of Joondalup wins twice at 2024 AIPH World Green City Awards *By Danielle Bowler*

The International Association of Horticultural Producers (AIPH) World Green City Awards showcase bold and inspiring urban greening initiatives by cities from around the world, all of whom are leading the way in shaping a greener urban future, with the next edition of the awards to be held in 2026.

The City of Joondalup has claimed two major honours at the AIPH World Green City Awards, taking home the:

- Living Green for Water category, ahead of Riyadh (capital of Saudi Arabia) and another Saudi city, Unaizah. This award recognises Joondalup's commitment to building a more waterwise, liveable and resilient city in the context of a changing climate.
- Inaugural AIPH Youth Award winner for its efforts to support, engage, collaborate with, and provide green urban environments creating opportunities for youth in social, recreational and sporting activities.

Entries were open to government authorities worldwide, with category finalists representing China, the United Kingdom, Germany, Portugal, Romania, the United States, Mexico, Brazil, South Africa and Kenya.

Managing and caring for nearly 400 parks, natural areas and public open spaces central to the wellbeing of its residents and the wider community, the City of Joondalup focuses on improving water efficiency,

ecological health and visual amenity, and creating places for the community to enjoy.

Joondalup Mayor, Albert Jacob, said "for a decade now, Joondalup's Climate Change Strategy has guided our city's approach to mitigating the effects of climate change and increasing resilience. The city makes it a priority to increase our tree canopy cover, use water resources effectively and provide opportunities for our community to be more waterwise and create cooler, more inviting green urban spaces."

"Other positive environmental effects include reducing the ambient air temperature, cleaner air through absorption of polluting gases, reduced cooling energy consumption costs, and water savings through reduced evaporation rates. We have increased habitat for wildlife, more aesthetically pleasing streetscapes, improved community amenities including safer walking environments and shading, and improved community health and wellbeing," said Mayor Jacob.

"We are delighted that our hard work in addressing the effects of climate change have been recognised at the AIPH World Green City Awards."



City of Joondalup's Environmental Development Coordinator Danielle Bowler (left), Mayor Albert Jacob, Manager Parks and Natural Environment Michael Hamling and Manager Strategic and Organisational Development Rebecca Maccario with their AIPH World Green City Awards. Photo – City of Joondalup.

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Perth's dragonflies: why bushland matters By Dr Belinda Robson

Dragonflies are among the most eye-catching insects in our urban bushland, glistening as they dart around our lakes and wetland. South-western Australia is home to more than 40 species, many of which are unique to the region. At least 15 dragonfly species are commonly seen in Perth's urban wetlands, but their survival here may be at risk as our climate grows hotter and drier. New research is revealing just how much these vibrant insects rely on both aquatic and bushland habitats—and what they'll need to thrive in the future.



Blue skimmer dragonflies (Orthetrum caledonicum) attached to each other and perched on vegetation during mating. The upper dragonfly is male, the lower female. Photo – Dr Jane Chambers.

Dragonfly life cycle

Dragonflies rely on water for their aquatic juvenile life stage (nymph). Nymphs are [predatory](#), feeding on freshwater invertebrates, although larger nymphs may also consume fish or tadpoles. After a series of moults, the nymph has to exit the water and shed its skin (a process termed [eclosion](#)) to emerge in adult dragonfly form. The newly emerged adult, called a teneral, will leave the wetland to hunt for food (preying upon other flying insects) and build up condition for breeding. Once fully matured, the search begins for a mate and a suitable waterbody for breeding. During mating, males and females are often seen flying together, attached to each other, and may even remain attached during egg-laying, with the male dipping the female into the water to [deposit her eggs](#).

Why do dragonflies need urban bushland?

