

Issue 103

Spring 2017

*Time of Djilba and
Kambarang in the
Noongar calendar.*

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Working together to protect Bunbury's urban bushland

By Pip Marshall



The proposed Preston River to Ocean Regional Park covers 893ha of continuous public bushland reserves on Bunbury's doorstep. South West Catchments Council (SWCC) and the City of Bunbury have been working together with the community to protect and enhance the environmental, cultural and social values of the park for the benefit of the environment and the Bunbury community.

Stretching from the Preston River near Bunbury Airport in the east, to the Indian Ocean at Maidens Reserve on the coast, this area is unique because it contains four of the five vegetated landforms of the Swan Coastal Plain (Quindalup/Spearwood/Bassendean Dunes and Pinjarra Plain) in an almost unbroken corridor, within an urban area and regional centre.

Visitors can experience coastal dunes, jarrah, marri, banksia and tuart woodlands, paperbark swamps, sedgelands and herblands in claypans and marvel at some of the 600 plants and 180 animal species that call this bushland home. The park is also highly significant to the Noongar people. It forms part of a number of Dreaming stories and is part of a historical travel and hunting route and contains some very special cultural sites. It also provides important areas for passive recreation, education, cultural heritage and conservation research.

In June this year, SWCC, in partnership with the City of Bunbury, completed the four-year [Preston River to Ocean Project](#).

The \$1.3 million project was jointly funded by the Australian Government's National Landcare Programme and City of Bunbury.

The project's achievements are impressive as it addressed key threats including weeds, pests, coastal erosion, illegal access, rubbish dumping and dieback.

The proposed Preston River to Ocean Regional Park is a community asset for the future and together SWCC, the City of Bunbury and the Bunbury community have been working together to protect it. Photo – SWCC.

In that four-year period, the project resulted in the delivery of, but not limited to:

- 234ha of weed treatment
- 6.1km of new fencing and 1.4km repaired
- 14 gates installed or repaired, for illegal vehicle access control
- fox and rabbit control
- dieback management of over 47ha
- signage installation
- rubbish clean-ups
- 33,000 seedlings were planted to rehabilitate 2.9ha of bushland and coastal areas
- and together with the Parks and Wildlife Service at the Department of Biodiversity, Conservation and Attractions (DBCA), several new areas of nationally threatened ecological communities have been identified and documented.

This has all been achieved with the help of the local community including school students, Noongar people, community groups and other dedicated volunteers. 1,748 people have been engaged in the project through 55 events over the past four years

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Sharing knowledge about banksia woodlands *By Julia Cullity*

Urban Nature was pleased to be part of the organising committee for the Banksia Woodland Management Workshop which brought together close to 250 people to hear about recent research and management programs focusing on protecting the values of banksia woodland and dealing with processes that threaten them. An ambitious program packed in 21 speakers on topics of floristic diversity, legislative status, restoration, fire ecology, weed management, dieback, groundwater, genetics and fauna and included case studies from Parks and Wildlife Service and Botanic Gardens and Parks Authority at DBCA, university research, local government, consultants and community groups.

Following on from the workshop was an opportunity to tour Parks and Wildlife Service's six year old restoration site in Oakford where 70 people saw the results from the restoration techniques of topsoil transfer, planting and direct seeding.

For those who missed out or would like to refresh their memories, all presentations were recorded and can be watched on our [YouTube channel](#).



Close to 250 people attended to learn more about the latest research and management programs addressing the conservation of banksia woodland. It was a great opportunity to meet and network with other people from State and local government, industry, universities and the community Photo – Karen Clarke.

Urban Nature Update *By Julia Cullity*

This year we have been working to encourage greater community involvement at selected bushlands in and beyond Perth. From Maralla Road bushland near Ellenbrook to our north, to Leda Nature Reserve and bushland in Wellard, Penguin Island off the coast at Shoalwater, Austin Bay on the Peel Estuary at South Yunderup, Nine Mile Lake Nature Reserve at West Coolup and Bandicoot Brook reserve further south near Waroona, we are looking for enthusiastic volunteers. If you are interested in helping to care for any of these places we would love to hear from you. Drop us a line at [Urban Nature](#) or give us a call. Our phone numbers are shown below.



This issue of *Bushland News* sees us farewell Bec Ong as she prepares for the birth of her second child. Good luck and congratulations Bec, we look forward to meeting the baby and working with you again when you are ready to come back.

Coolup LCDC has gained funding from Peel Harvey Catchment Council for weed management at Bandicoot Brook reserve, straddling the boundaries of Murray and Waroona Shires. This 75ha reserve is entirely made up of four separate threatened ecological communities, has great values and needs a helping hand. Urban Nature is working with year 9 BushRangers from Waroona District High School who have adopted the area as their study site. Here the students are exploring and documenting natural values. They are working towards setting up a self-guided tour for the reserve and will soon be installing remote cameras to capture images of some of the animals that call the reserve home.

Contacts

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Parks and Wildlife Service

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 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 www.dpaw.wa.gov.au/bushlandnews

Summer Bushland News

Summer *Bushland News* contributions should be sent to [Urban Nature](#) by **27 November 2017**. *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.

