bushancnews urban

Yalgorup National Park Grows By Allan Madgwick



Yalgorup National Park, and its iconic coastal lake system, south of Mandurah, has recently expanded by 980ha following the addition of purchased private lands. This vitally important stretch of RAMSAR listed land runs from 25km south of Mandurah to Myalup, just north of Bunbury. The park now covers 12,888ha of land, which contains important habitat for many significant and threatened species like the Carnaby's cockatoo, chuditch, western ringtail possum and numerous migratory birds. The park is comprised of 10 lakes with the most recognised being Lake Clifton, home to ancient thrombolites.

The addition of this new land to the park will enable rehabilitation to begin restoring the area to its original condition while protecting it from future developments. This allows the wildlife that occupy the area to have a greater chance to expand populations further enhancing their survival rates. With rehabilitation work on existing flora habitats, it is hoped that threatened species will move back into these areas in larger numbers expanding their territories. It will also enhance the protection of the flora species like the Wabling Hill mallee (Eucalyptus argutifolia), a species found on the newly acquired lands. Conservation management will help protect this threatened flora species and many others like it.

As with all changes this new acquisition of land did not come about without the support of the community and other organisations.

New acquisitions to Yalgorup National Park will help conserve threatened fauna and flora species such as the Wabling Hill mallee and buffer and extend the protected area around the internationally significant Yalgorup Lakes system. Photo - Graham Smith.

Thanks to the Peel Harvey Catchment Council, FRAGYLE (Friends of Ramsar Action Group for the Yalgorup Lakes Environment) and the City of Mandurah who have supported and helped drive the purchase of the new lands.

The purchase of these lands highlights a significant investment in the area, and the importance of ensuring the continued protection of this unique and incredibly beautiful and picturesque environment. Yalgorup National Park's lakes are fragile and sensitive ecosystems that need to be conserved for current and future generations to experience and enjoy.

Yalgorup National Park's close proximity to the Perth metropolitan area makes it easily accessible for local, interstate and international visitors. It offers numerous attractions including viewing the thrombolites, bird watching, walk trails, camping at Martins tank, as well as access to the beach for 4x4 vehicles, bridle trails and much more.

With the national park showcasing one of the few remaining lake systems it is a place not be missed Contact: Allan Madgwick, Parks and Wildlife Services by email.



Department of Biodiversity, **Conservation and Attractions**



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

Issue 102 **Winter** 2017

Time of Makuru and Djilba in the Nyoongar calendar.

Urban Nature update	Page 2
Serpentine Rive restoration at Lowlands	r Page 2
Weedwatch: ros (Eucalyptus grad	
Six Season Walk Bunuru	
Taking action or feral cats	Page 4
Great Cocky Cou 2017	unt Page 5
Regional report	s Page 8
Funding opportunities	Page 9
Rabbit biocontrol	Page 10
Group profile: Conservation Subcommittee, Homestead Ridg Progress	
Association	Page 11
Chuditch discov at Lowlands Nature Reserve	
Resources	Page 12

Look out for: star of Bethlehem Page 12

Urban Nature Update

By Julia Cullity

This issue marks the beginning of the new Department of Biodiversity, Conservation and Attractions. Whilst our contact details have changed, Urban Nature will continue to provide technical advice and on-ground support for land managers working to protect, manage and restore bushlands and wetlands in the department's Swan region and beyond.

We continue to work on our web app <u>Find a conservation</u> group which helps link people

to local conservation groups and currently maps 164 groups in the department's Swan region. This includes 149 friends groups who collectively manage 35,000ha of local bushlands and 18 regional groups. There are many more groups and we would love to include you too, so please get in touch. We also encourage existing groups to contact us with updates as your details change. We now have an opportunity for you to include a link to your facebook page and you may also want to update your 'about' description.

Spring Bushland News

Spring *Bushland News* contributions should be sent to <u>Urban Nature</u> by **8 September 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.

