

bushlandnews



Issue 111 **Spring** 2019 *Time of Djilba and Kambarang in the Noongar calendar.*

Tuart woodlands threatened ecological community listing



Department of Biodiversity,
Conservation and Attractions



Bushland News is a quarterly newsletter of Urban Nature, a Department of Biodiversity, Conservation and Attractions Parks and Wildlife Service program to support community involvement in bushland conservation.

Photo – Kimberlee Kucera.

Contents

<i>Tuart woodlands threatened ecological community listing</i>	3	<i>Regional Reports</i>	
<i>Urban Nature update</i>	5	<i>Ambergate Reserve management by Busselton Naturalists</i>	14
<i>Weedwatch – Keep an eye out for pokeweed</i>	6	<i>River Conservation Society – Avon River Revegetation Project</i>	15
<i>Econotes – Turtle Trackers: saving our snake-necked turtles</i>	8	<i>Rehabilitating Roe 8 update</i>	16
<i>Volunteering with wildlife</i>	10	<i>Alcoa digs in with Friends of The Spectacles</i>	16
<i>Ringtail Possum Tally results for 2019</i>	11	<i>Feature – Partnership, patience, and hard work the key to a healthy rail corridor</i>	17
<i>Feral cats a declared pest in WA</i>	11	<i>Group Profile – The Ludlow Tuart Forest Restoration Group Inc.</i>	19
<i>Perth Water Buneenboro Precinct Plan open for comment</i>	12	<i>What's on</i>	21
<i>Bird observers wanted</i>	13	<i>Funding opportunities</i>	24
		<i>Resources</i>	26
		<i>Look out for...Triggerplants</i>	27

Are your details correct?

To continue your subscription when you change your email address, update your details on our [webpage](#). A subscription to *Bushland News* is free.

Contacts

Urban Nature office

Julia Cullity 9442 0320
Grazyna Paczkowska 9442 0322
Email urban.nature@dbca.wa.gov.au

Parks and Wildlife Service

Parks and Wildlife Service, Swan Region Office
Cnr Australia II Drive and Hackett Drive, Crawley WA 6009
Locked Bag 104, Bentley Delivery Centre, WA 6983

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

Next issue

Summer Bushland News

Summer *Bushland News* contributions should be sent to [Urban Nature](#) by **3 December 2019**. *Bushland News* seeks original contributions. If your submission has been or may be published elsewhere please let us know. Compiled and edited by Julia Cullity.

Tuart woodlands

by Kimberlee Kucera

threatened ecological community listing

'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain' threatened ecological community (tuart woodlands) can only be found on the Swan Coastal Plain in Western Australia. The northernmost populations are located 200km from Perth in Jurien with fragmented populations spanning 225km south of Perth to Busselton. Being the largest tree species on the Swan Coastal Plain the tuart is commonly the primary tree species in the uppermost canopy but can often contain other native trees including jarrah (*Eucalyptus marginata*), peppermint (*Agonis flexuosa*) and banksias (*Banksia grandis*, *B. attenuata*, *B. menziesii*) in the

canopy below. Tuart woodlands are also important as they provide critical habitat for many flora and fauna species including several that are listed as threatened such as the western ringtail possum.

The 'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain' are now recognised as a nationally significant ecological community. The ecological community was listed as critically endangered on 4 July 2019 under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Why are tuarts threatened?

The areas where tuart woodlands naturally occur has been significantly cleared due to logging and other land use, including agriculture, urban development and mining, which has resulted in a decrease of 80 per cent of the original extent of the ecological community. Of the remaining tuart woodlands, many of those that aren't surrounded by natural vegetation are in a degraded condition with a high presence of weeds and a considerable loss of native biodiversity. It is estimated that approximately 22 percent of the remaining extent of the ecological community, corresponding to five per cent of the estimated pre-European extent, is protected within formal conservation reserves. The remainder is in other government managed lands that do not have formal conservation status, or in privately owned lands.

Continued next page ...

Left: Eucalyptus trees often are most easily identified using their fruit as there is a lot of diversity between species. The bud shape can also be a great way to ID eucalypts. Eucalyptus gomphocephala has very distinctive buds that are swollen in shape and resemble an ice cream cone. This cone shape is where the name is derived from, 'gompho' (club) and 'cephala' (head). The spectacular flowering displays of tuarts can be witnessed in January–April.

Cover photo: Paganoni Swamp has amazing examples of mature tuart trees in diverse plant communities. This long unburnt bushland has understorey in excellent condition, you could be pleasantly surprised in what you might stumble upon on your next bushwalk through this bushland. Photo – Kimberlee Kucera.



What is protected?

For an occurrence or patch of tuart woodland to be considered part of the threatened ecological community (TEC), it must meet certain criteria identified in the Australian Government's [approved conservation advice](#) using the key diagnostic characteristics, and condition thresholds. For example, patches of vegetation need to occur on the Swan Coastal Plain, should be discrete and mostly continuous areas with at least two living tuart trees in the canopy layer. The patch boundary is 30m beyond the outer canopy of the established tuart trees (including dead trees). In order to be considered a 'Matter of National Environmental Significance', as defined under the EPBC Act, areas less than 0.5ha are not part of the TEC, patches between 0.5–5ha that meet the key diagnostic characteristics will require on-ground surveying to determine if they meet condition thresholds, and patches 5ha or greater that meet the key diagnostic characteristics will be included regardless of condition.

Overlapping communities

The tuart woodlands TEC can co-occur or intergrade with other threatened ecological communities. For example, tuart woodlands may co-occur with the 'Banksia Woodlands of the Swan Coastal Plain' TEC where a canopy of tuart occurs above a banksia dominated tree layer. This will most likely occur on the Spearwood dunes. The 'Aquatic Root Mat Community in Caves of the Swan Coastal Plain' TEC supports a diverse and distinctive assemblage of cave fauna in the dense root mats of tuart trees and this community will occur directly below some occurrences of tuart woodlands.

The 'Sedgeland in Holocene Dune Swales of the Southern Swan Coastal Plain' TEC may also contain a tuart canopy that in some cases will meet the diagnostic characteristics for the tuart woodlands TEC.

Conservation actions

National listing of tuart woodlands provides guidance for management and restoration as well as helping to reduce any further impacts or risks to the community. Listing also means that any activity likely to have a significant impact on the ecological community may need to be referred to the Australian Government Department of Environment and Energy for assessment and approval. Priority conservation and research actions include:

- preventing vegetation clearance and fragmentation
- managing weeds and feral animals, disease and overgrazing
- maintaining groundwater function, ecological connectivity and appropriate fire regimes
- revegetation and regeneration to increase condition
- education, incentives and support and local regulation
- research into community composition, extent, threats and restoration techniques.

Contact

Kimberlee Kucera

Parks and Wildlife Service

email kimberlee.kucera@dbca.wa.gov.au



Mature tuart trees are the largest tree found on the Swan Coastal Plain in Western Australia. They can grow up to 30m tall and can be seen in a narrow band from Jurien to Busselton. These majestic trees grow in a splitting structure where the trunk divides into two or more equal stems which continuously divide as the tree grows. Photo – Kimberlee Kucera.

Urban Nature update *by Julia Cullity*

Spring sees Urban Nature hosting Kimberlee Kucera our Conservation Intern who is completing her conservation and wildlife biology degree with a three-month work placement at the Department of Biodiversity, Conservation and Attractions (DBCA). Actually, we are sharing Kim with the flora conservation officers at Perth Hills District. Kim will be assisting with threatened flora survey and monitoring priority ecological communities on the Darling Scarp and their response to fire. She has assisted greatly with this issue of Bushland News as the author of our cover story, editing, proofing and compiling events, funding opportunities, resources and articles. Kim will soon be heading out to map weeds at some of our demonstration sites and has been assisting with the vegetation restoration program to reverse the decline in nesting habitat for the threatened bridled tern at Penguin Island. We hope she gets a great feel for work within the department and gains skills and experience that she will be able to use in her future career in conservation.

Nature City was a forum designed to showcase research and case studies to improve WA's capacity to better manage, enhance, design and connect with nature in urban areas. I presented a retrospective of 28 years of Bushland News to highlight ongoing community actions to protect, manage and restore natural areas and the importance of the community voice in valuing our urban bushland. It was interesting going back through the archives and picking out examples of community groups moving from

activism to advocacy and management, stories of management success, research collaborations and the scale and scope of funding for bushland management that community groups deliver.

Urban Nature has been working with lots of groups to skill up in bushland management. We have assisted master's students at UWA with a field day on banksia woodland mapping, delivered a field day with WALGA for local government ground staff on native and weed plant recognition and created a workshop for community groups with the Town of Kwinana on weed identification, with a little weed management thrown in. We have also been working on-ground, assisting groups with restoration and regeneration at Paganoni Swamp, Greater Brixton Street, Penguin Island and The Spectacles.