Planning update

Work is continuing on the Strategic Assessment of the Perth and Peel region, which was released in December 2015 as the draft Green Growth Plan. A major focus of the work being undertaken involves ensuring that the strategic assessment maximises the benefits of METRONET on the Perth and Peel regions. Public consultation on a revised draft is planned for the first half of 2018. In the interim, the Departments of the Premier and Cabinet, Planning, Lands and Heritage, DBCA, and other agencies are continuing to consult and engage with interested groups.

Take part in the *Recent Ecological Change in Australia* survey

By Suzanne Prober



Eucalyptus viminalis death at Berridale in NSW, January 2017.
Photo – Suzanne Prober.

Over the past century, average land surface temperatures have risen by almost 1°C across the Australian continent. Models suggest this may have already had significant impacts on Australia's ecosystems and biodiversity in some areas, but these impacts have not been systematically investigated.

CSIRO Land and Water and the Department of the Environment and Energy are undertaking an exciting project to collect stories and anecdotes that will help build a national picture of ecological change (or lack there-of) over the past 10–20 years or more. We are looking for people with strong links to Australian environments (e.g. farmers, natural resource managers, ecologists, naturalists) to share their stories for an area they know well, including perceptions of the presence or absence of different types of recent ecological change.

To participate, you would need to be able to select a natural area (e.g. your local region or farm, a Nature Reserve, urban bushland) that you have been familiar with for at least the last 10 years. Note that we are interested both in areas where change has been observed and where change has not been observed. The [survey](#) will take about 30 minutes.

Contact: Suzanne Prober, CSIRO, by [email](#) or [web](#).

Calling on animal observers

There is still time to contribute to three citizen science fauna surveys this spring and help our understanding of the distribution and numbers of these much-loved WA mammals.

Western ringtail possum tally

Western ringtail possums are critically endangered and need your help. Grab a friend or the whole family and have fun counting possums in your backyard, local park or school in the Geographe and Margaret River regions. The survey period started 21 September and closes 21 October 2017. Survey results will be entered into the DBCA's state wide fauna database and they will be shared with the community in November. [Register](#) and you will receive an email with a link to download the data recording sheet, or contact GeoCatch on 97810111 or by [email](#). All participants will go into the draw to win a possum box!

2017 Spring Quenda Count

From September to the end of November 2017, quenda observers are asked to pick a survey site (often a suburban house block) and record the number of quenda seen over two or more days within one week. This popular annual citizen science event, run by WWF-Australia and DBCA, attracts more than 120 participants each year, and quenda have been counted in over 300 sites. To take part, [email](#) and receive a data sheet and detailed instructions.



A quenda caught on camera at Kings Park. The best time to catch sight of a quenda is dawn and dusk although you might get lucky and spot one during the day (see page 9). In contrast the western ringtail possum is best spotted while it's foraging in trees at night. And of course no need to keep watch because the remote cameras will record who is visiting your nectar feeder. Photo – Bernard Katthagen.

Nectar feeder hosts for rainbow lorikeets

BirdLife is searching for 10 securely fenced sites (e.g. backyards) within 10km of ECU Joondalup or Carousel Shopping Centre able to host a nectar feeder and camera trap this summer. The feeders will have standard sugar/water or honey/water mixes and the camera traps will be used to see what birds attend the feeders at different distances from major rainbow lorikeet roosts. The nectar feeder trial is part of Rainbow Roost, a longer project to see if nectar feeders may be used for future chemical sterilisation of rainbow lorikeets. [Email](#) to nominate a site.

Plant discovery wonderland

By Stephen D. Hopper and Paul Gioia

The Southwest Australian Floristic Region (SWAFR) continues to rank amongst the top places on Earth where new plant species continue to be discovered. How could part of a developed nation like Australia have so many plants undescribed by science?

It comes down to history – of the landscapes of the SWAFR, and of the development of the science and practice of naming and classifying plants (taxonomy). The landscapes of the SWAFR include many OCBILs (old, climatically-buffered, infertile landscapes) that have provided conditions suitable for the persistence of plant species often in very small areas for millions of years. Such landscapes are mainly uplands, including the well known Stirling Range and Mt Barren peaks of the Fitzgerald River National Park, as well as more subdued hills such as lateritic mesas (e.g. Mt Lesueur), granite outcrops, banded ironstones, coastal headlands, perched swamps and even high sandplains. Some salt lake systems also afford exceptionally old refugia for plants as well.

As evolution is explored using DNA techniques in different plant groups, it is becoming clear that extinction rates have been reduced, and diversification into new species is common and ongoing. Hence there are many rare species dotted throughout the OCBILs of the SWAFR and

Hydrocotyle phoenix (fire pennywort) was discovered by Rob Davis in late 2015 in Northcliffe after the earlier summer fires of that year. The new species is a fire-responder, and while it comes up en masse, it has a highly restricted distribution. The Hydrocotyle then disappears completely the following year — waiting for the next fire event. Photo – Rob Davis.

These new lines of biological evidence helped resolve differences of opinion among herbarium botanists about whether different forms were reproductively-isolated species or merely varieties.

these constitute the majority of new species being discovered in modern times.