Consequently, dragonflies require both freshwater habitat (e.g. urban wetlands) and terrestrial bushland to complete their life cycle. Until recently however, relationships between Australian dragonflies and terrestrial and aquatic habitats have not been well understood. Our [recent research](#) in urban Perth has shown that both aquatic and terrestrial vegetation play important roles in dragonfly survival at different life stages. While nymphs are associated with the presence of [submerged and emergent vegetation](#) in urban wetlands, adults are also influenced by the amount and proximity of surrounding native terrestrial vegetation or other wetlands.

Our results showed seasonal differences in relationships between adult dragonflies and their habitat that suggest why urban bushland is important. In spring, the most important factors for dragonflies were water temperature (whether it was above or below 20°C) and the cover of lake edges by emergent aquatic plants. In this season mating is occurring and emergent plants provide perching locations for adults to rest, as well as sites for both egg-laying and eclosion.



Emergent plants like this stand of jointed rushes (Machaerina articulata) at Chelodina wetland (within the Beeliar wetlands) is a prime example of vegetation used by urban dragonfly species. Photo – Belinda Robson.

Continued next page ...



Fringing swamp paperbark trees (Melaleuca raphiophylla) and revegetated understorey at Manning Lake (within the Beelie wetlands) provide shade and cooling to support dragonflies, as well as refuge from predators. Photo – Belinda Robson

Emergent vegetation also provides protection from predators like birds. In summer however, the most important factors changed to the amount of surrounding native terrestrial vegetation and the distance to the nearest patch of native vegetation or wetland. This reflects the need for adults to move around urban landscapes to seek prey, mates and breeding habitat. In our climate of hot summers and autumns, access to markedly cooler air [beneath fringing trees](#) may help to prevent overheating or desiccation of adults. So, as well as providing areas for hunting and protection from predators, urban bushland likely plays an important role by providing shade to adults in the heat of summer and autumn.

Impacts for dragonflies in a drying climate

Perth's urban natural wetlands are becoming dry more frequently and for longer periods, raising concerns for the survival of freshwater species. Dragonflies with short nymph stages (like the [tau emerald](#), *Hemicordulia tau*) can adapt to these changes by undergoing eclosion before or during wetland drying, therefore spending the dry period as adults or as eggs in the sediment. However, species with longer nymph stages may become restricted to wetlands with more permanent water as they cannot accelerate their development to reach adulthood in short periods of inundation. Our research indicates that at least some of those species will be driven to rely on created or highly modified urban wetlands, rather than drying natural wetlands, as they contain water year-round. As native species increasingly rely on modified urban wetlands, revegetating these areas with aquatic, fringing, and terrestrial plants to support each life stage may be valuable for long term dragonfly conservation in Perth's urban areas.



Artificial lakes like this one at Piney Lakes Reserve (Melville) will likely play a role in the survival of urban dragonflies in the long-term. However, with few emergent plants and mostly exotic fringing vegetation, careful planning and revegetation could enhance their value as dragonfly habitats. Photo – Belinda Robson

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Track Care's achievements *By Graham Weber*

Back in the mid 90's, 37 years after the last herd of cattle was moved south along the [Canning Stock Route](#), a group of like-minded individuals came together to preserve Western Australia's pioneering history. Originally calling themselves the Canning Stock Route Working Group, their goal was to ensure that monumental effort to establish the Canning Stock Route was not lost to history and that modern day explorers could travel its length. Less than a year after forming, the group renamed itself [Track Care WA](#).

In the years since 1996, Track Care has restored 15 wells and constructed 14 toilets along the Canning Stock Route's length, ensuring travellers can access water and not leave their mark on the landscape.

Although Track Care was born in the remote desert of Western Australia, our story is weaved throughout the length and breadth of our state—mingling within endangered wetlands, historic homesteads and landmarks, track maintenance, rubbish collections and beaches—while still maintaining the Canning Stock Route. Our members, all volunteers from all walks of life and a melting pot of abilities and skills, work together with a shared purpose and vision, *access for the future*, so that future generations can enjoy what we have and that the story of WA is not lost. At 170 members, and growing, we collaborate with like-minded 4WD clubs, conservation groups, local, state

and federal government entities, land holders and other stakeholders who are willing to come together for the common good.