Many of you might be aware that dalapon or 2,2-DPA is no longer commercially available as a selective herbicide to control watsonia and other bulbous weeds, a big loss. DBCA has been investigating if there are other suppliers or herbicides with similar selectivity, however there is no alternative. After consulting with John Moore from Department of Primary Industries and Regional Development, it's recommended to use the broad-spectrum herbicide glyphosate, either wiped onto the leaves (10%) or with targeted spraying in degraded sites (2%), as the best substitute. Weed management notes on Florabase for [watsonia](#), [cape tulip](#) and [black flag](#) still include the dose rates for 2,2-DPA for those lucky enough to still have some left in their storerooms.



Community members from Kwinana and surrounds grappled with weed identification using plant specimens and plant identification resources for Perth. Photo – Julia Cullity.



Flora Conservation Officer Cathy Bourke, Conservation Intern Kimberlee Kucera and Ranger Elisha Jacobs-Smith monitoring a priority ecological community on the Darling Scarp. Photo – Marnie Mallié.



The Friends of The Spectacles can still have a laugh after a long morning hand weeding pigface. Five years into this annual program and there still is a lot to do. Photo – Janene Watts.

Keep an eye out for pokeweed *by Julia Cullity*

Pokeweed (*Phytolacca americana*) is a new weed species for Western Australia, first discovered as an established infestation in the Balingup area last year. It is also been reported in Bridgetown, Mullalyup, Noggerup with an outlier population found near Margaret River. It is found in all other states of Australia. [Pokeweed is a declared pest](#) throughout Western Australia with a control category of C1 (Exclusion) and must be eradicated if found. It is a high priority for eradication as it has a limited known distribution in WA and is toxic to livestock and humans and can contaminate agricultural produce.

Toxic

All plant parts, especially the root, contain saponins and oxalates that can be fatally toxic to humans or livestock when ingested. The plant was used in traditional medicine but can have fatal consequences if not prepared correctly. It is believed the plant was introduced to WA for its medicinal purposes but has since naturalised. Birds are unaffected by the chemicals contained in the berries and eat them dispersing the seeds in their dung.

Description

Pokeweed is a large, perennial shrub up to 3m tall. It has a smooth, stout, purplish-red stem with a chambered pith. The large, bright green elliptic leaves can be 40cm long. White to magenta flowers form in elongated clusters that droop from the branches. Berries begin green, then turn white and ripen to deep purple to black in mid-summer to autumn and are the most distinctive feature. Download the [fact sheet](#) for more photos and information.

Inkweed (*Phytolacca octandra*) is a close relative, a widespread weed of the South West of WA. Inkweed is smaller than pokeweed, up to 2m tall but often much shorter, with smaller leaves up to 25cm and with inflorescences that are more upright, often shorter and more compact.



Flowers and developing fruits (left) of pokeweed (Phytolacca americana). These fruits will turn a deep purple to black as they ripen in summer and autumn. Note the drooping curve to the flower stalk, and the large leaves, characters which distinguish it from its close and widespread relative, inkweed (Phytolacca octandra). Inkweed (right) has an upright, shorter and more compact flower spike. It is also generally smaller in size and its leaves are smaller than pokeweed. Photos – Department of Primary Industries and Regional Development (DPRID) and Jason Dearle.

Biology and distribution

Plants die back to roots each winter and can resprout from their thick central taproot. Early in the growing season the plant has an erect, central stem which changes to a spreading horizontal form when weighed down with berries after it flowers from early summer into autumn. Individual plants can live for several decades and the seeds might be viable for up to 10 years in the soil.

Pokeweed propagates from seed. Birds, machinery and garden refuse are the main transporters of this weed. Pokeweed has been found in rural properties, a pine plantation and along roadsides. Seedlings are often found under roosting trees for birds.

Continued next page ...

Control

Hand remove small seedlings, digging out the entire taproot which will otherwise resprout. Foliar spraying with 2% glyphosate is effective on young plants actively growing in spring or early summer.

For more mature plants, with extensive taproots, triclopyr and imazapyr are the most effective herbicides. These herbicides are mixed with diesel. Use the basal bark technique thoroughly soaking the entire root collar up to 45cm up the stem. The cut stump method is also effective. Cut the stem just below the ground surface and remove all foliage to make it easier to get to the taproot. Drill into taproot and inject in the herbicide.

Remove all fruits and any cuttings from mature plants with flowers or fruits should be burnt or deep buried. Do not dispose in general waste. Care should be taken by using gloves and other protective clothing if working with the plant.

Report in

Please report in any suspect pokeweed plants to assist in its eradication from WA. Either photograph and map it using MyPestGuide Reporter with the [app](#) or [online](#), or contact the Pest and Disease Information Service on 9368 3080 or by [email](#).

Contact

Julia Cullity

Parks and Wildlife Service
email julia.cullity@dbca.wa.gov.au
phone 9442 0320



Pokeweed is a large shrub that can resprout from its taproot. Here a DPIRD biosecurity officer is spraying the root crown after removal of stems and leaves. Injection into the root crown also works as does basal bark spraying. Photo – DPIRD.



Pokeweed is a tall shrub that can grow well over 2m tall with large broad, oval-shaped leaves up to 40cm long. This mature specimen is twice the size of the ute so about 3m tall. Photo – Jason Dearle.

Turtle Trackers: saving our snake-necked turtles by Anthony Santoro



The snake-necked turtle is endemic to the South West of WA. Recent research has documented local populations of turtles experiencing serious decline in urban Perth. Joining Turtle Trackers will help manage nesting turtles in Bibra Lake whilst contributing to research on appropriate habitat and environmental triggers for turtle nesting.
Photo – Sharon Meredith.

Turtle Trackers: saving our snake-necked turtles is a citizen science project to protect Perth's native freshwater turtle. The project is run as a collaboration between Murdoch University, the City of Cockburn, Native ARC, DBCA, The Wetlands Centre Cockburn and the local community. The project aims to harness the power of the community to increase our understanding of the southwestern snake-necked turtle (*Chelodina colliei*) and its nesting ecology, enabling informed management of the species.

Turtles and tortoises are under threat globally; with 60 per cent of species listed as threatened, they are one of the most endangered vertebrate groups. *Chelodina colliei* is currently listed as near threatened by the International Union for Conservation of Nature, however this listing is over 20 years old. The most recent and large-scale survey of *C. colliei* in urban wetlands occurred in 2017 and revealed that many of the populations appear to be in decline; of 35 wetlands, 60 per cent had captures of less than 25 turtles and 95 per cent of captures were adults. These alarming results led to a follow-up study aiming to uncover the reasons behind the apparent declines and lack of juveniles in the populations.

Continued next page ...



Snake-necked turtle hatchlings are tiny, about the size of a twenty-cent piece. They must survive predation as an egg for 30 weeks in an unattended nest and then make their way up to 1km back to a lake to survive. Photo – Anthony Santoro.

The study is taking place within the Beeliar Wetlands at Bibra Lake, North Lake, and Chelodina Wetland at Murdoch University. Results from the first year of research highlighted the extent of the threats currently placing pressure on the turtle populations. At least 40 mature females were killed during nesting movements, either by predators or on roads. Predators also destroyed 135 nests, likely representing most of the turtles' annual breeding potential for these wetlands. In an effort to prevent a repeat of this mortality, several strategies are being trialled this nesting season. These include increasing feral animal control programs, installation of nesting refuges, seasonal signage, and the Turtle Trackers: saving our snake-necked turtles citizen science program.

Turtle Trackers will run throughout the turtles' nesting season. Participants in the program will be tasked with:

- Patrolling designated areas surrounding Bibra Lake throughout the nesting season.
- Looking for nesting turtles and recording observations including photos, GPS readings and tracking movements.
- Contacting the dedicated nest crew from Native ARC to install a protective device over located nests.

The program will provide additional data to enhance information attained from GPS data loggers attached to a subset of the female turtles and help to refine our understanding of the environmental conditions that trigger turtle nesting movements, as well as the habitat conditions that the species prefers when choosing a nest site. This information will be used to improve management of the species, and encourage the protection, restoration and creation of habitat required for nesting.

For further information or to register to become a turtle tracker contact the City of Cockburn 9411 3444 or [email](#). All participants will be provided with the necessary training and protocols to follow during the program.

Contact

Anthony Santoro

Murdoch University

email anthonyturtleresearch@gmail.com



Above: Algae grows on most turtle shells when lake water has lots of nutrients. When there is lots of algae it means the turtle hasn't shed the outer layer of scutes on its shell in a while. After shedding they have nice clean new scutes underneath. Right: Too many female turtles die on the roads or by predators in the dangerous journey from the lake to their nesting ground and back every spring. Photos – Anthony Santoro.