Pioneer taxonomists of the SWAFR such as Robert Brown and George Bentham from England and Ferdinand von Mueller, Victoria's first colonial botanist, described the majority of the 3600 species recorded in the SWAFR by 1860, a number which was still regarded as accurate a century later. The description of species over this period primarily involved study of herbarium specimens and the intuitive search for gaps in the morphological features of plants. If specimens with distinctive features were

ascertained, they were named as species. If there were transitional specimens, botanists would lump the distinct forms into one species, sometimes naming the forms as varieties of the species, sometimes not.

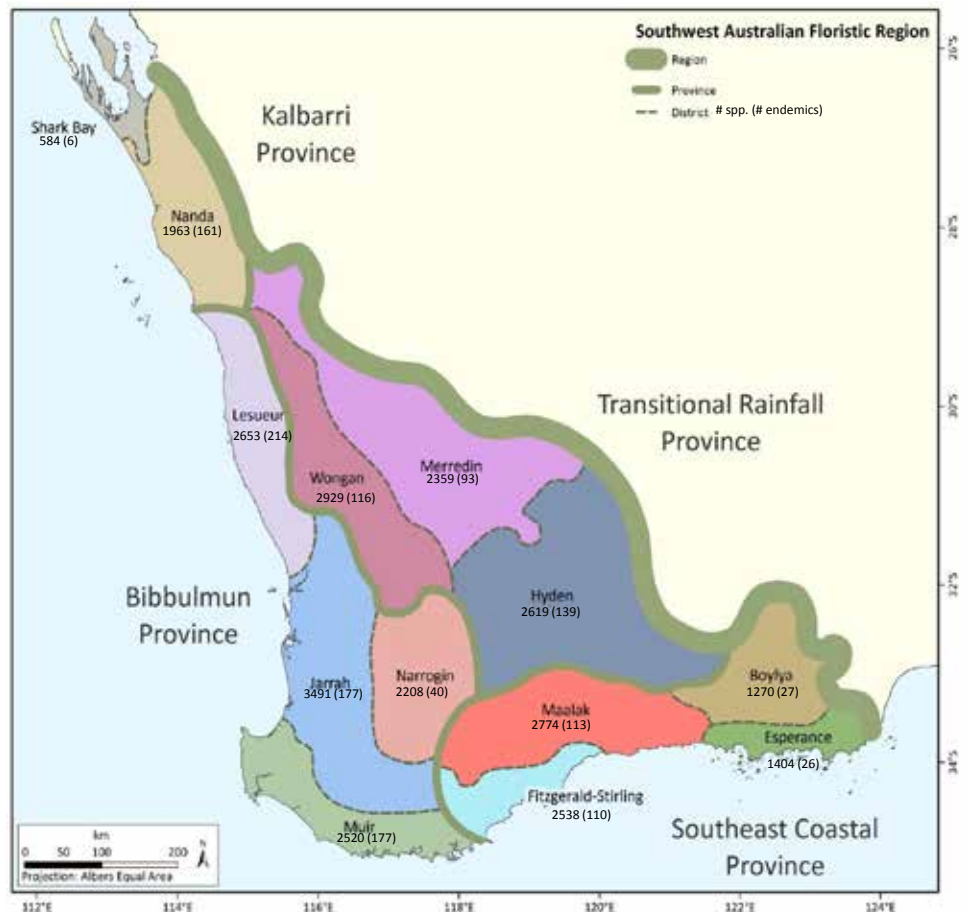
Charles Darwin in the mid 1800s added more scientific rigour to this process by demonstrating that it was possible to observe reproductive interactions in the wild and grow plants in the glasshouse to experiment with their reproductive interactions. Botanists could test, by experimental pollination, whether different forms each bred true, and whether or not they produced sterile hybrids

when cross-pollinated. These new lines of biological evidence helped resolve differences of opinion among herbarium botanists about whether different forms were reproductively-isolated species or merely varieties.

It took more than a century for Darwin's approach to take hold in taxonomic studies of SWAFR plants. This was accelerated when DNA analyses provided a rapid means of documenting genetic relationships and reproductive interactions. It has been found that many species regarded as variable by traditional herbarium studies have turned out to be rich in undescribed Darwinian biological species.

In a recently published paper, we have developed a new phytogeographic map of the SWAFR (Fig. 1) based on an exceptional decade of collection and discovery of new species. We found that there had been an increase of 33 per cent in plant collections in the WA Herbarium and 10 per cent new species over the past decade. We examined areas of species richness and endemism, and developed the new map of plant districts and provinces for the SWAFR. The updated SWAFR has 8379 native vascular plants (82 per cent species and 18 per cent subspecies), of which 47 per cent are endemic and 49 per cent have been described since 1970. We found that Perth ranked amongst the most floristically diverse cities on Earth, alongside Cape Town, Sydney and Rio de Janeiro.

Further reading: Gioia P and Hopper SD (2017) A new phytogeographic map for the



Gioia and Hopper's 2017 map illustrating the new botanical districts and provinces recognised within the Southwest Australian Floristic Region. Numbers for each district are of total taxa (species + subspecies) and number of endemics in brackets.