This publication is available in alternative formats on request. ISSN: 2206-3536

Restoration of fringing vegetation along the Serpentine River at Lowlands

By Kate Brown

Urban Nature has been involved in the management of Lowlands Nature Reserve since 2006 with the commencement of a project addressing management of arum lily invading the fringing vegetation along the Serpentine River. Monitoring over a number of years indicated little regeneration of native plant communities where the arum lily had been controlled and smallscale fire trials indicated low native seed bank. Secondary invasion of annual weeds and grazing by western grey kangaroos were also part of the problem. In 2015–16 with funding from Peel Harvey Catchment Council, Parks and Wildlife established a series of plots, 50 per cent of them fenced, with dense plantings of a local understory sedge Lepidosperma persecans.



Fenced and unfenced plots of Lepidosperma persecans along the Serpentine River, Lowlands, April 2017, demonstrating the impacts of kangaroo grazing on restoration work. Photos – Kate Brown.

The aim was to establish a native cover that will displace annual weeds and at the same time, gain an understanding of the impacts of grazing in the fringing vegetation. Results of trials indicate grazing by western grey kangaroos is having a serious impact on efforts to restore fringing vegetation. Dense riparian vegetation is critical habitat for the chuditch, recently recorded in Lowlands, and also critical for providing habitat and improving water quality for a range of threated aquatic fauna including Carter's fresh water mussel, pouched lamprey and rakali.



Recent research on Penguin Island was the subject of a workshop for Parks and Wildlife staff and Penguin Island volunteers. Ongoing studies and research results were presented, leading to a discussion of management implications. This was followed up by a field trip to some of the study sites. Photo – Rebecca Ong.

(Caratasta
	Contacts
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This publication is available in alternative formats on request. Current and archived issues of *Bushland News* are available at <u>www.dpaw.wa.gov.au/bushlandnews</u>

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bushland weedwatch



Eucalyptus grandis is a tall straight-trunked tree from the eastern states but often planted in parks and larger properties around Perth. Here is a specimen on Canning Highway, Como.

Rose Gum (Eucalyptus grandis)

By Vanda Longman and Karen Jackson

A recent observation of weedy eastern states' eucalypt saplings after a hot fire in Jandakot Regional Park prompted some quick action by Parks and Wildlife Services. *E. grandis* was noted to be particularly prolific and is highlighted here as a species to watch out for.

Identification & biology

E. grandis is commonly called rose gum or flooded gum but is not related to the WA native flooded gum



bushlandnews

E. grandis' distinctive exserted, inward-curved valves.

(E. rudis). An impressive tall tree from wet forests in near coastal New South Wales and Queensland, it usually grows to 55m but has been known to exceed 70m, hence its scientific name grandis. With a single straight trunk and end-weighted crown branches, the tree forms a rough, brown bark stocking to 2m up the trunk and is smooth and white or silvery-grey above. It is very fast growing and in plantations seedlings have been recorded growing 7m in their first year. It doesn't have a lignotuber but coppices vigorously when young. The fruit is distinctive with four or five exserted, inward-curved valves (picture). A prolific seeder, *E. grandis* germinates readily (up to 35,000 germinants per 10g seed) and can hybridise with other eucalypts. It is mainly considered fire sensitive and is tolerant of a wide range of pH, soil texture and rainfall (725–3500mm annual rainfall) conditions.

CASE STUDY

Many thousands of seedlings germinated at Taylor Gibbs Reserve after a hot fire in 2014. They were discovered, three years after the fire, already 3m tall, becoming too big to hand pull and some specimens had already flowered and set seed. Most of the saplings were confined to a degraded, seasonally damp Melaleuca preissiana community, but individuals were also noted in the adjacent banksia woodland. Mature specimens within the reserve were basal barked as they were the main source of the seed creating the current infestation and these trees needed to go!

A trial was done to see if just cutting saplings off at ground level without applying chemical would kill the plants but 95 per cent of these resprouted within three weeks. The saplings are now methodically being basal barked, a technique resulting in total mortality without the need to fell the plants which would lead to an increased fuel load.



Major outbreaks of weedy eastern states eucalypt species occured in Jandakot Regional Park after the 2014 fire. These included a thicket of E. grandis saplings which, after an unsuccessful trial to control using loppers, are now being controlled by basal barking.

Impacts

E. grandis has only recently been observed behaving as a weed in WA and then only in seasonally damp soil or high rainfall areas after fire. Its preference for damp conditions, the mass seed release during fire, and the rich ash bed create the right environment for prolific germination. This profusion of seedlings after fire prevent the regeneration of native vegetation. Allowing these potentially very tall trees to establish in nature reserves would result in serious changes to plant community structure since they would tower over the much lower woodlands, including our threatened banksia woodlands.