Turtle Biology

The southwestern snake-necked turtle mates in the wetlands during winter and the females leave the water in search of nest sites anytime between September and February. These nesting movements usually peak in October and November and appear to be triggered by rainfall and drops in barometric pressure. Open, sandy sites appear to be the preferred habitat for nest sites. Once laid, the eggs are left unattended and take up to 230 days to hatch. When they are ready, the hatchlings leave the nest to make the treacherous journey to the wetland. The egg stage of the turtle life cycle is the most vulnerable with predation often occurring within the first 24 hours; this is why we need eyes on the ground to witness and protect as many nests as soon as possible! To help deter predation, protective nest cages have been designed to be installed over individual nests. They are made of plastic meshing that will allow the hatchlings to leave the nest when ready.



Volunteering with wildlife

by Kimberlee Kucera

The volunteering opportunities at Monkey Mia will allow you to experience wildlife like Kiya the dolphin. Spend your mornings out assisting the local staff with tasks like surveying and beach care while having your afternoons free to explore what Monkey Mia has to offer. Photo – Parks and Wildlife Service.

Dolphin Experience in Monkey Mia

Parks and Wildlife Service are [looking for volunteers](#) to assist with the Monkey Mia Reserve and dolphin experience. Support local staff with dolphin data collections, wildlife feeding and beachfront care for anywhere between 4–14 days. Help with early morning shifts and spend your afternoons exploring the wonders the surrounding areas have to offer. Speak to staff at the Monkey Mia shop on 9948 1366, or [email](#).

Eco Beach Turtle Conservation

Conservation Australia is looking for volunteers to assist in [flatback turtle monitoring](#) at Eco Beach, Broome. Enjoy up-close encounters with flatback turtles while recording data on their nesting activities for the long-term research program. Experience the beauty of the Kimberley coastline with early morning and evening patrols searching for mature females, nesting locations and tracks. Assist with either one or two weeks of the program, 21 November–5 December 2019. Volunteers will be required to pay a contribution towards food, accommodation and transport.

WA Malleefowl Recovery Group

[Volunteers are needed](#) to assist in the ongoing monitoring of malleefowl across the State. Spend time bushwalking with a purpose through rural parts of Western Australia in search of malleefowl mounds. Training weekends will be held in October and November at Dalwallinu, Nyabing and Ongerup. Merriden and Ongerup surveys will be held in October while Hidden Valley and Dalwallinu surveys are still to be scheduled. Check their [Facebook](#) for dates and contacts.

Ringtail Possum Tally results for 2019

by Geoff Barrett

The Autumn 2019 GeoCatch Ringtail Possum Tally marks the fourth year of this count at 48 locations across south-west WA. A total of 701 observations were made of western ringtail possums by 34 volunteers, and it is pleasing to see that the average number of possums being seen is similar to previous years (around three possums per evening survey).

Where it occurs, coastal peppermint (*Agonis flexuosa*), is still their tree of choice for feeding. Almost half the survey sites were in suburban backyards (44%) and over half of the sites surveyed had young possums present (53%). Sadly, road kills still are the cause of most reported deaths (94%).

This year, in partnership with DBCA, Wirambi Landcare is coordinating a Spring Ringtail Tally, focussing in the Mandurah/Dawesville area, from mid-September to mid-October 2019. This is significant because we are interested to know whether this northern sub-population of western ringtail possums is surviving in the urban areas that surround Yalgorup National Park.

If you live in this area and have western ringtail possums at your place and would like to tally them for us one evening, please get in touch.



Western ringtail possums are smaller and darker than brushtails, and have their distinct, white-tipped ringtail.
Photo – Ian Wilson.

Contact

Jason Bird

Wirambi Landcare
email wirambilandcare@gmail.com
phone 9442 0320

Geoff Barrett

Parks and Wildlife Service
email geoff.barrett@dbca.wa.gov.au
phone 0418 953 050

Feral cats a declared pest in WA

by Geoff Cullen

In June 2019 the Western Australian State Government declared feral cats a pest under the *Biosecurity and Agriculture Management Act 2007*. This declaration allows Government, [Recognised Biosecurity Groups](#), Natural Resource Management groups, community groups and land managers to lawfully manage feral cats to help protect native fauna in Western Australia.

The policy statement [Feral cat declared pest – minimise risk to domestic cats](#) developed by the Department of Primary Industries and Regional Development (DPIRD) provides for several feral cat control methods. Fencing areas of high conservation value is one cat control measure that can be used to protect known populations of native fauna. This method will usually be coupled with other methods such as baiting and is effective at reducing the potential impact on domestic cats.

Control groups will be able to bait for feral cats using Eradicat 1080 baits only when authorised by DBCA and used by an Authorised Officer operating under the [Code of Practice for the Safe Use and Management of Registered Pesticides containing 1080, PAPP and STRYCHNINE For vertebrate pest management in Western Australia](#). This will only be allowed after a thorough risk assessment has been undertaken and approved by the Feral Cat Technical Committee.

Trapping is another control method available using cage traps and is appropriate for control near more populated areas as it allows trapped



In Western Australia, 36 mammals, 22 bird and 11 reptile species are vulnerable to [predation by feral cats](#) and a wide range of other native animals are also adversely affected by feral cats. Photo — DBCA motion sensor camera.

animals to be checked for collars and microchips. Leg hold traps are a prohibited method for trapping cats in Western Australia.

Shooting is a control method that can be employed for highly targeted areas but must comply with all relevant legislation on the use of firearms in Western Australia.

The declaration does not cover domestic cats, which are covered under the *Cat Act 2011*. There are detailed guidelines for the protection of domestic or stray cats in the DPIRD policy statement that should be [referred to](#) prior to any control operation along with [standard operating procedures](#) available from the pest smart website. Prior notice should also be given to Local Government and private landowners.

Contact

Geoff Cullen

DBCA
email geoff.cullen@dbca.wa.gov.au

Perth Water Buneenboro Precinct Plan open for comment

The Perth Water Buneenboro Precinct – the section of the Swan River and its foreshore between the Narrows and Windan bridges – is evolving with several major projects underway, increasing visitor numbers and growing interest for tourist and commercial ventures. Given the significance of Perth Water, [a draft Precinct Plan](#) has been developed to guide future improvement of the precinct, its foreshores and abutting private development interface in a strategic and proactive manner for the wider benefit of all visitors to the area.

The draft plan sets a framework to determine acceptable developments (including uses) for the area based on defining landscape characteristics, community aspirations and environmental and cultural values. Considerations within the draft include recreation, commercial nodes, public access, facilities and services infrastructure, foreshore protection, and environmental enhancement and management.

Consultation on the plan is open to the entire Perth community. Please [submit your comments](#) by 23 October 2019.

Contact

Perth Water Precinct Planning Team

DBCA

email precinctplan@dbca.wa.gov.au



Perth Water Buneenboro Precinct Plan Area

Perth Water Buneenboro Precinct is the section of the Swan River and its foreshore between the Narrows and Windan Bridges. The draft Precinct Plan is open for public comment until 23 October 2019.

BirdLife WA are calling for volunteers for two new initiatives funded by State NRM Program and Lotterywest.