Southwest Australian Floristic Region after an exceptional decade of collection and discovery. [Botanical Journal of the Linnean Society](#) 184, 1–15.

Contact: Stephen D. Hopper, UWA Albany by [email](#).

Paul Gioia, DBCA, by [email](#).

Working together to protect Bunbury's urban bushland

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including planting days, wildflower walks, cultural education events, the ever-popular night stalks, bird watching, dieback workshops, weed control days, rubbish clean-ups and educational activities with schools.

In recognition of the park's cultural and heritage significance, local Noongar people have been actively involved throughout the project to ensure cultural values are respected and included in management.

The success of the project is a tribute to the dedication of the project partners and the Bunbury community. As a result, the park has been left in a better condition as interim management returns to the landholders. The proposed Preston River to Ocean Regional Park is a wonderful asset for the South West Region and we look forward to its formalisation.

Contact: Pip Marshall, SWCC, 9781 3105 or [email](#).




The park is culturally important to local Noongar people. Photo – SWCC.

what's on


Opportunities for you to take part. Visitors always welcome but please confirm activities with the 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 or [email](#).


Saturdays 8am–9am

 **Guided walks** with Friends of **Koondoola**. Second Saturday of each month. Meet Gate 2, corner Koondoola and Burbridge Ave, Alexander Heights.


Saturdays 8am–9am

 **Guided walks** with Friends of **Lake Gwelup**. Third Saturday of each month. Meet at Scout Hall Carpark (near the tennis courts), Huntriss Rd, Gwelup.


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.

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.


Saturdays 8.00am–10.00am

 **Bushcare activities** with Swan Estuary Reserves Action Group at **Alfred Cove** Nature Reserve. Fourth Saturday of each month. Contact Cathie 9339 2439 or [email](#).

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 Alridge Rd, Booragoon. Contact Mary-Ann 9316 9716 or [email](#).


Saturdays 9am

 **Bushcare activities** with Swan Estuary Reserves Action Group at **Pelican Point**, Crawley. First Saturday of each month. Contact Cathie 9339 2439 or [email](#).

Saturdays 9am

 **Bushcare activities** with Friends of **Brixton Street** Wetlands. Third Saturday of each month. Meet Alton St, Kenwick. Contact Regina 9459 2964 or [email](#).


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. Call Jan 0409 299 861 or [email](#).


Saturdays, Sundays 9am–12 noon

 **Koala maintenance** at **Yanchep National Park**. Call Ciara 9303 7771.


Sundays 8am–9am

 **Guided walks** with Friends of **Marangaroo**. Fourth Sunday of each month. Meet at Gate 3, Decourcy Wy, Marangaroo.


Sundays 8am–10am

 **Bushcare activities** every Sunday with Friends of **Shenton Park** Bushland. Contact Dani 9381 3470 or [email](#).

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 or [email](#).


Sundays 8.30am–9.30am

 **Guided walks** followed by meeting with Friends of **Mirrabooka**. First Sunday of each month. Call Jan 9344 2872.


Sundays 9am–11am

 Friends of **Lake Claremont** busy bee and morning tea, second Sunday of every month. Meet at the south end of Strickland St, Swanbourne. Gloves and tools provided. Call 0416 614 696 or visit [web](#).

Sundays 9am–11am

 **Bushcare activities** with **Cottesloe** Coastcare. First Sunday of each month. Contact Robyn 9384 7668, [email](#) or visit [web](#).


Sundays 9am–12 noon

 **Bushcare activities** with the Friends of the **Spectacles** (Kwinana). Third Sunday of each month. Contact Lynda 0419 983 956 or [email](#).

Sundays 9am

 **Bushcare activities** with the Friends of **Samphire Cove** Nature Reserve, Halls Head. Last Sunday of each month. Contact Barry by [email](#) or [web](#).

Sundays 9.45am–12 noon

 **Bushcare activities** with the Friends of **Piesse Brook**. Third Sunday of each month. Phone Gerry 9293 2517 or [email](#) Bridget.

Sundays 1pm–4pm

 WA Gould League's **Herdsmen Lake Wildlife Centre** holds **birdwalks, centre viewing and scooping**. First Sunday of each month. \$2 adults, \$1 kids & seniors, \$5 family. Corner Selby St and Flynn St Wembley. Contact 9387 6079 or [email](#).


Sundays

 **Wilson Wetlands** Action Group undertakes regular work mornings throughout the year on Sunday mornings. Contact 9258 7301 or [email](#).


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. Phone 0413 282 515.


Mondays 9am–11am

 **Litter collection** with Swan Estuary Reserves Action Group at **Milyu Nature Reserve, South Perth**. Second Monday of each month. Contact Cathie 93392439 or [email](#).

Mondays, Wednesdays, Fridays 9am–12 noon

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


Tuesdays 7am–9am

 **Bushcare activities** with Swan Estuary Reserves Action Group at **Alfred Cove** Nature Reserve each Tuesday. Contact Cathie 9339 2439 or [email](#).

Tuesdays and Thursdays, 8am–10am

 **Coastcare activities** with **Stirling** Natural Environment CoastCare (SNEC). Contact Sheldon 0488 190 651, Rae 0419 191 710 or visit [web](#).

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 or [email](#).


