

Creating Living Landscapes By Luke McMillan

Issue 96

Summer 2015-2016

*Time of Birak and
Bunuru in the
Nyoongar calendar.*

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Perth NRM recently awarded \$720,000 of grant funding to six outstanding community projects aimed at protecting threatened and priority flora, fauna, communities and wetlands to enhance landscape resilience in the Swan region.



Living Landscapes projects protect species, ecological communities and internationally important wetlands. Lisa Potter, PNRM CEO (from left), congratulates successful Living Landscapes grant recipients Jolene Wallington, Jane Brook Catchment Group, Darren Glover, WWF Australia, Leonie Stubbs, Friends of Paganoni Swamp, Brett Kuhlmann, SERCUL, Ken Dunsborough, Armadale Gosnells Landcare Group. Photo – Maria Filamor.

Funded through the Australian Government's National Landcare Program, Perth NRM's Living Landscapes is focused on community-led projects that protect and enhance biodiversity in priority landscapes identified through the Planning for Climate Change Project. The substantial investment and extended timeframe through to June 2018 has provided a very exciting opportunity to plan and implement long term, landscape scale projects.

The successful recipients were announced at a ceremony at Caversham House on 9 December. The six chosen projects aim to enhance and restore critical habitat for 20 nationally threatened species, including the western swamp tortoise, chuditch, Carnaby's cockatoo and curved leaf grevillea, as well as five threatened ecological communities, three nationally important wetlands and one Ramsar wetland.

Enhancing regionally significant remnant vegetation along the Perth Hills Heritage Trail

The Jane Brook Catchment Group plan to work with partners at eight bushland reserves and on the Railway Reserves Heritage Trail that connects them focussing on regionally significant weeds, managing dieback, restoring habitat and undertaking

important flora and fauna surveys between Swan View and Chidlow in the region's east.

From marri woodlands to seasonal wetlands; restoring resilience across the Pinjarra Plain

The Armadale Gosnells Landcare Group aims to implement weed control, revegetation and hydrological management actions in the nationally significant Greater Brixton Street Wetlands to protect high priority flora, fauna and ecological communities.

Building a resilient landscape across woodlands and wetlands at Paganoni Swamp Reserve

The Friends of Paganoni Swamp project will focus on managing the spread of dieback and impacts of weed invasion to restore priority habitat and build resilience across Paganoni Swamp.

Protecting threatened ecological communities, endangered flora and fauna, and Ramsar values of Forrestdale Lake

Working with key stakeholders, the South East Regional Centre for Urban Landcare (SERCUL) will implement strategic weed, pest and access management to address threats to priority species and ecological communities, and the Ramsar wetland Forrestdale Lake.

Continued page 5 ...

Seasonal clay-based wetlands workshop: Wandoo National Park

By Kate Brown and Grazyna Paczkowska

Each year the Urban Nature team runs a workshop for managers of the threatened ecological community 'seasonal clay-based wetlands of the Swan Coastal Plain'. The aim is to bring together land managers, community volunteers and researchers to build a better understanding of how to manage these ecosystems. This year the workshop was held in the Margaret Forrest Centre in John Forrest National Park followed by a field trip to the seasonal wetlands in Wandoo National Park.

The day began with a presentation by Parks and Wildlife's Dr Adrian Pinder on aquatic fauna of the seasonal wetlands in Wandoo National Park. Survey of the wetlands by Adrian's team has revealed a number of taxa of conservation significance including a mosquito (*Aedes* sp. 'dobaderry') otherwise only known from the claypans of Drummond Nature Reserve, and a rotifer (*Plationus?* sp.) known only from Goonapping Swamp in Wandoo National Park.

Dr Juliet Wege, from Parks and Wildlife explained how understanding the tiny trigger plants of Wandoo National Park can help inform conservation and management of seasonal wetlands. Juliet has been surveying the seasonal wetlands of the park over the last 15 years for rare and priority trigger plants in particular, and her work has greatly contributed to the understanding of the wetlands' conservation values. At least two species of trigger plants, apron trigger plant, (*Stylidium rubricalyx*) and asymmetric trigger plant (*S. asymmetricum*) are currently known only from the seasonal wetlands in the park.



The seasonal wetlands in Wandoo National Park support a number of species of priority flora including apron trigger plant and *Hydrocotyle lemnooides*. Photos – Kate Brown. They also support populations of a mosquito otherwise only known from the clay pans in Drummond Nature Reserve, *Aedes* sp. 'dobaderry'. Photo – Adrian Pinder.

Kate Brown highlighted other flora conservation values associated with the wetlands including a threatened ecological community and at least eight priority species. Parks and Wildlife flora officers and volunteers Fred and Jean Hort have contributed greatly to the knowledge of rare and priority flora of the area and have helped raise awareness of the conservation values of the wetlands.

To help address concerns raised about damage from off road vehicles we invited Dr John Collins and Steve Wilke of Track Care WA to give a presentation. Track Care and Parks and Wildlife staff have been working on a system of signage aimed at raising awareness of the damage being caused by inappropriate use of off road vehicles.

John emphasised that joint management and education in partnership with the four-wheel drive community was the best way of protecting the seasonal wetlands in Wandoo National Park from uncontrolled access.

Bob Huston provided a demonstration of the cage traps Parks and Wildlife are using to trap feral pigs in and around the national park and discussed a research project that aims to monitor and estimate pig numbers.

A field trip to Little Darkin Swamp in the afternoon took participants through the wandoo woodland to catch the very last of the flowering in the claypans. Thanks to Perth Hills staff for hosting the workshop.

Autumn Bushland News

Autumn *Bushland News* contributions should be sent to [Urban Nature](#) by **Thursday 3 March 2016**. *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.

This publication is available in alternative formats on request.

Contacts

Urban Nature office

Julia Cullity 9442 0320
Kate Brown 9442 0321
Grazyna Paczkowska 9442 0322

Department of Parks and Wildlife,
Swan Region Office, Cnr Australia II Drive and
Hackett Drive, Crawley WA 6009
Locked Bag 104,
Bentley Delivery Centre WA 6983
Fax 9386 6399 Email urban.nature@dpaw.wa.gov.au

Current and archived issues of *Bushland News* are available at www.dpaw.wa.gov.au/bushlandnews

Wanted: road-killed boobooks and daytime roost reports

By Michael Lohr



Boobook on a daytime roost in Woodvale, WA.
Photo – Steven Spragg.