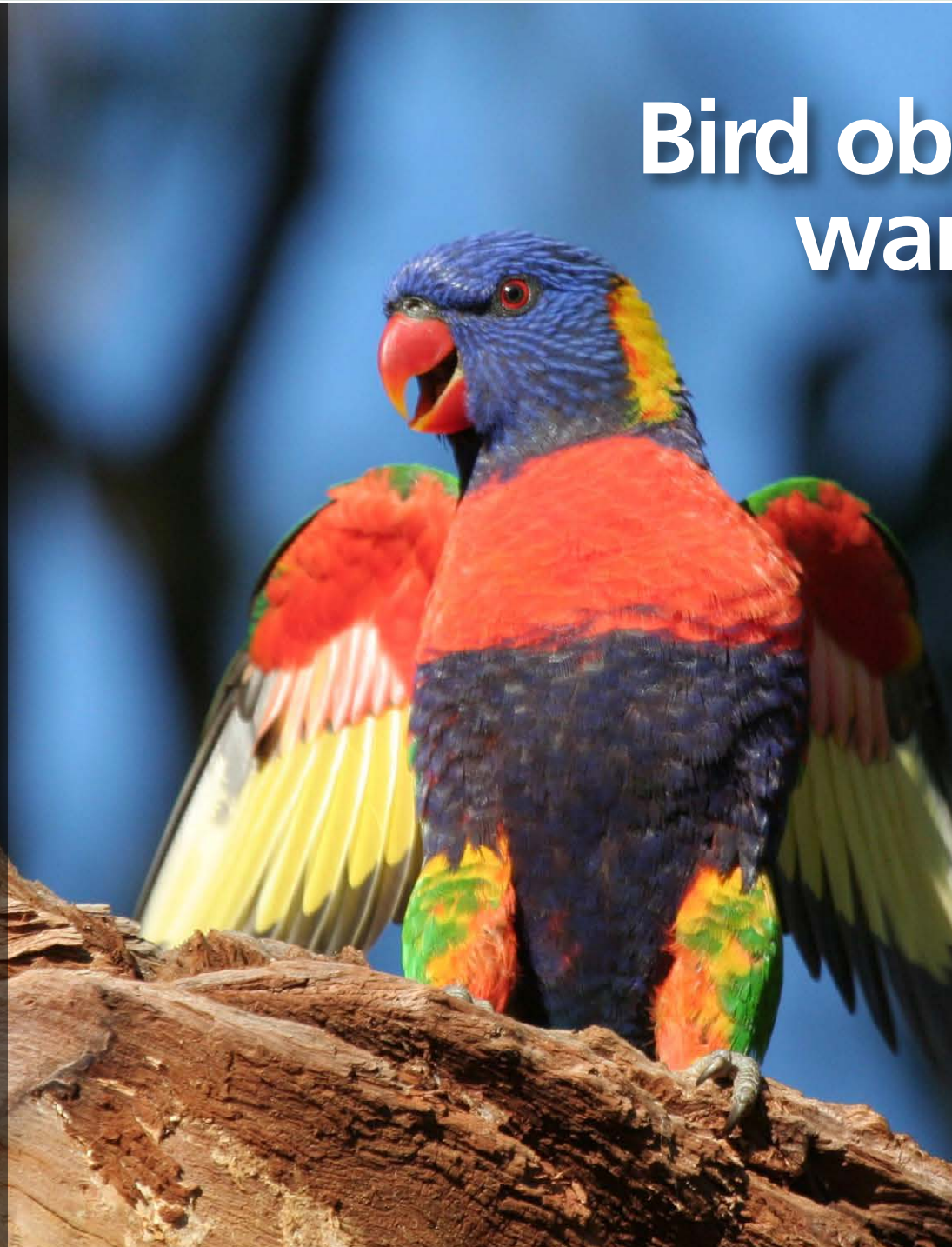
Rainbow lorikeets are not native to Perth and are competing with our local ringnecks and red-capped parrots by aggressively protecting food and nest resources. Yet we have few breeding records of rainbow lorikeets for Perth. BirdLife wants to better understand the types of nests used by rainbow lorikeets and use this information to inform future nest enhancement practices in urban areas. We are looking for people to help with this project by either reporting hollows (artificial or natural) that rainbow lorikeets have been seen entering or leaving. Or you could assist with monitoring specified hollows for lorikeet activity.

BirdLife is also collating information about significant trees for our threatened black cockatoos. This will be made available to local and State government to be used to inform land management decisions and protect important habitat for black cockatoos across the Perth–Peel region. We have launched a mobile phone [app](#) where you can record feeding, roosting or hollow activity by black cockatoos. Sign in once and report for 12 months!

Right: Rainbow lorikeets are not native to Perth and are competing with our local parrots by aggressively protecting food and nest resources. Birdlife WA is asking for volunteers to report breeding rainbow lorikeets or to assist with monitoring hollows for lorikeet activity. Photo – Maris Lauva.

Bird observers wanted

by Vicki Stokes



Contact

Vicki Stokes

Birdlife WA

email vicki.stokes@birdlife.org.au

phone 0409 033 126



*The Busselton Naturalists Club is working on a five-year revegetation program in degraded areas of Ambergate Reserve. We get a good turn-out on planting days.
Photo – Bernie Masters.*

Ambergate Reserve management by Busselton Naturalists *by Bernie Masters*

Founded in 1964, the Busselton Naturalists Club is one of the largest and most active conservation groups in rural WA. We exist 'to encourage interest in and conservation of the natural environment of the South West'.

In 1984, the then Shire of Busselton was approached by a landowner adjoining the 75ha Ambergate Reserve which lies some 9km south of the town. The neighbour wanted to lease part of the reserve for cattle grazing but club member Frank Elliott urged the club to oppose the proposal as the reserve contained important environmental values. The Shire agreed to defer any decision on the proposal which gave us time to survey the reserve and return to the Shire with our own proposal.

Three years later, the Club produced a report confirming the high natural values of the reserve and proposed a number of actions – rubbish removal, fox baiting, weed removal, walk trail construction. The Shire accepted our plan, appointing us as reserve managers. Today, we still actively manage the large area of threatened ecological communities and have a five-year revegetation program for degraded sections of the reserve. The site is now one of the best places to see wildflowers in the Busselton area.

Contact

Bernie Masters

Busselton Naturalists Club
email berniemasters@inet.net.au



*The wildflowers at Ambergate Reserve are worth a visit in spring. Here the peas are stealing the show with Hovea stricta growing amongst Kennedia coccinea.
Photo – Bernie Masters.*



by Helen Green

River Conservation Society – Avon River Revegetation Project

The Department of Fire and Emergency Services has assessed the vegetation on the Avon River in York as a significant bushfire risk and funding was made available from the State Government to mitigate this risk. The River Conservation Society (RCS) was asked to advise on these works.

During the first half of 2019, fire access tracks were established and some riparian vegetation removed. On request from the RCS the weed African Boxthorn (*Lycium ferocissimum*) was mulched and other weeds slashed. This work enabled the RCS, with assistance from 60 York community members, York school students, Activate The Wheatbelt, Girl Guides and the Noongar Boodja Rangers, to plant more than 8,500 trees, shrubs, sedges and ground covers.

The RCS also monitored wildlife habitats, remnant native vegetation and gave advice on how to avoid erosion and drainage problems. A riparian vegetation buffer zone was left on the river edge and animal corridors were retained. Recent camera monitoring had shown the rakali (native water rat), southwestern snake-necked turtle and numerous water birds present.

The work is ongoing and RCS volunteers are continuing with weed control, placing signage, controlling feral animals and more revegetation. The field cameras will continue to monitor animal activity. There are years of work ahead, but optimism is high.

This year, with a great deal of help from 60 York community members, York school students, Activate The Wheatbelt, Girl Guides and the Noongar Boodja Rangers, The River Conservation Society planted over 8,500 trees, shrubs, sedges and ground covers on the Avon River. Photo – River Conservation Society.

Contact

John Crook

River Conservation Society

email info@riverconservationsociety.org

Rehabilitating Roe 8 update

by Linda Metz and Eva Scheuerlein

The Rehabilitating Roe 8 [Rehabilitation Management Plan](#) continues to be implemented and has progressed over the last 12 months. This project has seen tremendous volunteer commitment to date as detailed in [our annual report](#). Volunteers contributed 1,912 hours with an in kind value of \$57,360 during 2018-19:

- 346 community members attended on-ground community events comprising of planting, weeding and education days.
- Two community capacity building workshops were held including a 'bat box building' and 'Insect Insight' workshop.
- Five schools have been engaged through planting and education activities with year levels ranging from primary to tertiary.
- 52,500 seedlings were planted.
- 18ha were managed for weeds.
- 69 species of ants were identified in the corridor through an invertebrate survey, with a vertebrate survey to be conducted this spring.

The Rehabilitation Management Plan developed several [restoration goals](#) to measure the success of the project. Vegetation monitoring has been completed in the corridor by Murdoch University. Of the seven vegetation communities identified in the corridor, two are on track (within range of averages for the benchmark reference), three were below reference averages, one requires additional monitoring and one had mixed results.



Perth Waldorf School students planting in Roe 8 corridor, 2019. Photo – Linda Metz.

Contact

Linda Metz
City of Cockburn
email lmetz@cockburn.wa.gov.au



Alcoa and Friends of The Spectacles volunteers joined forces on 17 July to improve the culturally and environmentally important Spectacles wetland in Kwinana, by putting 800 plants in the ground. Photo – Scott Hansen.

Alcoa digs in with Friends of The Spectacles

by Scott Hansen and Lynda Smith Edited reprint with thanks from the Alcoa website

Alcoa employees teamed up with local volunteer group Friends of The Spectacles (FoTS) to plant nearly 800 seedlings at the environmentally and culturally important Kwinana wetland on Wednesday 17 July. FoTS accessed the extra helping hands through the Alcoa Volunteers program, whereby teams of Alcoa employees can spend up to four hours of work time volunteering in the local community with non-profit organisations.

FoTS Coordinator Lynda Smith said the Friends have planted just over 2,000 plants this season and it would not have been possible without the Alcoa team. "The tree planting event was a wonderful success and an opportunity to connect with our neighbours from Alcoa, who were a fun group of hard workers. We look forward to working with them again next year."

Lynda said FoTS was this year successful in securing a Community Stewardship Grant from the WA Government's State NRM Program which will enable

the Friends to continue their revegetation work at The Spectacles for the next three years. This year's component means that a large portion of degraded land will have weeds controlled and trees planted. This is an exciting time for us as it means we will be able to return a large portion of land that was used for farming to a more natural environment and potential habitat for a variety of fauna.