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. Call Mike 0438 710 527.


Thursdays 8am–9am

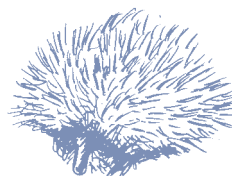
 **Bushcare activities** every Thursday with **Byford** Enviro-Link. Call Kristy 9526 0199.

Thursdays 9am–11am

 **Bushcare activities** on the fourth Thursday of each month at **Baldvins** Children's Forest. [Email](#) or visit [web](#).


Thursdays, Saturdays and Sundays 9am

 **Morning walks** with Friends of **Bold Park** Bushland Volunteer Guides. Various dates. Contact 9480 3996, [email](#) or visit [web](#).



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. Visit [web](#), [email](#) or 9291 3900.

 **Thursdays or Fridays 9am–4pm Wetland, bushcare and nursery activities** with **Cockburn Wetlands Centre**. Contact Denise 0412 081 540 or [email](#).

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. Call Pawel 0410 305 034 or [Facebook](#).


Fridays 8am

 **Bushcare activities** at **Piney Lakes**. Volunteers need a site induction. [Email](#).


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. Also art and photography, propagation, excursions, open gardens, library and herbarium. Contact Cathy 0404 959 654 or [email](#).

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. Visit [web](#), [email](#) or 9291 3900.

 **Birdlife Australia** hold regular talks and excursions each month. [View](#) their calendar.

 **WA Naturalists** hold regular excursions, photo groups and campouts each month. [View](#) their calendar for the activities of the four branches.


 **Wildflower Society of WA** holds regular talks. [View](#) their calendar.

October


7 Saturday 9am–11am

 **Guided walk Mosman Park Bushland** meet at the Vlamingh Memorial, 2 Curtin Ave, Cottesloe.

7 Saturday 9.45am–12.30pm


 **Flora and Fauna survey Good Shepard Primary School** 15 Arbutnot Street, Kelmscott. Darling Ranges Naturalists have committed to surveying this bush block in each of the Noongar six seasons. Join the first survey and be greeted with home-made scones. [Register](#).

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.

Please send us your regional report (200 words) and a photo by Monday 27 November 2017. Text may be edited in response to volume of submitted reports.

Sedge rescue by Canning River Regional Park Volunteers July 3, 2017

by Pam Agar

Canning River Regional Park Volunteers (CRRPV) recently had the opportunity to rescue a number of sedges from a proposed development site in Cannington.

The City of Canning arranged permission to access the site and gave the support of their Natural Areas Management Team. Some of the staff from the South East Regional Centre for Urban Landcare also helped, along with 18 members of CRRPV. Six trailer loads (approx. 300 plants) were collected, and planted back into one of CRRPV's project sites, Litoria Flats, which has similar conditions.

Chaetanthus aristatus sedges, both small seedlings and larger clumps, were the predominant species collected, together with small numbers of *Chaetanthus tenellus* and *Drosera glanduligera*. The smaller plants were collected by placing an open-ended can over the seedling and pressing down to cover the roots, disturbing them as little as possible. The can was then eased out of the ground.



Removing small plants using open-ended cans. Photo – Pam Agar.

It is hoped that wetter than usual conditions over the past months will help the plants re-establish well and complement previous transplanting, and the regenerating species which have developed since continued weed removal has allowed the natural seed-bank to flourish.

A shared lunch, provided by CRRPV, was appreciated by everyone at the end of the morning.

Contact: Pam Agar, CRRPV, 9457 2292 or by [email](mailto:pam@pamagar.com.au).



First load of sedges planted back into the Litoria Flats site. Photo – Pam Agar.

Two awards for Anne Bellman



Urban Nature congratulates Anne Bellman for receiving the 2017 Western Australian Wildflower Society Award and Parks and Wildlife 2016 Volunteer Outstanding Service Award. It is a great pleasure to spend time in the bush with Anne and enjoy her knowledge of the flora, optimism and purpose and tireless participation in bushland management activities. Anne contributes enormously to the protection and management of bushland and has leadership roles volunteering with a number of groups and programs. Anne has been part of the Wildflower Society's Bushland Survey Program since it began in 1988 and volunteers every week at the WA Herbarium. She is active with the Friends of Paganoni, Baldvis Children's Forest and the Friends of Penguin Island. Anne assisted in setting up the Rockingham Lakes Environment Centre and Regional Herbariums at Jurien, Geraldton, Rockingham and the Wheatbelt and she is a long-time member of the WA Naturalists Club. Thankyou Anne, for sharing your love and passion for bushland with so many. Photo – Leonie Stubbs.

Quendas at Lake Goollelal by Gary Tate



Whilst on one of my regular bicycle rides through Yellagonga Regional Park I sighted this young quenda (southern brown bandicoot) feeding alongside the shared-use path that circumnavigates Lake Goollelal. These beautiful local marsupials are not very common in our metropolitan suburbs due to loss of habitat, predation from foxes, dogs and cats. They can also ingest snail pellets, be hit by vehicles and can drown in swimming pools. Quenda can be mistaken for a rat, but they have a much longer snout than rats!