The southern boobook (*Ninox boobook*) has suffered range-wide declines across Australia since 1999. My PhD research is studying the impacts of habitat fragmentation on boobooks in WA. Understanding the threats facing boobooks and where threats are most severe will help explain the ongoing decline in boobook populations and inform plans to reverse it. I will examine genetics to understand whether inbreeding is a problem in urban, agricultural, and woodland boobook populations, as well as test whether artificial boobook nest boxes combat loss of nest hollows. Boobooks are often killed or injured in collisions with vehicles and windows and I'll also be investigating other possible causes (like the disease toxoplasmosis and exposure to rat poison) that may increase the likelihood of vehicle strikes.

How can you help?

If you come across a dead boobook or boobook feathers, please contact me and I will arrange to pick up as soon as possible. If the death was recent, within a few hours, please place it in a plastic bag and keep it cool in a refrigerator, if that is not possible a freezer is ok. The birds' livers will be analysed for seven different kinds of rat poison and the heart and muscle tissue will be used to test for the disease toxoplasmosis. Even if the carcass is not in good condition it will provide valuable genetic information, so please do not hesitate to contact me.

I am also seeking reports of boobooks sighted during the day. Young nestlings are about to fledge and can be very obvious. If you sight one, please contact me and I will visit the location right away. I'll take a small blood sample to test for toxoplasmosis and genetic analysis, take a few measurements and return it to its roost.

Contact: Michael Lohr, Edith Cowan University, 0407 147 901 or [email](#).

Biosecurity Blitz a success!

By Alexander Popoff-Asotoff

More than 500 pest reports were received from members of the community during the inaugural Biosecurity Blitz this year. The Blitz, carried out by Department of Agriculture and Food Western Australia (DAFWA), invited the community to help build a snapshot of the diversity of insects, weeds, diseases and animals in our environment.

Participants, who ranged from growers and agronomists to backyard scientists, were encouraged to submit reports using a variety of reporting tools such as the MyPestGuide Reporter app. Pest reporters were able to take pictures and receive identification of their submitted pests from experts at DAFWA, which were then mapped online on the [MyPestGuide website](#).

The Blitz has provided valuable data which can be used to help verify whether or not Australia has certain unwanted pests through direct evidence or through inference reporting. Inference reporting uses reports of common or benign pests to statistically determine the probability of other pests being present. A report of a common pest could rule out a more exotic or damaging pest from existing in the same location that could pose a biosecurity threat. These reports can be used to help protect the environment, growers and our import and export trade markets.

The Biosecurity Blitz is an annual event run from 18–30 September and is part of the Boosting Biosecurity Defences project, made possible by Royalties for Regions.

Contact: Alexander Popoff-Asotoff, DAFWA by [email](#).

Perth and Peel Green Growth Plan for 3.5 million

The WA Government has released the draft *Perth and Peel Green Growth Plan for 3.5 million*, the largest urban-based environmental assessment ever undertaken in Australia for public comment.

The *Green Growth Plan* delivers a comprehensive package of commitments to protect both federally listed matters and State environmental values including 170,000ha of new parks and reserves in Perth and Peel and immediate surrounds, establishing secure tenure and management arrangements for Bush Forever sites, improved protection and management of threatened species and ecological communities, establishing the Peel Regional Park and marine management area, targeted on-ground actions to rehabilitate and improve Carnaby's cockatoo feeding and breeding habitat, as well as a substantial package of measures to reduce nutrient inflows and improve water quality in the Swan Canning and Peel Harvey estuaries, and broader Peel-Yalgorup wetland system.

The draft *Green Growth Plan* is available for a four month [public comment](#) period 17 December 2015 to 8 April 2016.

Western Shield: wildlife recovery through integrating fox and feral cat control at a landscape scale in Western Australia



Ashley Millar, Michelle Drew and Fran Stanley

The European red fox (*Vulpes vulpes*) and the feral cat (*Felis catus*) have been implicated in the extinction of at least 22 mammal species native to Australia. These predators have also been considered partially responsible for declines in numerous native bird species including malleefowl, western ground parrot and noisy scrub-bird and several reptile species such as western swamp tortoise and marine turtles. Predation of native fauna by feral cats is listed as a threatening process under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* and reducing their impact on native fauna is considered essential to fauna conservation in Australia. In fact, 'tackling feral cats' is one of the key action areas in the Australian Government's [Threatened Species Strategy](#).

Parks and Wildlife's *Western Shield* program has been baiting foxes since 1996 and has had significant success in the control of foxes over 3.8 million hectares of WA's native forests and bushland extending from Esperance to



Eradicat® baits being prepared for deployment at Matuwa. The sausage bait is only partly dried to make it more palatable for cats, similar to a chorizo. Photo – Steve Toole.

Karratha. The program's success relies heavily on the tolerance of many of WA's native fauna to the naturally occurring poison sodium fluoroacetate, which is manufactured as 1080, a characteristic largely unique to this State. This poison is naturally found in native plant species belonging to the *Gastrolobium* genus.

As much of our native fauna eat these plants or animals that consume these plants, WA's native fauna have developed a high tolerance to the toxin. In contrast, foxes and feral cats have little or no tolerance to 1080 and most foxes will readily take dried meat baits (Probait®) containing the poison enabling the control of fox numbers in large areas of the State. Feral cats in general tend to be more fussy and do not usually take the baits currently used for fox control.