Along with Lynda, FoTS members Linda DuBoulay and Julie D'Ercole were joined by the Alcoa team from the Kwinana Alumina Refinery and residue storage area to plant and place protective bags around the plants to provide protection from rabbits. The site was prepared by staff from DBCA Parks and Wildlife Service.

Contact

Lynda Smith
Friends of The Spectacles
email fotsmail@gmail.com

Partnership, patience, and hard work the key to a healthy rail corridor

by Kristy Gregory Edited reprint with thanks from Landcare SJ website

That's what it took to achieve simultaneous outcomes for bushfire safety and the natural environment in the Paterson Street rail reserve, Mundijong.

In 2015, Arc Infrastructure (then Brookfield Rail) contracted Landcare SJ to coordinate the controlled burn and follow-up weed control in the section of rail reserve that runs through the town site of Mundijong. A hazard reduction burn was required due to the proximity to houses, and the site needed to be managed carefully due to the presence of both threatened flora and a threatened ecological community.

The Shire of Serpentine Jarrahdale came on board, with the time and expertise of botanist Dr Penny Hollick. Furthermore, DBCA provided initial technical support from botanist Anne Harris. With their help, flora monitoring plots were set up in May 2015, to track how the threatened flora and other native species responded to the burning. Advice from DBCA also included how and when to burn, to ensure the native regeneration was aided as opposed to hindered.

Before any other actions, an initial sweep of weed control activities was carried out using a range of methods. African lovegrass and broadleaf weeds were controlled with targeted application of a knockdown herbicide and woody weeds were removed using the basal bark method. This was necessary because of the propensity of weeds to seed when stressed, such as during a burn.

Keeping the weeds away after the burning was also a necessary part of the plan, to reduce the ongoing fuel load, as weeds such as grasses are highly flammable. Contrary to popular opinion, many native plants are of low flammability, and their presence is preferable to weeds, which can overtake a site that has been burned.

Weed control contractor Tim Heckler is a practitioner of targeted herbicide application to minimise off-target damage and proliferate native regeneration. "The success of the program depends on thorough site inspections for each weed control exercise because the site is so long and thin, and the edge effect is greatly pronounced", said Mr Heckler.

Continued next page ...



*A mild burn in autumn 2015 of the area containing the flora plots.
Photo – Shire of Serpentine Jarrahdale.*



The kangaroo paws look great in spring! Photo – Landcare SJ.

“Wind-borne weed seed has huge access on both sides, in addition to the action of water runoff into the site at various locations, bringing unwanted seed and propagules of weed species”.

The site was divided into cells to facilitate a mosaic burning pattern, which allowed for progressive fuel reduction whilst minimising negative effects such as damage to fauna, and overwhelming response of weeds. The first burning exercise occurred in October 2015, and continued annually until mid-2017, when the section of reserve containing threatened flora was burnt in autumn. The Serpentine Jarrahdale Fire and Emergency Services and the Mundijong Volunteer Bushfire Brigade did a fantastic job adhering to the recommendations of DBCA for the protection and enhancement of the bushland.

The delicate method and timing of the burning allowed it to be used as a tool for regeneration. Threatened flora at the site is expected to respond well to a mild burn, which

is why an autumn burn is recommended. It gives the plants time to recruit prior to cold soil temperatures and grow sufficiently before competition from other species comes into play.

The flora monitoring plots that were set up in May 2015 were placed both within and outside of the burn area, for a direct comparison of species' responses to the fire. Field sheets were completed at the time of establishment, which recorded information such as the species present, weed cover, leaf litter, and vegetation structure. Follow-up monitoring occurred in October 2017 and results will be collated after further assessment in spring 2019 and 2020. Initial results have been pleasing with the maintenance of weed free bushland. Ongoing weed control is occurring at the site, to ensure continuing establishment of native species, and to increase the bushland's resilience to future weed infestation.

This project is a great example of collaboration between organisations with complimentary capacity and expertise, which was underpinned by the investment of Arc Infrastructure in the protection and enhancement of a significant natural area under their management. It's a case of not using the same set of rules for all sites, and tailoring on-ground action to individual circumstances. The result has been reduced fuel load in a built up area, maintained by keeping highly flammable weeds at bay, and an increasingly healthy and resilient plant community that looks great too. You should see the kangaroo paws in spring!

Contact

Kristy Gregory

Landcare SJ

email kristy@landcaresj.com.au



Photo monitoring in burn cell 1, immediately after the fire (left) and then four years later (right). No weeds! Photos – Landcare SJ.

The Ludlow Tuart Forest Restoration Group Inc.

by Janet Wells

Late in 2017 the national Threatened Species Scientific Committee commenced an assessment of the 'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain', opening their draft Conservation Advice for public comment. Several individuals within the Capel community, concerned about the ongoing decline of the region's iconic tuart forest, and the historic Ludlow forest settlement, made submissions to the committee. Discussing the plight of 'their' forest amongst themselves they lamented the apparent inability of slowing its decline despite the best efforts of various concerned hardworking volunteer groups over recent years.

In December 2017, in what can best be described as a case of serendipity, two passionate forest advocates were brought together by a like-minded mutual friend and with support from DBCA a number of guided tuart forest tours were hastily organised to further inform community members of the desperate plight of the remnant tuart forest ecosystem.

In January 2018 following two well attended organised meetings the [Ludlow Tuart Forest Restoration Group](#) (LTFRG) was formed. Its key purpose being: to provide community support for the essential restoration, protection and ongoing maintenance of the iconic Ludlow tuart forest and the historic Ludlow settlement for the benefit of future generations, biodiversity, tourism, education and research.

Two public community presentations, together with presentations to full council meetings of the City of Busselton and the Shire of Capel were made to test public



Centenary celebration at Ludlow Timber Settlement, 13 May 2018. An overwhelming success with over 1000 visitors resulting in new memberships, support and donations to LTFRG and heightened public awareness for the Ludlow Tuart Forest. Photo – JR Wells.

sentiment. The feedback from these presentations gave confidence to the LTFRG committee to proceed with the intention of restoration of the forest and the supporting forest settlement for all future values.

To further test public support and to attract membership, a 'Centenary Day' was held at Ludlow in May 2018, to commemorate 100 years of forestry guided by the *Forests Act 1918*. This free event was overwhelmingly successful with more than 1,000 visitors resulting in new memberships, offers of support, donations and heightened public awareness in support of restoration.

Political interest was heightened by presentations to visiting local, State and Federal government members

and responsible ministers who provided advice and encouragement to seek funding to begin the vital and timely restoration work with the support of DBCA.

With the assistance of a small grant from Forest Products Commission the LTFRG held a tuart planting day in September 2018. The aim: to engage the interest of local children and their families and to help foster a sense of ownership in the tuart forest. **It is this sense of ownership within the community that the group feels is the key to the long-term success of their [restoration efforts](#).**

Continued next page ...

Since inception the LTFRG has worked collaboratively with DBCA as well as the Shire of Capel and the City of Busselton to ensure compliance with all relevant regulations. An agreement has been reached with DBCA for the group to plant, over the next five years, 185ha of former pine plantation back to tuart, in an area known as Lochart Block.

In June this year 17,000 seedlings, propagated under quarantine conditions, were planted by over 400 school students and volunteers, from eight South West schools. A further 50,000 seedlings are currently being propagated in readiness for planting in 2020. Following the flowering of tuarts this year, an event which only occurs every five to seven years, seed will soon be harvested to ensure supply for further plantings over coming years.

Restoration and repurpose of the historic Ludlow forest settlement is progressing at a rapid rate with the assistance of dedicated volunteers, support from neighbours, small and large businesses, and local and State government. The rapid rate of progress is supported by Corrective Services day release parolees helping out on a frequent basis. [Busy bees](#) are also well attended by member volunteers and are held on the first Sunday of each month.

A caretaker is in residence and together with the fencing sponsored by Busselton and Capel councils, vandalism has almost ceased. DBCA are progressing the removal of hazardous materials which will allow work to begin on restoration of cottages. A 21-year lease agreed between DBCA and LTFRG is nearing completion.

Funding remains the key challenge facing this charitable, not-for-profit organisation, with grant applications a necessary, yet time consuming part of the committee workload. Ongoing funding is essential to meet the aims and objectives of this community group for the benefit of the tuart forest and future generations.



Volunteer seedling planters at Lochart Block in the Ludlow tuart forest, June 2019. This year 17,000 seedlings were planted, next year it will be 50,000. Photo – JR Wells.

The dedicated work by the elected committee members supported by all 500 LTFRG members, the general community and DBCA has allowed restoration projects to proceed seamlessly and the results achieved to date are considerable and invaluable. All of the achievements are a direct result of committed volunteer community members all working together to meet the above stated objective.








Contact









Kathy Rutgers

Ludlow Tuart Forest Restoration Group
email admin@ludlowtuartforest.org.au

Opportunities for you to participate! Visitors always welcome but please confirm activities with contact person. Most activities are FREE!