To see and be able to observe a young quenda actively feeding during the day (they are diurnal) is an extremely rare treat. I took so many photographs and video I flattened my camera battery! After a quick dash home to get another battery, and my wife, we drove back to observe this amazing animal for over half an hour. Other park users were as excited as we were to see this endemic species in our local park.

Recently I returned and spent two hours looking for quenda on the eastern side of Lake Goollelal and sighted three. One I believe to be a male, missing his tail, was foraging in amongst the Friends of

A young quenda spotted at Lake Goollelal eating a skink. Quendas can be confused with rats but the long snout is a good distinguishing feature. The species has all but disappeared from other Australian cities but can still be seen throughout the Perth and Peel metropolitan areas. If you know of areas where quenda visit, the Spring Quenda Count (see page 3) is running again this year and looking for people to take part. Photo – Gary Tate.

Yellagonga revegetated area. In this area there was a red and green kangaroo paw (*Anigozanthos manglesii*) already flowering – 6th of July! Further along the track there were two quenda feeding, one of which was a very small juvenile. I have previously, over a couple of days in 2016, sighted a male missing his tail on the western side of Lake Goollelal. I was fortunate to be able to take numerous photos and video of this fellow from which I have made a short [YouTube video](#).

The City of Joondalup has recently installed additional “Keep dogs on leads” signage at most of the park entries which will assist in protecting these fascinating local marsupials.

Contact: Gary Tate, Friends of Yellagonga Regional Park, by [email](#).

Funding opportunities

Peel Harvey Catchment Council Small Local Action Grants. \$100–\$1,000. [Applications close 1 December 2017.](#)

Northern Agricultural Catchments Council Biodiversity Community Grants \$1000–\$10,000 for on-ground works. [Applications opened 27 September 2017.](#)

Youth Activities Grants funds projects up to \$5000 that encourage young people 12–25 in innovative and challenging activities. [Applications close 9 December 2017.](#)

Albany Community Foundation funds local projects that promote volunteerism and community spirit.

Wettenhall Environment Trust fund research and education projects in biodiversity conservation [applications opened 19 September 2017.](#)

Local Government community grants

These local governments provide small grants to their communities which can fund environmental groups’ management and restoration projects. Eligibility varies. [Canning closes 1 November](#), [Cockburn closes 31 October](#), [Mosman Park closes 12 October](#), [Rockingham closes 24 November](#), [Swan closes October](#), [Wanneroo closes October.](#)

Australian Geographic Society sponsors Australian adventurers, scientific and environmental research and community projects up to \$10,000. [Applications close 30 November 2017.](#)

Lotterywest Heritage and conservation [grants](#) are **open year-round.**

IMPACT Philanthropy Application Program distributes funds from charitable trusts and endowments to charitable organisations in all sectors including conservation and environment. \$200,000 maximum. [Applications close 8 December 2017.](#)

Healthy Wildlife and Bush Skills 4 Youth Workshops By the EMRC

Waterbirds, possums, quenda, bobtails and other reptiles have been the stars of a series of workshops that have drawn more than 500 participants including over 200 children, to various locations throughout Perth’s Eastern Region between early March and the end of July this year.

A successful partnership between two Eastern Metropolitan Regional Council (EMRC) programs, [Healthy Wildlife Healthy Lives](#) and

[Bush Skills 4 Youth](#), resulted in the delivery of 12 workshops. The workshops focused on information about how people can interact with native animals in ways that are healthy for both the animals, the people and the environment. Topics included animal ecology, habitat, feeding and parasitic diseases.

For adults, presentations by scientists and wildlife carers covered these topics in detail and take home information sheets were

provided to reinforce messages. Children learnt about interacting with wildlife through stories and games. Workshops at Native Animal Rescue in Malaga and Kanyana Wildlife Rehabilitation Centre in Lesmurdie proved to be popular as participants were able to tour the rehabilitation facilities and meet some of the animals up close.

Contact: Cathy Levett, EMRC, on 9424 2244.

Brixton Street Field Herbarium: A new flora identification tool for managers of seasonal clay-based wetlands

By Kate Brown and Grazyna Paczkowska

A flora identification tool for managers of seasonal clay-based wetlands covering 250 native taxa that occur in these critically endangered communities is now available on [Florabase](#). Knowledge and understanding of the exceptionally diverse and sometimes cryptic flora of these wetland communities and associated woodlands underpins effective protection, management and restoration works. With this in mind the herbarium has been developed for land managers across the Swan Region. The Brixton Street Field herbarium is a collaborative project between Urban Nature, the Friends of Brixton Street Wetlands and the WA Herbarium. It is part of the continued documentation of flora of the 19ha Class 'A' Brixton St Wetlands and of the Greater Brixton Street Wetlands, one of the largest (175ha) and most significant areas of remnant vegetation on the Pinjarra Plain.