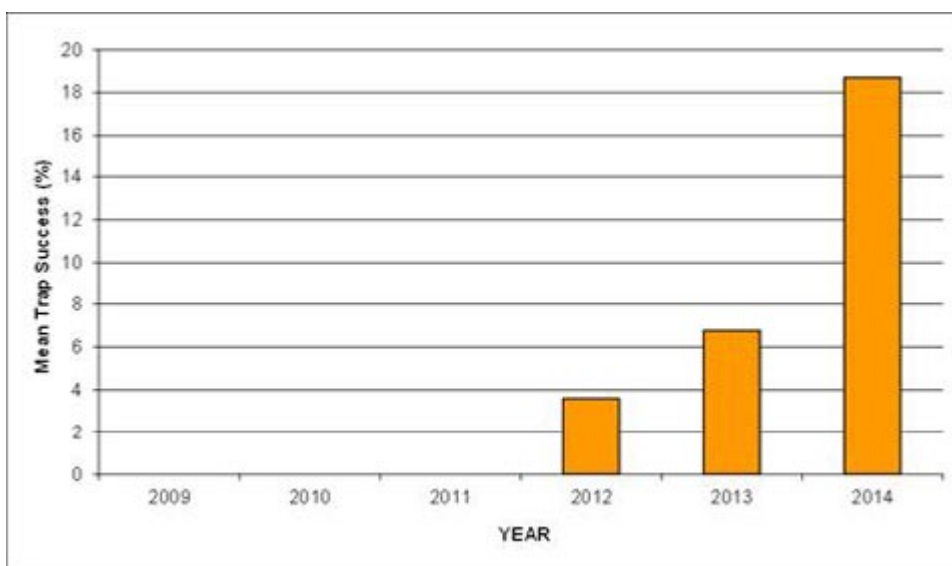


Figure 1: Eradicat® was integrated with fox baiting at Cape Arid National Park in 2011 as part of the South Coast Integrated Fauna Recovery Project. Feral cat activity has reduced during this time and fox activity has been found to be very low. Quenda trap success at Cape Arid National Park has increased significantly since the integration of Eradicat®; prior to this it was undetectable. Graph source – Sarah Comer, Western Shield.



Heart-leaf poison (*Gastrolobium bilobum*) is one of the WA pea species that naturally contains the poison sodium fluoroacetate, which is a natural version of the chemical compound also used in 1080 poison baits. Our native fauna have developed a high tolerance to this toxin unlike their introduced predators. Photo – Ashley Millar.

In response to increasing feral cat numbers and recent declines in some native species most likely as a consequence of cat predation (e.g. woylie and numbat), Parks and Wildlife scientists have developed a feral cat specific bait, Eradicat®. Composed of kangaroo meat, chicken fat, flavour enhancers and 1080, the bait unlike Probait®, is only partially dried and far more palatable to cats. The bait has been used successfully as part of eradication of feral cats from Hermite Island in the Montebello Islands and Faure Island, Shark Bay. It is currently being used to eradicate feral cats from Dirk Hartog Island National Park ahead of the reconstruction of a suite of native fauna there.

On the mainland, field trials have revealed significant and sustained feral cat control success using Eradicat® at the landscape scale in arid environments, such as Matuwa (Lorna Glen). Parks and Wildlife researchers [found](#) the majority of annual baiting events at Matuwa between 2003–2009 resulted in significant reductions in feral cat activity immediately after baiting (i.e. from 26.4 cats per 100km of transect prior to baiting down to an average of 6.4 once baiting had commenced).

Further baiting research at Matuwa by Parks and Wildlife scientist Neil Burrows and colleagues in 2015 resulted in a 50 to 60 per cent reduction in feral cat activity based on track and camera monitoring. Initial trials on the south coast have also shown promising results with strong recovery of quenda along trapping transects since baiting with Eradicat® commenced there.

From page 1 ...

Ellenbrook – Walyunga threatened biodiversity landscape linkage project

Working at six reserves within a priority landscape, WWF will implement weed control, revegetation, riverbank management and germination trials for curved leaf grevillea with partners and the local community aiming to build long term resilience of threatened flora, fauna, communities and other conservation priorities in the Ellenbrook-Walyunga area.

Protecting and enhancing the biodiversity of Booragoon Lake

The South East Regional Centre for Urban Landcare will undertake a three year management program focusing on

the brazilian pepper infestation which is threatening the Booragoon Lake, a nationally important wetland.

The lead community groups have developed strong partnerships with friends groups and volunteers, local government authorities and state agencies including the Department of Parks and Wildlife. These partnerships will ensure technical knowledge and considerable additional resources are available to support the successful delivery of these projects. The total value of the Living Landscapes Program is now more than \$2.04 million.

Contact: Luke McMillan, Perth Region NRM. 9374 3333 or [email](#) and [web](#).



The significant threat of predation by feral cats to native wildlife has been recognised this year in the national Threatened Species Strategy with key actions and targets for feral cat management being set. Here a feral cat is caught on camera in Cape Arid National Park with a quenda (Isoodon obesulus fusciventer) as its prey. Photo – Parks and Wildlife, South Coast Region.

Further 'mop-up' work is still likely to be required to remove feral cats that survive baiting campaigns in specific locations for example at translocation sites and the habitat of critically endangered species.

Management trials set to occur

Further work is required to trial the efficacy of the bait in other regions of the State, particularly the south-west. The moist Eradicat® bait is far less stable than Probait® once in the environment, therefore the baits must be deployed during ideal weather conditions (dry conditions) and when bait uptake by cats is likely to be optimum (when few alternative food sources are available). Bait application needs to be carefully timed to ensure optimum control.

The Australian Government recently provided \$1.7 million to Parks and Wildlife to support feral cat control under *Western Shield*. The funds will be used to run trials to determine the most effective application of the bait when integrated with fox baiting. Trial sites include Kalbarri National Park, Dryandra Woodland, the Upper Warren area and south coast sites like Fitzgerald River and Cape Arid national parks. The funding will also be used to monitor the efficacy of the baiting program in different bioregions and to enable the translocation of some key fauna species to areas where they were formally found as well as boosting existing wild populations.

More information

Algar D, Onus M, and Hamilton N (2013) Feral cat control as part of Rangelands Restoration at Lorna Glen (Matuwa), Western Australia: the first seven years. [Conservation Science Western Australia](#) 8(3) 367–381.

Australian Government (2015) [Threatened Species Strategy](#).

Burrows N, Liddelow G, Ward B, Jackson V and Thoomes E (2015) Matuwa Introduced Predator Control Program - 2015 Aerial Baiting Report Department of Parks and Wildlife unpublished report.

Department of the Environment (2015) [Threat abatement plan for predation by feral cats](#).

Western Shield visit [website](#).


Contact: Ashley Millar, Parks and Wildlife by [email](#).

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 Rutherford (ABBBS Coordinator) 0438 910 252 or [email](#).


Saturdays 8am–10am

-  **Bushcare and rivercare activities** with **Bicton** Environmental Action Group. Second and fourth Saturday of each month. Contact Peter 0439 467 855 or [email](#).

Saturdays 8am–9am

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

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.


Saturday 8.30am–10.30am

-  **Bush care 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. Contact Mary-Ann 9316 9716 or [email](#).