Recurrent activities

-  **Saturdays 15 minutes before sunrise**
Research into bird populations with the **Herdsmen Lake** Bird Banding Group. Contact: Bill 0438 910 252
calidris@inet.net.au
-  **Saturdays 8am–9am**
Guided walks with Friends of **Koondoola**. Second Saturday of each month. Meet Gate 2, corner Koondoola and Burbridge Ave, Alexander Heights. Contact: David 9448 9192
-  **Saturdays 8am–9am**
Guided walks with Friends of **Lake Gwelup** naturalist David Pike. Third Saturday of each month. Meet at Scout Hall carpark (near the tennis courts), Huntriss Rd, Gwelup. Contact: friendsoflakegwelup@gmail.com
-  **Saturdays 8am–9am**
Guided walks and meeting with Friends of **Landsdale**. First Saturday of each month. Meet at third gate Landsdale Rd, east of Landsdale Farm School, Darch. Contact: David 9448 9192
-  **Saturdays 8am–9am**
Guided walks with Friends of **Star Swamp**. Fourth Saturday of each month. Meet at the Henderson Environment Centre in Groat St, North Beach. Contact: Christine 0430 013 364
-  **Saturdays 8am–9am**
Guided walks with Friends of **Trigg Bushland**. Fifth Saturday of each month. Meet in St Mary's School carpark, off Elliot Rd Karrinyup. Contact: David 9448 9192
-  **Saturdays 8am–10am**
Bushcare activities with Swan Estuary Reserves Action Group at **Alfred Cove** Nature Reserve. Fourth Saturday of each month. Contact: Cathie 9339 2439 oneillc@westnet.com.au

-  **Saturdays 8.30am–10.30am**
Bushcare activities with the Friends of **Booragoon** and **Blue Gum Lakes**. First Saturday of each month. Meet at the boardwalk into Booragoon Lake on Aldridge Rd, Booragoon. Weeds course third Saturday of each month at Blue Gum Lake. Contact: Mary-Ann 0456 357 799 molly.olly1@bigpond.com
-  **Saturdays 8.30am–10.30am**
Bushcare activities with Swan Estuary Reserves Action Group at **Pelican Point, Crawley**. First Saturday of each month. Contact: Cathie 9339 2439 oneillc@westnet.com.au
-  **Saturdays 9am**
Bushcare activities with Friends of **Brixton Street** Wetlands. Third Saturday of each month. Meet Alton St, Kenwick. Contact: Regina 9459 2964 tjdrd@bigpond.net.au
-  **Saturdays**
Bushcare activities with Friends of **John Forrest National Park**. Equipment, instruction and morning tea provided. Starting times and tasks change according to the season. Contact: Jan 0409 299 861 joejanking1@bigpond.com
-  **Saturdays and Tuesdays 9am–12 noon**
Bushcare activities with Friends of **Yellagonga** Regional Park. Nursery and project work each Saturday and Tuesday morning, regular workdays on the last Saturday of each month. Contact: friendsofyellagonga@bigpond.com
-  **Saturdays, Sundays 9am–12 noon**
Koala maintenance at **Yanchep** National Park. Contact: Ciara 9303 7771
-  **Sundays 8am–10am**
Bushcare activities every Sunday with Friends of **Shenton Park** Bushland. Contact: Dani 0420 334 601 bojel@inet.net.au
-  **Sundays 8.30am**
Bushcare activities with Friends of **Wireless Hill**. Second and fourth Sunday of each month. Meet at main carpark. Contact: Margaret 0402 105 649 s3mmatthews@hotmail.com

-  **Sundays 9am–11am**
Friends of **Lake Claremont busy bee** and morning tea, second Sunday of each month. Meet at the south end of Strickland St, Swanbourne. Gloves and tools provided. Contact: 0416 614 696 www.friendsoflakeclaremont.org
-  **Sundays 9am–11am**
Bushcare activities with **Cottesloe** Coastcare. First Sunday of each month. Contact: Robyn 9384 7668 info@cottesloecoastcare.org [website](#)
-  **Sundays 9am–12 noon**
Bushcare activities with the Friends of the **Spectacles** (Kwinana). Third Sunday of each month. Contact: Lynda 0419 983 956 fotsmail@gmail.com
-  **Sundays 9am**
Bushcare activities with the Friends of **Samphire Cove** Nature Reserve, Halls Head. Last Sunday of each month. Contact: Barry bjdoongin@gmail.com [Facebook](#)
-  **Sundays 9.45am–12 noon**
Bushcare activities with the Friends of **Piesse Brook**. Third Sunday of each month. Contact: Ken 9293 3159 bibbulman@hotmail.com 0402 243 351
-  **Sundays 1pm–4pm**
WA Gould League's **Herdsmen Lake Wildlife Centre** holds **family nature days**. First Sunday of each month. \$5/\$20 family. Corner Selby St and Flynn St Wembley. Contact: 9387 6079 or [register](#)
-  **Sundays**
Wilson Wetlands Action Group undertakes regular **work mornings** throughout the year on Sunday mornings. Contact: 0407 135 412 wilsonwetland@gmail.com
-  **Mondays 7am–8am**
Norma's Monday Morning **Weeding Group**. Friends of **Lake Claremont** weekly hand weeding. Learn basic weeding techniques and identification. Meet at south end of Strickland St. Contact: 0413 282 515

Activities Key



Hands on – bushland and wetland management activities.



Walks and tours – look, listen and enjoy guided walks and excursions.




Skills development activities – talks, presentations, training courses and workshops.



Meetings and events – group meetings, expos, festivals and conferences.

Recurrent activities ... *continued*

Mondays 8am–10am

 **Litter collection** with Swan Estuary Reserves Action Group at **Milyu Nature Reserve, South Perth**. Second Monday of each month. Contact: Cathie 9339 2439 oneillc@westnet.com.au

Mondays

 **Plant learners' group** with **Eastern Hills Wildflower Society**, meets twice a month in a self-learning environment to identify plants and expand knowledge. Contact: Pam eastern.hills.branch@wildflowersocietywa.org.au

Mondays

 **Propagation group** with **Eastern Hills Wildflower Society**, meets twice a month to share knowledge about propagating native plants. Contact: Sandy eastern.hills.branch@wildflowersocietywa.org.au


Mondays, Wednesdays, Fridays 9am–12 noon

 **Bushcare activities** and wetlands walk trail maintenance with **Yanchep National Park** Volunteers. Contact: Ciara 9303 7771

Tuesdays 7am–9am

 **Bushcare activities** with Swan Estuary Reserves Action Group at **Alfred Cove Nature Reserve** each Tuesday. Contact: Margaret 9330 1791


Tuesdays 9am–11am and Saturday

 **Bushcare** with Friends of **Allen Park** every Tuesday and first Saturday of the month. Contact: Lesley 9384 7983 Judy 9383 1501, foapbg@gmail.com or [Facebook](https://www.facebook.com/foapbg)

Tuesdays and Thursdays, 8am–10am

 **Coastcare activities** with **Stirling** Natural Environment CoastCare (SNEC). Contact: Sheldon 0488 190 651 Rae 0419 191 710 [website](http://www.stirlingcoastcare.org.au)


Wednesdays

 **Seed cleaning group** with Eastern Hills Wildflower Society, meets fortnightly to prepare seeds for propagation. Contact: June eastern.hills.branch@wildflowersocietywa.org.au


Wednesdays and Saturdays 7.30am–9.30am

 **Bushcare activities** with **Bicton** Environmental Action Group. Planting, weeding and foreshore cleanup. Various dates. Contact: Peter 0439 467 855 pneesham1@hotmail.com [website](http://www.bictonbushcare.org.au)

Thursdays 7.30am–9.30am and some Saturdays 8.30am–12 noon

 **Coastcare activities** with Friends of **Sorrento Beach** and **Marmion Foreshore** followed by morning tea. Contact: Mike 0438 710 527


Thursdays 8am–9am

 **Bushcare activities** every Thursday with **Byford** Enviro-Link. Contact: Kristy 9526 0199


Thursdays, Saturdays and Sundays 9am

 **Morning walks** with Friends of **Bold Park** Bushland Volunteer Guides. Various dates. Contact: 9480 3996 friendsbp@bgpa.wa.gov.au [website](http://www.boldpark.org.au)


Thursdays and Sundays 10am–12 noon

 **Kanyana Wildlife Centre, Discovery Centre Tours**. Close encounters with native animals and interactive Discovery Centre. \$20 or less. Bookings essential. Contact: 9291 3900 info@kanyanawildlife.org.au [website](http://www.kanyanawildlife.org.au)

Thursdays or Fridays 9am–4pm

 **Wetland, bushcare and nursery activities** with The **Wetlands Centre, Cockburn**. Contact: Denise 0412 081 540 community@thewetlandscentre.org.au