Control methods

Seedlings and smaller saplings can be handpulled or dug out removing all roots. For bigger trees apply 250 ml Access® in 15 L of diesel to basal 50 cm of trunk (basal bark) or cut and paint with 100% glyphosate or drill and fill with 50% glyphosate. For any resprouting, foliar spray with 1.5 % glyphosate or 4mL/1L triclopyr. Monitor the site for seedbank recruitment, especially after fire. Read the manufaturers' labels and material safety data sheets before using herbicides. For more information consult the <u>APVMA</u> to determine the status of permits for your situation or state.

Contact: Karen Jackson, Parks and Wildlife Services, 9442 0317 or <u>email</u>.

Winter 2017

econotes

Peel Harvey Catchment Council taking action against feral cats

By Luke Rogers

The Peel-Harvey Catchment Council (PHCC) and Parks and Wildlife Services were excited to host Australia's Threatened Species Commissioner, Gregory Andrews, in Western Australia this April to launch two new exciting projects in the upper Peel-Harvey Catchment. The projects focus on feral animal control, specifically feral cats. To date feral cats endanger at least 142 native species, more than one third of our threatened mammals, reptiles, frogs and birds.

Included in this list are two threatened native mammals, the numbat (*Myrmecobius fasciatus*) and the woylie (*Bettongia penicillata ogilbyi*). The proposed Dryandra Woodland National Park is home to one of the few remaining natural populations of both species and Parks and Wildlife Services under its wildlife recovery program *Western Shield*, is working to maintain healthy populations through feral predator baiting and the building of predator proof enclosures. However monitoring has indicated feral cats and foxes are still coming into the park from adjacent farmland, often feeding on the small mammals that reside there. Fortunately neighbouring landholders are working with the department and the PHCC to undertake feral animal control on their properties through support offered under this new project, Farmers 4 Fauna. The project encourages and supports private landholders neighbouring Dryandra Woodland to help reduce feral animal numbers.

The second project involves a partnership with PHCC and the Shire of Cuballing to undertake feral cat monitoring and trapping at the Popanyinning Waste Disposal Site. The project was a short term trial, and has now been completed with results exceeding expectations. A total of 16 feral cats were caught across four nights of trapping (total of 80 trap nights) with the majority caught in the Popanyinning tip and a few more caught at the Cuballing waste transfer station. Given the success of this trial the PHCC are hopeful other local governments will look at similar cat control activities within their landfills.

Contact: Jane O'Malley, Peel-Harvey Catchment Council, 6369 8800 or <u>email</u>



On the 6th of April over 30 landholders, local and state Government partners and the Threatened Species Commissioner gathered at Barna Mia Animal Sanctuary to learn more about Farmers 4 Fauna and engage with the presenters from DAFWA, Parks and Wildlife, Project Numbat and PHCC. Attendees were also treated to a barbeque dinner and free night walk of Barna Mia to glimpse some of the small mammals that live across Dryandra Woodland. Photo-Kate Barr



Vivienne and Morten Hansen speaking at the six season walk. Photo – Sharon Munro.

Six things we learned from the Bunuru Six Season Walk

By Diana Neuweger

Throughout 2017 Perth NRM are hosting a series of community walks during each of the Noongar six seasons. These walks are guided by Noongar Elders Vivienne and Morten Hansen and provide the public with a way of learning about Noongar culture and ecological knowledge.

The first walk in the series proved very popular, with those attending left with a greater understanding of Noongar traditions. Six things we learned from this walk were:

- **Koomool** (possum) were a favourite food of the Bunuru season, because during this season the possums were eating blossoms of the eucalyptus that had a sweet taste and this changed the flavour of the possum meat.
- Similarly **ninyarn** (echidna) were more regularly eaten during the winter or **Makaru** season, when they were predating on less acrid tasting ants.
- The blossoms of eucalyptus plants were soaked in water, overnight to create a tasty cordial for drinking.
- Black boy gum was not only used as traditional glue for **kitj** (spears) but the gum was ingested when a person had diarrhoea to relieve the symptoms.
- Eucalyptus leaves and the vapour they created were used to help with respiratory ailments.
- The Christmas tree (*Nuytsia floribunda*) is the tree associated with spirits and where spirits would stay in the landscape.