Saturdays 8.30am–10.30am

-  **Bushcare activities** with Swan Estuary Reserves Action Group at **Alfred Cove** A-Class Nature Reserve. Fourth 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, Sundays 9am–12 noon

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


Sundays

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


Sundays 8am–9am

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


Sundays 8am–10am

-  **Bushcare activities** with Friends of **Shenton** 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 each month. Meet at the south end of Strickland St, Swanbourne. Current focus: hand weeding. Wear closed in shoes, hat and long-sleeves. Gloves and tools provided. Contact 0416 614 696 or [web](#).


Sundays 9am–11am

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

Sundays 9am–12noon

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


Sundays 9.45am–12 noon

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


Mondays 7am–8am

-  **Norma's Monday Morning Weeding Group**. Friends of **Lake Claremont**. Learn basic hand 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** A-Class Nature Reserve, **South Perth**. Second Monday of each month. Contact Cathie 9339 2439 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** A-Class Nature Reserve. Contact Cathie 9339 2439 or [email](#).


Tuesdays and Thursdays, 8am–10am

-  **Coastal dune bushcare activities** – weeding and planting. Stirling Natural Environment CoastCare. Contact Sheldon 0488 190 651 or Rae 0419 191 710.

Wednesdays, 3pm–5pm during school term

-  **Wildlife Wednesdays**. Join 'Eco-Warriors' at **Herdsmen Lake** Wildlife Centre. Contact 93876079 or [email](#).


Thursdays 8am–9am

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

Thursdays 9am–1pm

-  **Bushcare activities** in **Margaret River** with the Capes Volunteer Team. Call 9757 2202.


Thursdays 9am–11am

-  **Bushcare activities** on the fourth Thursday of each month at **Baldivis** Children's Forest. Contact [web](#) or [email](#).

Thursdays and Sundays 10am–12 noon

-  Every Thursday and Sunday, **Kanyana Wildlife Centre**, Discovery Centre Tours. Close encounters with native animals and interactive Discovery Centre. \$15/adult, \$10/child, \$12/senior, \$40/2A2C. Bookings essential [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](#).

Fridays and Saturdays 7pm–9pm

-  First Friday and second Saturday every month, **Kanyana Wildlife Centre**, Nocturnal Tours. Meet nocturnal native wildlife and hear about endangered species breeding programs. \$20/adult, \$12/child, \$55/2A2C. Bookings essential [web](#), [email](#) or 9291 3900.

Fridays 8am

-  **Bushcare activities** at **Piney Lakes**. Conservation of black cockatoo habitat restoration site and Bidi Katitjiny Aboriginal women's trail. Volunteers need a site induction email [Jacklyn](#).


Please send us your April, May, June 2016 events by Thursday 3 March 2016.

Registration/contact details


BirdLife WA All walks are free, bookings not essential. Call 9383 7749 Monday–Friday 9.30am–12.30pm or [email](#).


BGPA Bold Park Bushland Volunteer Guides. Walks leave from the Tuart car park on Perry Lakes Drive, City Beach. Contact [web](#), 9480 3996 or [email](#).


January


-  **6 Wednesday, 10–11am Nature Strips**, children's art workshop. Transform our Wanneroo Gallery's street lawn into a thriving nature strip of native animals. The Nature Strip will be on display until 13 January. Ages 4–12 accompanied by an adult. Wanneroo Gallery, 3 Rocca Way, Wanneroo. Bookings essential 9405 5920 or [email](#).


-  **9 Saturday January, 7.30 am Bird walk** at **Lake Gwelup**, Stirling. Meet in the car park at the corner of Stoneman St and Huntriss Rd, north of Karrinyup Rd. **Birdlife**

-  **9 Saturday, 10am–4pm Celebrate Nature**, open day at the Artful Gene exhibition (see highlights) where you can meet Mike, the artist and others who helped create the project. Wanneroo Gallery, 3 Rocca Way, Wanneroo.


-  **11 Monday 6pm** Enjoy spectacular views and getting nearer to nature at dusk. Twilight walk with Friends of **Bold Park** Bushland Volunteer Guides. **BGPA**


-  **13 Wednesday, 10.30–12 noon Gardens for Wildlife** interactive workshop with Mike and Mandy Bamford to talk about animals that share Perth's suburbs and how to encourage them to live in your garden. Wanneroo Gallery, 3 Rocca Way, Wanneroo. Bookings essential 9405 5920 or [email](#).


-  **14 Thursday January, 7.30 am Birdwalk** at **Baigup Wetlands**, Bayswater. Meet at the car park near the rowing club at the end of Milne St in Bayswater. **Birdlife**


-  **28 Thursday 6pm** Enjoy spectacular views and getting nearer to nature at dusk. Twilight walk with Friends of **Bold Park** Bushland Volunteer Guides. **BGPA**

February

-  **16 Tuesday 5.30pm** Enjoy spectacular views and getting nearer to nature at dusk. Twilight walk with Friends of **Bold Park** Bushland Volunteer Guides. **BGPA**

-  **18 Thursday February, 8.30 am Birdwalk** at Eric Singleton Bird Reserve, Bayswater. Meet in the carpark on Bellevue St. **Birdlife**

-  **20 Saturday February, 7.30 am Birdwalk** at Blackwall Reach, Bicton. Meet at the junction of Kent St and Blackwall Reach Pde. **Birdlife**

-  **29 Monday 5.30pm** Enjoy spectacular views and getting nearer to nature at dusk. Twilight walk with Friends of **Bold Park** Bushland Volunteer Guides. **BGPA**

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.

March

5 Saturday 4.45–9.15pm

Moon walk on Bibbulmun track east of Armadale. A casual 9km return guided walk through jarrah forest to Abyssinia Rock. Bring a picnic to watch the setting sun and rising full moon. \$30 [bookings](#).

8 Tuesday 5.30pm

Enjoy spectacular views and getting nearer to nature at dusk. Twilight walk with Friends of **Bold Park** Bushland Volunteer Guides. [BGPA](#)

12 Saturday 9am–1pm

Attracting and Retaining Volunteers. This interactive workshop will cover how to appeal to new members, keep existing ones and how to and who to communicate with about your group and its activities. Piney Lakes Environmental Centre, Leach Hwy, Winthrop. \$30. Bookings essential [email Perth NRM](#) or 9374 3333.