Compilation of the Brixton Street Field Herbarium

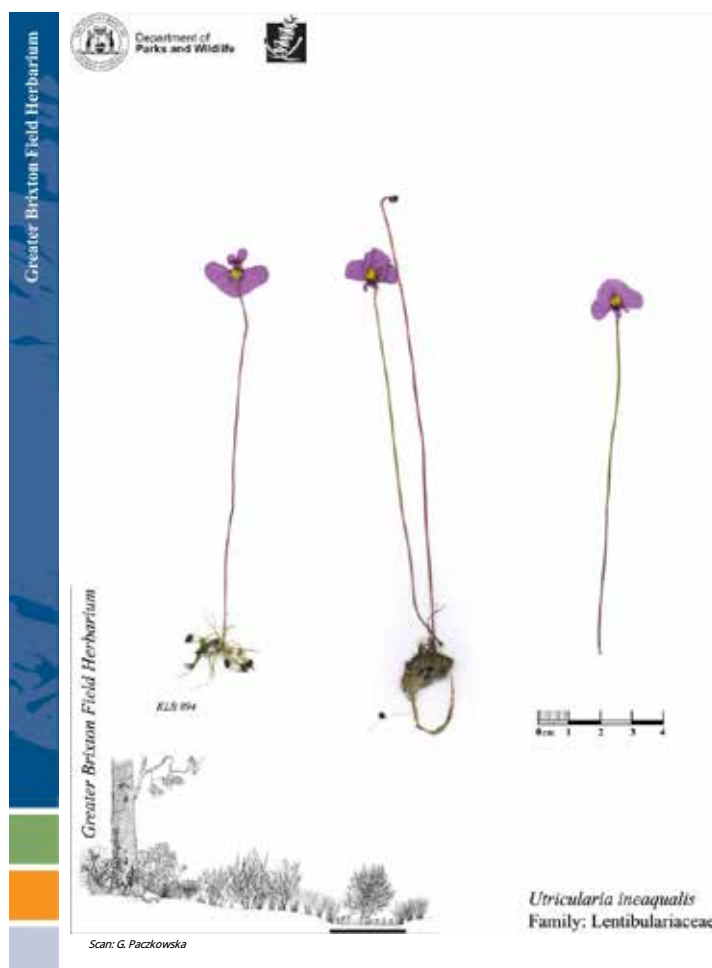
Collections made on monthly and opportunistic site visits to the wetlands throughout the year over a five year period formed the basis of the field herbarium. Specimens were photographed in the field, site information documented and fresh material scanned using a flatbed scanner within a few hours of collection. Pressed and dried specimens were submitted for incorporation into the WA Herbarium. For each species an image collage, collecting notes and a scan of the fresh specimen have been incorporated into a fact sheet (using [Fact Sheet Fusion](#) software). The fact sheet also includes a vegetation profile where the horizontal bar indicates the species' habitat.

The project is ongoing and it is intended that new collections and fact sheets will be added over time. Two hundred and fifty vouchers have been lodged at the WA Herbarium including 40 new records of native flora for the nature reserve. An additional seven species of priority flora, were recorded for the 19ha reserve, with one *Conospermum griffinii*, a new record for the Swan Coastal Plain.

Contact: Kate Brown, DBCA by [email](#). Grazyna Paczkowska, DBCA by [email](#).



Produced by Urban Nature, Swan Region, in collaboration with the Western Australian Herbarium, Department of Parks and Wildlife



Utricularia inaequalis grows in inundated seasonal wetlands and comes into flower at Brixton St in spring as water levels begin to drop. Flowering continues until the claypans dry in early summer and as the photos illustrate, it grows among rushes and co-occurs with many native herbs that have a similar life cycle. *Utricularia*'s are insectivorous and the small insect trapping bladders on the roots of *Utricularia inaequalis* are visible in the scan of the whole plant. When water borne prey such as protozoa or water fleas pass by the bladders they trigger fine hairs on an inward opening door, are sucked into the bladders and sealed in as the door shuts. The prey decomposes over time and resulting nutrients concentrating in the bladders are absorbed by the plant.

Friends of Samphire Cove Nature Reserve

Where we work

Samphire Cove Nature Reserve is located along the shoreline of the Mandurah Estuary within Halls Head. Samphire Cove is a Class 'A' nature reserve with the purpose of conservation of flora and fauna. It is a part of the Peel-Yalgorup wetland system, which is a wetland of international significance under the [Ramsar Convention](#). The nature reserve has high conservation value and contains the Sub-tropical and Temperate Coastal Saltmarsh ecological community listed as Vulnerable under Commonwealth legislation.

What we do

We are enthusiastic volunteers who undertake a range conservation management activities including restoration and planting of seedlings, weed control, collection of rubbish, maintenance of bird hides, fence repairs and development of all-abilities access paths within the nature reserve.

We hold monthly conservation management activities at Samphire Cove Nature Reserve and are also involved in annual events such as planting days (supported by the Peel-Harvey Catchment Council), Clean Up Peel Waterways (City of Mandurah) and Walk-Over October (Department of Health). Between 10 and 20 volunteers usually attend each month with a higher number of volunteers usually involved with planting days and rubbish collection days. Participants include volunteers from a range of ages, backgrounds and abilities including local community members, retirees, university students, bird and general nature enthusiasts.