Warreidar Homestead

For the last 15 years, Track Care have been instrumental in the restoration and continued maintenance of the historic homestead on [Warreidar Station](#) (now part of the [Karara Rangelands](#)) a partnership between DBCA and the Traditional Owners. The homestead provides visitors a place to shelter from the elements as well as a glimpse into the region's pastoral past, and the conditions once endured by pioneering families. More recently, Track Care undertook major renovations of the Shearer's Quarters, bringing the building back to a habitable state for which visiting campers can make use of if required.

Jack's Shack

The historically important [Jack's Shack](#), located in the Donnelly River region of Western Australia, was at risk of structural failure due to its proximity to the road. Track Care collaborated with the local [Friends of Donnelly Village](#) and arranged to dismantle, relocate and rebuild the shack. The project was a complete success, with our team being able to conclude all work in less than half the time allowed.



Jack's shack prior to maintenance done by Track Care volunteers and Friends of Donnelly Village (above left), during relocation and the rebuild (above right), and after completion (below). Photos – Track Care WA.

Continued next page ...

Wandoo National Park

Track Care has been involved in helping to preserve the natural values at [Wandoo National Park](#), an hour east of the Perth metro area, for almost a decade. The park is named after its wandoo woodlands but it also contains a diversity of habitats including jarrah and marri woodlands, heathlands, granite outcrops and seasonal wetlands. One area of concern was serious damage and the proliferation of tracks by off-road vehicles in the seasonal clay-based wetlands.



The seasonal clay-based wetlands at Wandoo National Park transform into a riot of ephemeral herbs as the waters dry out in spring. The moist soils are also easily damaged by off-road vehicles. Photo – DBCA.



Drone footage taken by Track Care show the proliferation of vehicle tracks in the soft clay soils of the wetlands. Photo – John Collins.

Track Care joined forces with DBCA and organisations in the motor industry to help fund and install signage in the wetlands at Wandoo National Park asking people to keep to existing tracks. Photo – DBCA.

These wetlands support a wide range of fauna and flora including plants once thought to be extinct and plants and aquatic invertebrates known only from this place in the world. When vehicles stray from existing tracks their wheel ruts can persist for years, disrupting the natural flow of water and the species that depend on it. Track Care joined forces with DBCA and organisations in the motor industry to help fund and install educational signage communicating the conservation values of the wetlands and asking people to keep to existing tracks.

And for the last 12 months, Track Care have been conducting regular survey and maintenance of tracks within the park. The work involved included the use of petrol and electric chainsaws to clear fallen trees off tracks, rubbish collection and the identification of car wrecks and hazardous waste for future removal. With almost 2000 working hours and more than 349 trees removed from tracks, the project has proven to be an immense success, ensuring visitors to the Wandoo National Park can travel along the maintained tracks safely.

Karalee Rocks

Working with the [National Trust of WA](#), Track Care undertook maintenance work at the historically significant [Karalee Rocks](#), 50km east of Southern Cross. Around the late 1860's a well and dam were constructed at the base of the rocks which later became a water reserve with an impressive steel aqueduct and an earth tank capable of holding nearly 50 million litres of water, well utilised by men and horses during the gold rush. Our work involved maintaining the man-made walls surrounding each of the rocks to the high-water mark of the dam, replacing fire rings, installing new timber bollards and high visibility wire as well as clearing debris from the water channels.

These are just four examples of the many projects Track Care undertake. If you have a love for exploring, preserving sites of historic significance and giving back to the community then consider becoming a member of [Track Care](#).

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The **Bob Hawke Landcare Award** celebrates leaders who champion sustainable land management and inspire community action for environmental conservation. Nominations are currently open for individuals, groups, or organisations that have demonstrated commitment to natural resource management and sustainable land management practices, with a prize of \$30,000. [Nominations close 31 December](#).