17 Thursday March, 7.30 am

Bird walk at Lake Monger, Cambridge. Meet in the most westerly car park off Lake Monger Dr. The walk around the lake will take 2 to 3 hours. [Birdlife](#)

19 March, 9am–12noon

Greencard training with Bush Skills for the Hills. Workshop covers all aspects of safety for volunteers working in bushland areas, including Hazardous Substance Handling Training. This accreditation is required for any volunteer wishing to use chemicals provided by the Shire of Kalamunda and Shire of Mundaring. Friends group coordinators are required to attend this workshop in their first year and at least once every three years after that. All group members are encouraged to attend. Bookings essential contact Nina 9424 2216 or [email](#).

Sunday 20 March, 7.30 am

Birdwalk at Canning River Regional Park, Wilson. Meet in the Kent Street Weir car park. The walk follows a 5km circuit along the Canning River. [Birdlife](#)

21 Monday 5.30pm.

Enjoy spectacular views and getting nearer to nature at dusk. Twilight walk with Friends of **Bold Park** Bushland Volunteer Guides. [BGPA](#)

Learning opportunity

Basic course in wildlife rehabilitation

An introductory course for anyone in the community interested in the rehabilitation of sick, injured or abandoned native wildlife. For 2016 courses visit the [website](#).

Highlights

Sparkling summer a range of nature-based summer holiday activities for different age groups ages 3-14. Activities include caving, canoeing, animal encounters, beach exploring, camping, cooking and more. Check out the [calendar](#) for all the activities offered by the Nearer to Nature team. Bookings are essential call 9295 2244. They also have a [facebook](#) page.

3 January – 13 January 2016 (closed Sunday), 10am–4pm

The **Artful Gene Project** an [art exhibition](#). Spanning two continents and two centuries, great-grandson Mike Bamford discovers a shared family love of art, nature and urban biodiversity. Wanneroo Gallery, 3 Rocca Way, Wanneroo.

13–15 January 2016

Catchments, Corridors and Coasts 2016 a snapshot of Environmental Education in WA. Learn about environmental issues, what is being done by community groups and government, the resources available and how we can work together for a better environment presented by the Australian Association for Environmental Education. [Bookings](#) are essential.

2 February

WA Wetland Management Conference. Celebrate World Wetlands Day at the 12th annual WA Wetland Management Conference. Contact Denise 9417 8460, [email](#) or [web](#).

6-7 February 2016

Birdlife Australia's **Shorebirds 2020** Project is Australia's national shorebird monitoring program, conducting an annual coordinated national count to help understand shorebird population trends locally and across Australia. [Email](#) WA coordinator Bruce Greatwich to get involved.

9-12 February 2016

Species on the Move international conference, Hobart. Addressing species' responses to climate change, this [meeting](#) targets scientists and natural resource managers working in global change, biogeography and evolution.

Month of March

2016 South Coast Festival of Birds. Walks, talks, workshops, exhibitions, films, kites and boat tour. Visit their [website](#) in late January for the program.

March – April. Series of black cockatoo workshops at Wandering, Mandurah, North Dandalup, Harvey, Mundijong. Practical workshops on identification, habitat needs and food resources including backyard stepping-stones hosted by Peel-Harvey Catchment Council, in partnership with Birdlife WA and the Australian Government. Free but bookings essential, 6369 8800 or [email](#).

14-16 March 2016

National Seed Science Forum 2016, Canberra. Will showcase the importance of seed science to the future of plant conservation and food security in Australia. [Registrations](#).

3 Sunday April, sunset, 5.30–6.30pm

Great Cocky Count. Become a citizen scientist and join this annual survey that counts black cockatoos across WA as they come into roost at sunset. [Email](#) to report a roost site or register for the count.

11-15 September 2016

20th Australasian Weeds Conference, Perth. Perth Exhibition and Convention Centre. More [information](#).

Funding opportunities

State NRM Community Capability Grants supports volunteers to improve their capability, governance and management performance. It does not fund on-ground works. [Applications](#) are now **open**. Large projects \$10,000 - \$1 million with up to 2.5 years to deliver **close 18 January 2016**. Small projects up to \$10,000 have a one year timeframe and are awarded first come first served basis until funds are allocated or the round **closes 30 May 2016**.

Swan Alcoa Landcare Program. Funding is available for 2017 for revegetation and rehabilitation activities within Perth that retain, restore and manage bushland, coastal, wetland and foreshore vegetation; or protect and enhance the quality of surface and ground water. [Applications](#) open February and **close April 2016**.

Aspire. Grants up to \$10,000 for individuals representing not-for-profit organisations to attend an international conference. Applicants must be able to present a case for a conference that has the potential to be staged in WA. [Applications](#) **close 31 March 2016**.

Small Grants for Rural Communities Grants of up to \$5,000 are available for projects and activities that offer clear public benefit for communities in rural, regional or remote Australia. Projects should contribute to the development of a community's social and community welfare, economic, environmental, health, education or cultural areas. Priority is given to communities of 10,000 or fewer. [Applications](#) open 21 December and **close 26 February 2016**.

Riverbank. Funding for local government agencies managing land in the Swan Canning Riverpark for foreshore rehabilitation and protection projects. Project funding is based on partnership arrangements and should seek to plan and implement best practice management for foreshore restoration. [Applications](#) likely to be open **February to April 2016**.

Coastal Adaptation and Protection Grants aims to build partnerships with local coastal managers for projects that identify and manage coastal hazards. Open to coastal managers, including local governments, State government, Aboriginal land councils and other corporate bodies directly involved with coastal management. Funding from \$10,000 to \$300,000 for up to 50 per cent of the total project cost. [Applications](#) for 2016/2017 anticipated to **open in February 2016**.

Local Government community grants

These local governments provide small grants for their local communities which can fund environmental groups' bushland management and restoration projects. Eligibility varies, click on the link to get more information. [Wanneroo](#) is likely to open in February and **close in March 2016**. [Gosnells](#) has a **March** round. [Cockburn](#) will **close 31 March 2016**. [Canning](#) will **close 19 February 2016**. [Fremantle](#) will **close 28 February 2016**. [Mandurah](#) has a **February** round. [Swan](#) will open in January and close in **March 2016**. Also check the websites of [Armadale](#), [Belmont](#), [Busselton](#), [Joondalup](#), [Rockingham](#), [Serpentine Jarrahdale](#), [Subiaco](#) and [Vincent](#) as they have previously held funding rounds at this time.