Thursdays 7.30pm

 **Talks** with **Murdoch** Branch of the **Wildflower Society** to share passion and knowledge of nature. First Thursday each month. Cockburn Wetlands Education Centre. Contact: Christine 0468 676 933 murdoch.branch@wildflowersociety.org.au [Facebook](https://www.facebook.com/murdochwildflowersociety)


Fridays 8am

 **Bushcare activities** at **Piney Lakes**. Volunteers need a site induction. Contact: Jacklyn.kelly@melville.wa.gov.au

Fridays and Sundays

 **Bushcare** with Friends of **Mosman Park** Bushland every Friday and the second Sunday of each month. Site determined the week before. Contact: mail@mosmanparkbushland.org


Fridays 7.30pm

 **Talks** with **Eastern Hills** Branch of the **Wildflower Society**. Fourth Friday each month, Octagonal Hall, 52 McGlew St, Glen Forrest. \$2 entry, visitors welcome. Contact: eastern.hills.branch@wildflowersocietywa.org.au, [Facebook](https://www.facebook.com/easternhillswildflowersociety) [website](http://www.easternhillswildflowersociety.org.au)


Fridays and Saturdays 7pm–9pm

 **First Friday and second Saturday** every month, **Nocturnal Tours, Kanyana Wildlife Centre**. Meet nocturnal native wildlife and hear about endangered species breeding programs. \$20 or less. Bookings essential. Contact: 9291 3900 info@kanyanawildlife.org.au [website](http://www.kanyanawildlife.org.au)


Check calendar

 **Birdlife Australia** hold regular **talks** and **excursions** each month. [View](http://www.birdlife.org.au) their calendar.


Check dates

 **FPP Friends of Point Peron** are holding **Bushcare** days during October to December commencing at 9am (6, 10, 13, 28, 30 October; 3, 5, 7, 10, 11, 12, 17, 18, 19, 24 November; 1, 8 December). Look for the signs Safety Bay Rd or Memorial Dr Rockingham. Bring your own gloves, water and dress for the bush. Contact: James 0455 157 547 jgmumme@live.com.au.

Check calendar

 **WA Naturalists** hold regular **excursions, photo groups** and **campouts** each month. [View](http://www.wanaturalists.org.au) their calendar for the activities of the four branches.

Check calendar

 **Wildflower Society of WA** holds regular **talks**. [View](http://www.wildflowersocietywa.org.au) their calendar.

Activities Key



Hands on – bushland and wetland management activities.



Walks and tours – look, listen and enjoy guided walks and excursions.












Skills development activities – talks, presentations, training courses and workshops.








Meetings and events – group meetings, expos, festivals and conferences.

October

-  **2 Wednesday 9.30am-12 noon**
Children's nature walk along the **heritage trail in Glen Forrest**. Ages 8–15 accompanied by an adult, meet at MJ Morgan Reserve (train park) Railway Pde. Free to [register](#).
-  **5 Saturday 9am–11am**
Friends of Black Cockatoo Reserve **walk** at **Black Cockatoo Reserve**, Mundaring. Meet at Jarrah Rd. Free to [register](#).
-  **6 Sunday 9am–12 noon**
Planting along **Wright Brook**, Kelmscott. Meet at the corner of Connell Ave and Brookside Ave. **AGLG**
-  **8 Tuesday 9.30am–12 noon**
Walk and explore for unseen critters in the water and the bush of **Gravey Park**, Ascot. Ages 5–10 years accompanied by an adult, meet at Garvey Park, Fauntleroy Ave. Register environment@belmont.wa.gov.au or call 9477 7257.
-  **9 Wednesday 2.30pm–4.30pm**
Children's wildflower walk at **Lake Leschenaultia**, Chidlow. Ages 5–11 accompanied by an adult. Free to [register](#).
-  **9 Wednesday 2.30pm–4.30pm**
Bird Photography workshop with Dave Dichburn at **Lake Leschenaultia**, Chidlow. Ages 12–16, parents welcomed but not required, bring your camera and get snapping. Free to [register](#).
-  **13 Sunday 8.30am–12 noon**
Spring into Armadale **walk Fletcher Park** and Lambert Lane Reserves, Wungong. Meet at the intersection of Lambert Lane and Wilson St. [Details](#).
-  **13 Sunday 9am–12 noon**
Planting along **Gilwell Ave Link**, Kelmscott. Meet along Gilwell Ave. **AGLG**
-  **13 Sunday 8am**
Birdwalk, Forrestdale Lake, Armadale. Meet at Moore St carpark. **BirdLife**



October Eco Treks guided walk at Mary Carroll Wetland could provide you with some fantastic photos of the local birdlife like these cute cygnets searching for food in the water. Photo – Friends of Mary Carroll Wetlands.

-  **19 Saturday 6.30pm–8.30pm**
Night walk in search of bats and other nocturnal animals in the **Roe 8 corridor**, Cockburn. Meet at the Wetlands Centre, BYO torch. Free to [register](#).
-  **20 Sunday 9am–11am**
Nature walk with the Wildflower Society WA and Stop the Banksia Road Sand Mines campaign through the **Banksia Road Conservation Reserve**, Wellard. Meet at Jolley Rd.
-  **20 Sunday 7am–11am**
Eco treks at **Mary Carroll Wetland**, Gosnells. Enjoy a guided walk and observe the feeding, mating and nesting of native birds in the area. Register council@gosnells.wa.gov.au or call 9397 3000.
-  **24 Thursday 8am**
Birdwalk Lake Claremont, Swanbourne. Meet at the Lake Claremont Golf Club car park off Davies Rd. **BirdLife**
-  **27 Sunday 9am–12 noon**
Planting along the **Southern Canning Rivers**, Gosnells. Meet at the north-eastern end of Windsor Dr. **AGLG**

Registration/contact details

BirdLife WA All walks are free, no need to book. Call 9383 7749 Monday–Friday 9.30am–12.30pm.

AGLG Armadale Gosnells Landcare Group. Look for the AGLG sign at the meeting point, BYO gloves and dress for the weather. Morning tea provided. Call 0413 883 565 or check [Facebook](#).

Activities Key



Hands on – bushland and wetland management activities.



Walks and tours – look, listen and enjoy guided walks and excursions.



Skills development activities – talks, presentations, training courses and workshops.




Meetings and events – group meetings, expos, festivals and conferences.

November


2 Saturday 8am–12 noon

 Spring into Armadale **walk Connell Avenue Reserve**. Meet at the northern end of Cockram Rd, Kelmscott. [Details](#).

2 Saturday 7.30am

 **Birdwalk Ashfield Flats**, Bassendean. Meet at the car park at the southern end of West Rd. [BirdLife](#)


2 Saturday 9am–11am

 **Weed or native grasses workshop** with Una Bell on common grasses. **Walk** through **Morgan John Morgan Reserve**, Glen Forrest. Free to [register](#).


2 Saturday 9am–12 noon

 **Planting** along the **Southern River**, Gosnells. Meet at the end of Chilcott Gardens, off Fremantle Rd. [AGLG](#)

10 Sunday 9am–12 noon

 **Botanical walk** and **talk** through **Connell Avenue Bushland**, Kelmscott. Meet at the corner of Priess Park Rd and Connell Ave. [AGLG](#)

23 Saturday 11am–12.30pm

 Spring into Armadale **walk Bungendore Park** and **Armadale Settlers' Common**, Bedfordale. Meet at the Bedfordale Bush Markets, Admiral Rd. [Details](#).

26 Tuesday 6pm–8pm

 **Flora and fauna talk** by local research students at Piney Lakes, Winthrop. Meet at **Piney Lakes** Environmental Education Centre, Corner Leach Hwy and Murdoch Dr. Contact Kellie Fowler for free registration 9367 0790 kellie.fowler@melville.wa.gov.au

28 Thursday 7.30am

 **Birdwalk Ascot Waters**, Ascot. Meet in the car park at the end of Tidewater Way. [BirdLife](#)

December

5 Thursday 7.30am

 **Birdwalk Point Peron**, Rockingham. Meet in the furthest car park at Point Peron. [BirdLife](#)

7 Saturday 7.30am

 **Birdwalk Carine Open Space**, Carine. Meet in the car park off Beach Rd. [BirdLife](#)

14 Saturday 7.30am

 **Birdwalk Alfred Cove**, Melville. Meet in the car park in Troy Park next to the Oval, off Burke Dr, Attadale. [BirdLife](#)

Please send us your January, February, March events by **Tuesday 3 December 2019**.

Wettenhall Environment Trust small environmental grant scheme funds research, education and conservation projects. [Applications open 1 October and 2 December](#).

Peel-Harvey Catchment Council Community Environment Grants available for eligible on-ground Landcare and Bushcare works. [Applications close 7 October](#).

Communities Environment Program investing \$150,000 per federal electorate (\$2,500–20,000) for on-ground environmental projects in 2019–20. [Applications](#) by invitation by your local MP **close 10 October**.