The six seasons play an important role in the yearly cycle of resources and travel for the Noongar people and each walk looks at a difference area, exploring the food resources, the medicines available and how the land was used during these times.

Our next six season walk will be in **Makaru**, on 5 July at Forrestdale Lake. If you want to learn more about Noongar culture, food and medicines <u>book</u> your place on one of walks. The walks are funded by the National Landcare Programme.

Contact: Sharon Munro, Perth Region NRM by email.

Great Cocky Count 2017 By Adam Peck



The team at sunset just after the birds arrived at the roost. This year they counted 3,528 Carnaby's cockatoo as they came into roost in the pine plantation east of Yanchep National Park. Photo – John Clarke.

The <u>Great Cocky Count</u>, a long-term citizen science survey where volunteers count black cockatoos on a single evening as they come into roost, was a great success again this year. Around 900 volunteers registered and surveyed 468 roost sites. What an incredible effort and thanks to all those involved. The birds turned up for many (but not all, alas) of our counters. The count set records on most fronts:

- 17,457 white-tailed black-cockatoos (both Carnaby's and Baudin's) at 124 occupied roosts (10,248 on the coastal plain, 2,180 in the Perth Hills and 5,029 in regional areas)
- 2,989 forest red-tailed black cockatoos at 95 occupied roosts
- A count high of 261 forest red-tailed at a single roost in Floreat
- A record count in regional areas with 5,029 white-tailed counted at 55 occupied roosts
- 53 new white-tailed and 35 new forest red-tailed sites confirmed.

These numbers mean that we counted approximately 30 per cent of all black cockatoos in the south-west of WA on a single night! The large numbers of birds counted does not necessarily mean that black cockatoos are flourishing. It most probably reflects the fact that we are getting better at locating and counting roosts with larger numbers of volunteers.

The mega roost discovered last year east of Yanchep National Park in the pine plantation is still active, with 3,528 Carnaby's counted. And 73 per cent of all Carnaby's counted on the coastal plain roosted within 1km of the Gnangara/Yanchep/ Pinjar pine plantations. This is higher than previous years.

Forest red-tailed appear to be expanding their numbers on the coastal plain. This year 1,934 were counted roosting compared to just 771 last year. This is good evidence that the birds are not only flying west to feed (on Cape lilac and more), but they are staying overnight.

The report will hopefully be launched at the <u>WA Threatened</u> <u>Species Forum</u> in Geraldton, 7-8 September. Thanks again to all our dedicated volunteers, we hope to see you back again in 2018.

Contact: Adam Peck, Birdlife Western Australia by email

Environmental community event a hit with volunteers By Abi Smalley

Perth NRM's first Living Landscape's Conference was a success with more than 150 community volunteers and organisations attending the June event at the Kalamunda Performing Arts Centre. Funded through a State NRM grant, this year's event was supported by the Shire of Kalamanda, which provided the venue. The aim of the day was to bring together like-minded individuals to meet, share stories and celebrate their work sustaining our natural environment.

Opening the conference renowned WA neuroscientist Professor Lyn Beazley inspired delegates on the importance of getting on board to help with the growing number of environmental issues that are affecting our region. Having helped set up the Dolphin Watch program in 2009 to encourage individuals to monitor the health of the Swan and Canning Rivers, with particular reference to the health of our dolphins, Professor Beazley spoke about how everyone can interact with science through the reporting and monitoring of the things they see, from marine animals to the variety of flora and fauna specific to our region. "The people power behind citizen science is crucial to increase our knowledge and help develop appropriate environmental research," explained Professor Beazley.

Simon Cherriman, ornithologist and wildlife filmmaker, entertained the audience after lunch with his knowledge of Noongar culture and his work with the local black cockatoos and wedge tailed eagles. During his back to basics, bare footed talk, it was easy to see his love of these birds as he spoke of his upbringing and his work with the community.