Please send us your regional report (200 words) and a photo by Thursday 3 March 2016. Text may be edited in response to volume of submitted reports.

Putting health and safety first for Perth volunteers *By Sharon Munro*

Registered environmental volunteers in the City of Wanneroo recently gathered to attend a full day's training to gain senior first aid qualifications. Representatives from the volunteer groups were shown how to treat injuries and perform emergency, lifesaving techniques. At the end of the training, volunteers were awarded first aid kits from the City of Wanneroo.

"A great initiative by Perth NRM (and City of Wanneroo) to offer first aid training to volunteers. Informative, friendly and beneficial program by a terrific St John's Ambulance presenter. Highly recommend to anyone who is offered a place in this program." Feedback from Heather Chester, secretary of the Friends of Yellagonga Regional Park.

The first aid training workshop is the first in the Perth NRM's Volunteer Capacity Building in NRM series and additional first aid training workshops with other local councils will be held. Perth NRM thanks

the City of Wanneroo for being the first to participate in this program and help make volunteering in the Perth region safer.

The Volunteer Capacity Building in NRM series is a result of the annual Community Capacity in Natural Resource Management (NRM) Survey conducted by Perth NRM that highlights the needs of the volunteer community. The Community Capacity Survey aims to target investment at what community most needs and to demonstrate that investment into building community capacity increases and enhances natural resource management outcomes.

The next workshop will focus on "Attracting and Retaining Volunteers" and will be held at Piney Lakes Environmental Centre on Saturday, 12 March 2016. Check our What's on calendar for details (page 7). Perth NRM would like to hear from local governments and environmental volunteer groups interested in participating in any of the events in this series.



Environmental volunteers in the City of Wanneroo have recently trained for their Senior First Aid qualification through the Volunteer Capacity Building in NRM series organised by Perth Region NRM.

Contact: Sharon Munro, Perth NRM. 9374 3333 or [email](#).

Project Numbat celebrates first World Numbat Day *By Eveline Masco*

It was proclaimed WA's mammal State emblem in 1973. It eats 20,000 termites a day, and there are only about 1000 individuals left in the wild. We're talking about the numbat (*Myrmecobius fasciatus*). Once widely spread throughout the southern part of Australia, today there are only two remaining wild populations in Dryandra Woodlands near Narrogin, and in Perup Reserve near Manjimup.

In 2006, to address this decline Perth Zoo staff aided by other numbat enthusiasts, established a not for profit committee. Since then, Project Numbat has been raising awareness about the numbat through the delivery of presentations and by hosting events such as the annual National Threatened Species Day in Fremantle in September.

More recently, on Saturday 7 November 2015, Project Numbat celebrated the inaugural World Numbat Day. In a video message produced especially for

the occasion, Threatened Species Commissioner Gregory Andrews pledged his commitment to the numbat's plight. Senior Advisor Sam Dutton acknowledged the importance of community groups such as Project Numbat in the success of conservation projects. Perth Zoo CEO Susan Hunt talked about Project Numbat's contributions to the numbat breeding program. Parks and Wildlife Researcher Tony Friend demonstrated the importance of Project Numbat's fundraising for research projects. In the past decade, Project Numbat has contributed almost \$60,000 to Parks and Wildlife's research and surveys. The greatest contributions have supported radio tracking collars to monitor the numbats' success in the wild after their release from Perth Zoo.



Buy a 2016 calendar to support Project Numbat's conservation projects for WA's mammal emblem. Photo – Project Numbat.

From now on World Numbat Day will be celebrated each year on the first Saturday of November. You can support Project Numbat by buying the 2016 Project Numbat Calendar via the [webshop](#) on the [Project Numbat website](#). Become a member, or follow Project Numbat on [Facebook](#), [Instagram](#) and [Youtube](#).

Contact: Eveline Masco, Project Numbat. [Email](#) or [web](#).

A natural solution

By Kevin McLeod

Lake Goollelal is beset by a recurring problem of excess nutrients entering the lake through the aquifer which feeds into it plus stormwater drainage from surrounding subdivisions. It also receives nitrates and phosphates from Kingslake, an unsewered housing estate to the east of the lake. The result is annual algal blooms that feed population explosions of midges. Midges aren't a health hazard, just a nuisance for local residents and the wider community. The result of all this has been committees appointed and annual costly testing of midge larval numbers which, when the threshold is reached, results in a helicopter spraying insecticide in the lake for midge control.

In search of an alternative environmentally friendly solution, Friends of Yellagonga Regional Park (FOY) has come up with the idea of their version of "floating islands". The principle is similar to hydroponics where the plants float on a raft and draw their nutrients from the water. The plants are various reeds of local provenance suited to a floating existence. Without soil the plant develops a large root mass over time and the roots are host to bacteria which are able to process the nitrates and phosphates into less soluble by-products. To improve the effectiveness it's proposed to use a solar powered pump to move the lake water through the islands and thus process it on a continuing basis while the sun shines. Aeration will aid the process.

A student from Edith Cowan University is checking changes in nutrient concentrations. Shell Australia and Greening WA spent a day attaching reeds to the frames which helped enormously. Thank you. Volunteer labour kept costs to a minimum and FOY provided reeds from their stocks. Shell Australia made a \$1000 contribution to the project plus their time.

Over time the frames will become covered with plants and provide a nesting habitat for birds.

Monitoring foxes

John Hudson and Kevin McLeod from the FOY are actively monitoring foxes and as a side benefit also any other wildlife or feral cat that happens in front of the



The floating island will provide 23 units or 46m² of filtering ability when the reeds are fully grown. Photo – Kevin McLeod.

motion sensitive night cameras. Results so far show that foxes are present and highly active throughout the park in spite of regular trapping.

Foxes heavily predate turtle nests and nesting females resulting in changes to the ratio of males to females. Since 2009 FOY has been checking this ratio and the general health of the turtle populations of Lake Goollelal and Lake Joondalup. The 2015 results appear to show an improvement in Lake Joondalup since fox control started but we will know more after the results have been thoroughly analysed.

Contact: Kevin McLeod, Friends of Yellagonga Regional Park (Inc). 9302 4677 or [email](#).