Aims and objectives

The Friends aim is to protect and enhance the conservation values of the nature



Friends of Samphire Cove Nature Reserve and Dudley Dolphin participate in the Clean Up Peel Waterways Event in March 2017. Photo – Robert Wroth.

reserve for its own intrinsic value as well as for the enjoyment of visitors now and into the future. We encourage community participation and promote a friendly and welcoming atmosphere for those wishing to volunteer with other environmentally-minded people and aim to make the area safe for visitors to enjoy. We also aim to assist in building a happy, health and safe community within the Halls Head area.

Our successes

We officially formed in December 2012 in response to complaints of anti-social behaviour and rubbish being left within the nature reserve. There have been many improvements, including a decrease in levels of anti-social activities, since the group formed and started working to improve its condition. In 2015, after community consultation we obtained a Government

grant and worked with the former Department of Parks and Wildlife to install an all-abilities access path to the first bird hide.

In 2016 and 2017 we received support from the Peel-Harvey Catchment Council with the provision of native seedlings, mulch and weed matting for planting sites. This has proven to be a successful method of revegetation with an 85 per cent strike rate. Seedlings are also watered on a monthly basis and weed control carried out surrounding the planting sites allowing seedlings to establish and persist over the hot summer months. Our presence working in the nature reserve, particularly through rubbish collection, has made a great difference in ensuring Samphire Cove remains a safe place for the community to enjoy.

Future plans

Plans for the future include continuing to restore degraded areas of vegetation that are currently dominated by weeds and replacing these with native seedlings. This will improve habitat condition and connectivity of vegetation which will also benefit native fauna within the nature reserve. There are also plans to increase all-abilities access and to install updated interpretive signage. We meet at Samphire Cove Nature Reserve, corner of Egret Point and Wedgetail Retreat in Halls Head, at 9am on the last Sunday of each month.

Contact: Barry Small, Friends of Samphire Cove Group Co-ordinator, by [email](#) or [web](#).



Samphire Nature Reserve, Halls Head contains the threatened ecological community of coastal saltmarsh. Located in the Peel Estuary, it is an area recognised internationally for its natural values including its importance for waterbirds. Photo – Michael Bell.

Resources

New publications

Name those grasses: identifying grasses, sedges and rushes. Clarke, Ian.

Royal Botanic Gardens, Victoria, 2015. \$48.00. This book describes the structure of grasses and similar groups, explains the language used in their description, and describes the process of identification. The drawings and photographs, emphasising structural details, illustrate over 200 species of grasses, sedges, rushes, restios, rope-rushes and typha common in temperate parts of the world.



Stepping Off: rewilding and belonging in the south-west. Wilson, Thomas M. Fremantle Press, 2017. \$29.99.

The story of the south-western corner of Western Australia: an environmental history, a social history, an invitation to reconnect with the land - part memoir, part nature lover's guide to the South West.

Lookout for kangaroo paws

By Julia Cullity

The next time you are out in the bush and spot a kangaroo paw take time to marvel over this common and endemic WA genus. *Anigozanthos* has 11 species all naturally restricted to the south west of WA, with many more varieties, subspecies and commercial hybrids. The velvety hairs give each kangaroo paw its colour, ranging from red, pink, purple, orange, yellow and green through to the closely related black kangaroo paw, *Macropidia fuliginosa*.

South-west WA has the highest percentage of vertebrate pollinated plants in the world, with 15 per cent of our flowering plants pollinated by birds or mammals. Kangaroo paws are pollinated by birds. The long, colourful flower heads reach above the surrounding foliage attracting birds and the sturdy stalk provides a perch. The flower shape allows pollen to be deposited on the heads of the birds as they delve deep into the floral tube to feed on nectar. The position of the anthers in different

Website Watch

2017 Great Cocky Count report (PDF) detailing results from the Great Cocky Count, 9 April 2017, and analysing trend data from the previous seven years of this annual citizen science survey for three species of threatened black cockatoos in southwest WA.



Boodjar Nyungar Placenames three-year investigation on the history and meaning of Nyungar placenames. The project begins to redress the void in the identification, recording and writing of Australian Indigenous histories.

Kaartdijin Noongar – Noongar Knowledge website of the South West Aboriginal Land and Sea Council, sharing Noongar culture.

Bird Guides are available for over 80 sites across metropolitan and regional WA on the **Birdlife Australia website**.

Apps

Wildcare Helpline app provides a service for the public who find sick or injured native wildlife in Western Australia. It will find your closest wildlife rehabilitator or give you a list of nearby vets, wherever you are in WA. It also provides a range of advice and information on basic help for wildlife to ensure that any sick or injured wildlife has the best chance of survival. Download on [Android](#) or [Apple](#).

Wildflowers WA Photo ID is an [app](#) that provides online access to thousands of images and species information profiles for Western Australian flora. Tailored for all levels of expertise, users can search for flowers by type, colour, leaf size and shape, plant size and habitat and view individual species profiles for the plants of Western Australia. Annual subscription \$27.50

pws.dbca.wa.gov.au



Photo – Mark Brundrett.

species deposit pollen to different parts of the birds' head meaning that pollen from one species is unlikely to be deposited in the flowers of another species. This is one reason why plant breeders have had so much success in creating new and distinctive colour

variations and growth forms with cross-pollinated hybrids.

The suburb Nollamara was named after the Noongar word for the red and green kangaroo paw, our state floral emblem.

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