Aurizon Community Giving Fund up to \$20,000 for environmental projects in Geraldton, Perth, Kalgoorlie and Esperance. [Applications close 25 October](#).

Australian Geographic Society sponsors Australian adventurers, scientific and environmental research and community projects up to \$10,000. [Applications close 30 November](#).

IMPACT philanthropy program connects philanthropist and not-for-profits. [Applications close 6 December](#).

Local government community grants

These local governments provide small grants to their communities which fund environmental groups' management and restoration projects. Eligibility varies. [Kwinana close 9 October](#), [Wanneroo close 18 October](#), [Cockburn close 31 October](#), [Swan close 31 October](#), [Rockingham round three close 22 November](#), [Melville open all year](#).



Wetlands Weekender 11-13 October, see Highlights. Photo – Peel-Harvey Catchment Council.

Highlights

6 July–4 November 10am–5pm

Art Gallery WA, **The Botanical: Beauty and Peril**. [Art exhibition](#) drawing from the Janet Holmes à Court and AGWA Collections, which explores the beauty of the botanical world and the threats that disturb it.



Eva Fernandez Anigozanthos flavidus 2011 2011. Archival inkjet print, 100 x 150cm. On loan from the Janet Holmes à Court Collection.

25 August–12 October

Midland Junction Arts Centre, [Wildflower State](#) and [Lush Valley](#) art exhibitions presents a selection of artists working on the State's unique flora, and the floral bounty of the City of Swan, respectively.

13 September–27 October Tue–Fri 10am–5pm and Sat–Sun 11am–3pm

Mundaring Arts Centre, [Peregrinations of a Citizen Botanist](#). Interactive exhibition that charts the journey of 18th Century French botanist, Jacques-Julien Houtou de Labillardière and examines Australia's current relationship with the environment and presents an alternative view of history. Also [Seed, Pods and Pollen](#) is presenting a collection of plant and pollinator inspired artworks created by both children and adults from recent workshops across both Mundaring and Midland Junction Arts Centres.

Month of October

Outdoors October check out [listed events](#) or register yours.

30 September – 11 October

Earth Assist Recreate Waste Recycled Art Competition exhibition of winning student entries, Keiran McNamara Conservation Science Centre, DBCA, 17 Dick Perry Avenue Kensington.

1 October – 16 November

Nearer to Nature [Sunlit Spring](#) school holiday program and weekend activities.

1-4 October

2019 WA State NRM and Coastal Conference [Our Coast, Our Land – Striving Together](#) Edith Cowan University, Joondalup.



8–10 October

Private Land Conservation Conference 2019: [Rising to the Challenge](#), Adelaide.

11–13 October

Wetlands Weekender mini festival that celebrates the start of the migratory bird season and World Migratory Bird Day. Check out the [program](#).

19–20 October

WA Marine Debris Event Day check [Tangaroa Blue website](#).

Saturdays 20 October – 17 November

Nyoongar Language Beginners 5 week course at the Walyalup Aboriginal Cultural Centre, [bookings](#) \$75.

20–24 October

International River Symposium, Brisbane.

1 November–22 December

Mundaring Arts Centre, Things with Wings. [Art exhibition](#) showcasing school children's work from across the eastern region exploring this year's theme 'Things with Wings'. Focusing on local native birds, bats and insects as well as the role of pollinators in ecosystems.

10–17 November

Wild Pollinator Count gives you the [opportunity](#) to count wild pollinators in your local environment to contribute to their database.

24–29 November 2019

Ecological Society of Australia Annual Conference, Launceston.

2 December

EnviroCHI: Advancing Computer Human Interaction for Environmental Science and Education [workshop](#), Fremantle.

3–5 December 2019

Australasian Wildlife Management Society Conference [Wildlife Management in Remote Landscapes](#), Darwin.

2020

21–23 January

Catchments, Corridors and Coasts [workshop](#) a snapshot of environmental education in WA.

New publications

A Jewel in the Crown of a Global Biodiversity Hotspot Hans Lambers (Editor). Kwongan Foundation and the Western Australian Naturalists' Club Inc, 2019. \$89.95.

South-western Australia is a region of exquisite landscapes and unique plants, animals and fungi. It is one of the World's 'Biodiversity Hotspots', based on its highly diverse, endemic and threatened flora. Greater Perth is particularly well-known for its species richness and endemism, home to numerous threatened and priority flora and ecological communities. A Jewel in the Crown of a Global Biodiversity Hotspot has been assembled using current research and understanding about the geology, hydrology, soils, flora, fauna, fungi, archaeology,

history and other aspects of the proposed Yule Brook Regional Park. Available in selected bookshops.

Western Australian Plant Names and Their Meanings F.A. Sharr A.S. George. Four Gables Press, 2019. \$40.

Sharr's popular book explaining the scientific names of all native and naturalised plants in the State has been out of print for some years. This third edition brings it up to date with the names of some 2,000 plants that have been added to the State's flora since the previous 1996 edition. A new section includes the names of subspecies and varieties. [Orders](#).

Website watch

Prescribed Burning Conference 2019 [presentations](#) are now available for this conference hosted by UWA.

[Kwongan Matters Foundation](#) provides a compelling [newsletter](#) focused around the conservation of South West WA's natural heritage.

Healthy Wildlife Healthy Lives [website](#) learn how to safely interact with wildlife and why it matters.

Mid-term review of performance of the Forest Management Plan 2014–2023 [assesses](#) which key performance indicator targets were achieved and provides recommendations and commentary from the Conservation and Parks Commission.

Recent research

Anderson H, Valentine LE, Hardy GE and Fleming PA (2019) Relationship between the common brushtail possum (*Trichosurus vulpecula*) and tuart (*Eucalyptus gomphocephala*) tree decline in Western Australia [Australian Mammalogy](#) online early.

Rowley JLL, Callaghan CT, Cutajar T, Portway C, Potter K, Mohony S, Trembath DF, Flemons P, Woods A (2019) FrogID: Citizen science provide validated biodiversity data on frogs of [Australia Herpetological Conservation and Biology](#) 14(1): 155–170.

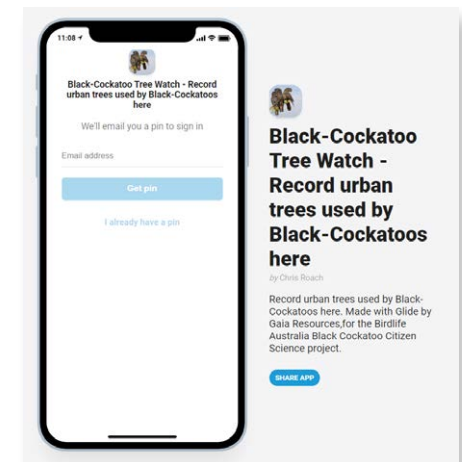
Ward BG, Bragg TB, Hayes BA (2018) Effects of chaining and burning in *Acacia ramulosa* shrublands of the Peron Peninsula, Shark Bay, Western Australia [International Journal of Wildland Fire](#) 27(9) 623-635

Bain K, Wayne AF, Bencini R (2019) Spatial ecology of the quokka (*Setonix brachyurus*) in the southern forests of Western Australia: implications for the maintenance, or restoration, of functional metapopulations [Australian Mammalogy](#) online early.



Apps

Black cockatoo tree watch [app](#) allows users to record trees that are regularly used by black cockatoos in their neighbourhood. The data recorded over the coming 12 months will be collated by BirdLife and used to inform land management decisions and protect important habitat across the Perth-Peel region. For more information or assistance contact Vicki Stokes 0409 033 126, [email](#).





Stylidium imbricatum with pollinator
Megachile bee. Photo – Robert Davis.

Triggerplants *by Julia Cullity*

There are over 300 triggerplant species in the genus *Stylidium*. These plants have a fascinating pollination system with a touch-sensitive column or trigger that transfers pollen to and from insects as they land on the flowers to [gather nectar](#). Videos show the [trigger action](#) as insects land and [retraction](#) as the trigger slowly resets some minutes later to wait for their next pollinator. Triggerplant pollination has been clocked at 15–30 milliseconds making it one of the fastest plant movements known.

The bulk of triggerplants are endemic to Australia and our south-west region is home to the greatest diversity with more than 150 species, at least 50 of which are found in the area immediately around Perth. Many species of triggerplants are threatened or poorly known. They come in all shapes, sizes and colours with many growing and flowering together. Each species targets different places on different insects and can retrieve pollen from the correct spot on each. The same insect might visit multiple species of triggerplants, carry pollen on different parts of their bodies and not get them mixed up.

Keep an eye out for triggerplants in their many growth forms: tiny annuals, climbers, stilt plants, dwarf shrubs, cushion plants or running carpets. You might be surprised by how much variety you see.



Stylidium eriopodum.
Photo – Mark Brundrett.