Shells of nesting female turtles found near a fox den at Lake Goollelal. Photo – Kevin McLeod.

Steam weeder for hire By Jaya Vaughan

Eastern Metropolitan Regional Council (EMRC) has recently purchased a steam weed machine that will be used to treat a variety of weeds in Perth's eastern region. The purchase of the steam weeder follows a successful Working with Weeds seminar EMRC held in April with The Weeds Network. The seminar focused on non-chemical methods of weed control being used throughout Australia and overseas. It was well attended with representatives from local and State government, contractors and community groups.

The system works by producing saturated steam that destroys plant cells on the surface of the soil without penetrating deep into the soil. Weedtechnics Steam Wand machines are being used across the USA, Canada, and in Perth by the City of Fremantle, which has been using it in its streets, footpaths and park areas.

The steam weed machine is available for hire.

Contact: Jaya Vaughan, EMRC. 9424 2216 or [email](#).

Discover more about the natural and cultural heritage of the Swan Canning Riverpark By Ben Ansell

Parks and Wildlife has initiated a project to enhance the community and visitor experience along the City of Melville foreshore, through offering improved riverfront access and amenity while increasing the community's awareness of the natural and cultural values of the Riverpark.

Three new interpretation facilities are being installed in the City of Melville at Bicton Baths, Point Walter and Heathcote, and are due for completion this summer. The facilities are wooden deck structures that link into existing pathways and are shaped to create a multi-use space providing seating, interpretation and improved universal access to the foreshore. These facilities will share valuable natural and cultural heritage information through text, images and audio sound. For instance engraved quotes will run along the aluminium frames of each facility sharing unique stories about each site, while the panels will host images, historical events and storytelling. The panels will also prompt visitors to download the various apps to listen to cultural heritage audio stories about the river.

Planning into action

This project has been in the making for a number of years, forming part of a greater vision of a Riverpark trail with interpretation facilities across the Swan and Canning rivers. Parks and Wildlife has undertaken extensive planning and liaison to develop a draft *Riverpark Trail Masterplan* and the [Marli Riverpark Interpretation Plan](#), marli referring to the 'black swan' in Noongar. These documents have identified key areas for interpretation along the Riverpark as well as recommending that self-guided trails be developed.

Integral to developing the *Marli Riverpark Interpretation Plan*, Parks and Wildlife established a Noongar Advisory Panel to provide heritage information and advice for inclusion in the plan. The panel guided how messages about the Whadjuk Noongar cultural heritage values of the rivers should be told.

The City of Melville was chosen as the first section of the Swan Canning Riverpark to develop the interpretation facilities.



Whadjuk Elders Noel Morich and Marie Taylor during the filming of cultural heritage stories for the Jenna Bidli Yorga trail guide, with Ben Ansell (Parks and Wildlife) and Sam Field (Anthropos Australis Pty Ltd). Photo – Thea Orr, Anthropos Australis Pty Ltd.

Melville's foreshore is easily accessible with a high visitation rate and hopefully will become an impetus to fund and roll out more interpretation facilities across the Riverpark.

Virtual trail guides for self-guided tours

Vital to the project's success is the inclusion of virtual trail guides that will intersect and link the interpretation facilities together. A virtual trail guide is an online trip planner, which provides detailed maps, descriptions of trails and points of interest, photographs and even sound bites via a smart phone or computer. Similar to the interpretation facilities, the long term intent of the virtual trail guides is to develop multiple guides for discrete sections and loops of the Riverpark, eventually covering the majority of the Riverpark's path network. The virtual trail guides will be hosted on various phone apps, such as the [Geotourist app](#) and the [Trails WA app](#).

The '[Melville Water Riverpark Trail](#)' from Fremantle Traffic Bridge to Canning Bridge is one of the virtual trail guides that intersect the new interpretation facilities. This trail guide hosts a variety of points of interest, featuring both the natural and cultural heritage of the area. Visitors can choose an app, search for the trail guide's name, download it, and then begin

walking the trail. When you reach a point of interest stop and read the text, listen to the audio and view photos of the area.

In addition, running along the limestone cliffs of Blackwall Reach, will be a second trail guide named '[Jenna Bidli Yorga](#)', "women's feet walking on a path" in Noongar. This trail guide focuses on the relationship the Whadjuk people have to this area of the river, being traditionally a women's area. This trail guide will also be hosted on the same apps.

Whadjuk Noongar stories

Four Whadjuk elders agreed to share stories of the cultural significance of the City of Melville foreshore. These stories include the creation of the deep water at Blackwall Reach and the sandbar at Point Walter, as well as the cultural significance of other natural features along the river. These audio clips allow people to listen to the stories as they engage with the interpretation facilities and access the various trail guide apps. The audio clips can also be found on the [Explore Parks WA website](#).

Overall, this project has been very rewarding and a real pleasure to be part of such a unique initiative. So make sure this summer you come on down to the southern banks of the Swan River and discover more about the natural and cultural heritage of the Swan Canning Riverpark.

Contact: Ben Ansell, Department of Parks and Wildlife, 9442 0300.

Wandi Landcare Group *By Catherine Garlick*



Wandi Landcare Group at the annual planting day at Magenup Lake Dampland 2013. Work has been ongoing at the wetland for the past nine years. Photo – Debbie Tentori.

The Wandi Landcare Group, part of the Wandi Progress Association (WPA), works on a variety of projects in the area. Wandi is well known for its natural bushland setting and home to many plants and animals, including the endangered Carnaby's cockatoo and grand spider orchid. As well as bushland areas within the Jandakot Regional Park, the Wandi area also contains many wetlands such as Magenup Lake Dampland near the Wandi Community Centre and the Mandogalup Swamps within the new Honeywood urban development.

Since 1988, the WPA has been involved in many community activities in the area. Many residents live in Wandi because of the natural setting and are keen to look after the local environment. Over the past decade the Wandi Landcare Group has been very active in doing a variety of landcare activities such as weed control, seed collecting, the Great Cocky Count and tree planting.

During 2009-2013 the Wandi Landcare Group worked with Parks and Wildlife to manage weeds in Wandi Nature Reserve and find new populations of grand spider orchid. Weed control activities included hand pulling pig face, weed mapping and undertaking spray control in the surrounding drains to prevent weed ingress into the reserve.