Wettenhall Environment Trust Small Environmental Grants scheme funds grassroots organisations, individuals, academics and community groups on flora and fauna conservation projects. [Applications open 9 December](#) for funding January 2025.

Australian Wildlife Society Conservation Group Grants fund up to three groups yearly, specialising in wildlife conservation and the preservation of wildlife habitats. [Applications accepted year-round](#).

The **Feilman Foundation** funds projects supporting conservation of the natural environment as well as education and awareness raising for conservation matters. [Applications accepted year-round](#).

The **Riverbank Program** provides funding for local government foreshore restoration projects along the Swan and Canning Rivers. Next [application round](#) anticipated to open in February 2025.

Perpetual's **IMPACT** philanthropy application program (IPAP) provides funding to help well-run, effective not-for-profit organisations access funding and better serve their communities. [Applications close 6 December](#).

WIRES Wildlife Training Grants provide assistance for eligible wildlife rescue and rehabilitation organisations to cover the cost of volunteer training courses. [Applications accepted year-round](#).



The **Australian Bird Study Association** Fund for Avian Research provides financial assistance to amateur and professional ornithological researchers that support, encourage and promote the study of Australian birds and to contribute to their conservation. [Applications close 31 December](#).

PHCC: Fencing and revegetation of rural drains and waterways is for property owners in the Peel-Harvey Catchment to aid with fencing (up to \$4,500/km) and revegetation (up to \$15,000/ha) to improve water quality of the Peel-Harvey Estuary. [Expression of interest open now](#).

The **Indigenous Land and Sea Corporation** funds land acquisition or management projects that deliver benefits to Indigenous Australians through the Our Country Our Future Program. This includes on-ground activities to maintain or improve the condition of Country (land, water, biodiversity, and cultural heritage). [Applications accepted year-round](#).

Purves Environmental Fund offers up to \$50,000 for projects addressing the focus areas of habitat degradation, unsustainable management of natural resources and pollution. [Applications accepted year-round](#).

2024–25 Volunteer Grants Opportunity \$1000–\$5000 to purchase communication or insurance items for volunteers or to fund volunteer services that support children. Contact your local Federal MP for details on submitting an [expression of interest before 26 February 2025](#).

Local government and place-based community grants. These local governments and groups provide small grants to their communities which may fund environmental management and restoration projects. Eligibility varies. [Albany Community Foundation open year-round](#), [Armadale Habitat Links open year-round](#) for rural residents, [Cockburn Sustainability open year-round](#), [Derby/West Kimberley open year-round](#), [Geraldton 6 January–14 February 2025](#), [Harvey Water open year-round](#), [Kwinana Placemaking Grant open year-round](#), [Melville close 31 March 2025](#), [Northam open year-round](#), [Rockingham open year-round](#), [Serpentine Jarrahdale open February 2025](#), [South Perth open year-round](#), [Swan close January 2025](#), [Vincents open year-round](#), [Wanneroo open year-round](#).

Cuckoo bees

By Andrew Shaw



Photo – Andrew Shaw.

Not your average striped bee, the cuckoo bee is a sight to behold. While small, they can be spotted all across mainland Australia and are critical to sustain local biodiversity as they pollinate a large variety of native plants.

The cuckoo bee here was spotted on a *Melaleuca huegelli* (chenille honeymyrtle) which grows on the limestone ridges, south of the Volante Path at Iluka foreshore. The Iluka foreshore is home to a wide range of insect pollinators.

Thyreus waroonensis is part of the Apidae family and is most easily recognisable by its pattern of white dots along its black body.

Cuckoo bees are kleptoparasites, meaning they'll steal pollen and other resources, and lay their eggs in the nest of host bees. Not one to make friends, once in the host's nest, female cuckoo bees lay their egg in the provisioned cells and cover it over using debris from the burrow walls. This dooms the host bee's eggs chance of survival in the same cell, and once hatched, cuckoo bees then rely on the host bee to take care of their young.

Keep an eye out for these fascinating native bees in both woodlands and urban areas near you.