With the assistance of the City of Kwinana, the Wandi Landcare Group has been successful at receiving Swan Alcoa Landcare Program grants to continue its on-ground works at Magenup Lake Dampland.

Over the past nine years the group has been involved in tree planting and weed management at the wetland.

This past year has been very busy for Wandi Landcare Group. The annual tree planting in June was a great success with 35 volunteers over the course of the morning planting more than 700 seedlings. Local native species were planted including flooded gum, melaleucas, pink-flowered myrtle and rushes. Members of the Kwinana Scouts also came along to earn their landcare badges. All the volunteers well and truly earned their sausage sizzle and hot drink back at the community centre after the planting.

This year 25 staff members from the National Australia Bank WA Risk Team had a morning out tree planting on 17 July. After the team planted 720 seedlings, they enjoyed a barbecue lunch and [Kaarakin](#) volunteers provided a presentation on the impacts of urbanisation on black cockatoo habitat.



For Planet Ark's National Tree day, 87 people planted a record of 2100 seedlings at Magenup Lake Dampland. A number of groups assisted with the tree planting including the Big Help Mob, Warnbro Scouts, Kwinana Scouts, the Green S team and local Wandi residents. The Green S Team treated everyone with a delicious curry lunch after the hard work. Angela Jakob, bushcare officer at the City of Kwinana, provides tremendous help and support to the Wandi Landcare Group in facilitating the annual planting days and seed collecting.

The Wandi area has seen lots of changes of the years, none so much as the new urban development of Honeywood. This has introduced more people in the area and an added challenge to engage new residents in getting involved. Working with Satterley Property Group and the newly formed Honeywood Residents Group, the Wandi Landcare Group has been involved with night stalks for the past three years. The children always enjoy finding interesting creatures in the natural areas around the estate such as frogs and scorpions. In November the Wandi Landcare Group held a frog pond workshop which was a great success. Children and parents got dirty and built a frog pond and bog. A lot of fun was had learning about the native frogs of the area and how to build habitat to support the wildlife in an urban area.

If you would like to keep up to date with the activities of the Wandi Landcare Group, grab a copy of the [Wandi Warbler](#). The [WPA facebook page](#) also posts regularly on the various activities that are happening.

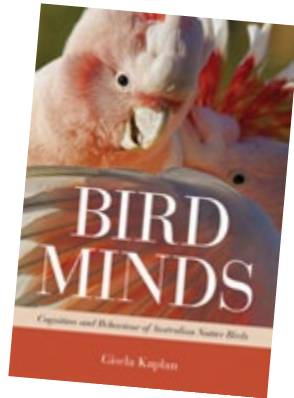
Contact: Catherine Garlick, Wandi Landcare Group, [email](#) and [web](#).

Resources

New publications

Bird minds: cognition and behaviour of Australian native birds.

Kaplan, Gisela. *CSIRO Publishing*, 2015. \$45.00. This book demonstrates how intelligent and emotional Australian birds can be describing complex behaviours such as grieving, deception, problem solving and the use of tools. Many Australian birds cooperate and defend each other, and exceptional ones go fishing by throwing breadcrumbs in the water, extract poisonous parts from prey and use tools to crack open eggshells and mussels.



Discovering Aboriginal plant use: the journeys of an Australian anthropologist.

Clarke, Philip. *Rosenberg Publishing*, 2014. \$50.00. The author argues that we can better understand a people if we know how they see and use plants. Clarke describes the cultural and natural heritage of temperate, arid and tropical Australia and the plants used by Aboriginal people that contribute to their heritage.

Guide to the wildlife of Perth and the South west.

Nevill, Simon et al. *Simon Nevill Publications*, 2014. \$39.00. This comprehensive guide has chapters on birds, mammals, bats, reptiles and frogs, invertebrates, wildflowers and fungi. The introduction covers observing wildlife in the Perth and South west region as well as a guide to localities.



Research

Chapman TF (2015) Reintroduced burrowing bettongs (*Bettongia lesueur*) scatter hoard sandalwood (*Santalum spicatum*) seed *Australian Journal of Zoology* 63 (1) 18–27.

Dundas SJ, Adams PJ and Fleming PA (2014) First in, first served: uptake of 1080 poison fox baits in south-west Western Australia *Wildlife Research* 41(2) 117–126

Marlow NJ, Williams AAE, Brazell R, MacMahon B, Withnell B, Thomas N, Hamilton N, Fuller P and Asher J (2015) The development of a toxic 1080 bait, Pro-bait, for fox (*Vulpes vulpes*) control in Western Australia *Conservation Science Western Australia* 9 (3)

Marlow NJ, Williams AAE, Thomas ND, MacMahon B and Lawson J (2015) The diet of foxes (*Vulpes vulpes*) in fragmented Wheatbelt reserves in Western Australia: implication for woylies (*Bettongia penicillata*) and other native fauna *Conservation Science Western Australia* 9 (3) 249–257.

Website Watch

Glimpses. The South West Catchments Council (SWCC) and Parks and Wildlife's 2011 booklet *Glimpses into disappearing landscapes: Nationally Listed Threatened Ecological Communities of the South West Region* has been reproduced as an interactive [website](#). Since the original publication of the booklet, the Scott River Ironstone Association has been listed nationally as endangered. It has now been added to the booklet and another 200 copies printed. Contact SWCC on 9724 2403 or [email](#).

Kwongan Foundation [Facebook page](#). The Kwongan Foundation for the conservation of Australia's biodiversity has been established to: provide resources for research and study at UWA, implement the gathering and sharing of knowledge, enable long-term planning, attract world-class researchers and achieve tangible improvements in the long-term conservation prospects of endangered plants.

Rakali Community Survey 2014–2015 was a citizen science project surveying for the elusive rakali or Australian water rat organised by WWF and Parks and Wildlife. Download the [report](#) to understand the distribution of rakali, identified threats and management recommendations.

Lookout for

The bar-tailed godwit By Bruce Greatwich



Now is the time our migratory shorebirds finish their southward migration and call Australia home over the summer months. The bar-tailed godwit (*Limosa lapponica*) is one of the larger species of shorebirds that commonly occurs in the south-west. Look for its long, slightly upturned bill and barred tail feathers to identify it from other shorebird species. In 2007, this incredible species was recorded as flying the longest non-stop flight ever recorded, a total of 11,000 km over nine days, from New Zealand to the Yellow Sea in China. Photo – Nigel Jackett.

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