The rest of the day was dedicated to community members, with presentations highlighting the diverse range of projects being undertaken and the efforts to succeed in these areas, with some amazing before and after photographs capturing their achievements. Presentation topics included Scarborough's coastal dune restoration project, seed ecology, strengthening the ecological values of Alfred Cove, removal of feral pigs, equine land care and targeting weed species and revegetation at Blue Gum Lake.

Perth NRM also launched its working relationship with Gaia Resources, offering the mapping and data collection tool <u>GRID</u>. This is being offered free of charge to community groups and comes with ongoing technical support provided by Gaia Resources. For those individuals and groups new to mapping tools or for anyone wanting a refresher Perth NRM can organise training sessions, again at no cost.

Contact: Abi Smalley, Perth Region NRM by email



Simon Cherriman and Lyn Beazley, keynote speakers at the Living Landscapes conference. Photo – Erin Devlin.

Winter 2017

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 Herdsman 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 and Friends of Star Swamp. Fourth Saturday of each month. Meet at the Henderson Environment Centre in Groat St, North Beach.

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 8.30am-10.30am

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 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.

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.

Saturdays, Sundays 9am-12 noon

M 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, Decourcey 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 9.45am-12 noon

Bushcare activities with the Friends of Piesse Brook. Third Sunday of each month. Phone Gerry 9293 2517 or email Bridget.

undertakes regular work mornings throughout the year on Sunday mornings. Contact 9258 7301 or email.

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.



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-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. 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 7.00pm 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 3 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.



Please send us your July, August and September activities and events by 8 September 2017



Sundays

Wilson Wetlands Action Group





bushlandnews

July

2 Sunday 9am–12 noon Planting Tom Bateman Bushland, Thornlie. Meet on closed section of Wilfred Rd. AGLG.

2 Sunday 9.30am

WA Naturalists **bushwalk** Kitty's Gorge, **Serpentine National Park**. Meet Buckland Rd. carpark, call Lutz 9243 6168.

4 Tuesday 9.30am–12 noon

Basking Bobtails and Beautiful Beasts 2 at Native Animal Rescue Malaga. EMRC.

5 Wednesday 10am–2pm 12 Wednesday

Passionate About Possums workshops designed for families with a tour of Kanyana Wildlife Rehabilitation Centre, Lesmurdie and meet some of the animals. Lunch provided RSVP essential. BS4Y.

5 Wednesday 9.30am

Noongar Six Seasons Walks learning about the yearly cycle of travel and resource collection for Noongar people. Makaru takes you to Forrestdale Lake, Forrestdale. Register.

6 Thursday 8am Birdwalk Little Rush Lake, Yangebup. Meet near the playground on the west of lake off Grassbird Loop. Birdlife WA.

6 Thursday 9am–11am Planting Austin Bay Nature Reserve, South Yunderup followed by morning tea. Meet junction of Wellya Cr and Murray Waters Blvd. RSVP Julia 9442 0320 or email.

7 Friday 9am–1 pm Managing the Swan Region's Urban Forests for the Future, Tuart Hill Community Centre. \$30 bookings. Perth NRM

7 Friday 7.30pm Dune Mobility and Geohazards by Michael Freeman. WA Nats

9 Sunday 9am–12 noon

Planting Araluen walk trail along the Canning River with Roleybushcare. Meet at track entrance off Thompson Rd. AGLG.

12 Wednesday 10am–2pm Passionate About Possums workshops designed for families with a tour of Native Animal Rescue, Malaga and meet some of the animals. Lunch provided RSVP essential. BS4Y.

Registration/contact details

AGLG Armadale Gosnells Landcare Group. Look for the AGLG sign at the meeting point. Call 0413 883 565 or 0412 713 582 or check Facebook.

BS4Y Bush Skills 4 Youth RSVP 9424 2216 or <u>email</u>.

EMRC Eastern Metropolitan Regional Council RSVP 9424 2216 or <u>email</u>.

15 Saturday 9am-12 noon Planting Goolamrup Reserve,

Kelmscott along the Caning River. Meet near the footbridge. Park on the verge near corner of Buckingham and Roberts roads and follow the concrete track. AGLG.

15 Saturday 8.30am Birdwalk Lightening Swamp,

Noranda. Meet at the gate on the south east on Della Rd. Birdlife WA.

15 Saturday 9.30am

WA Naturalists <u>excursion</u> to Mt Observation, **York**.

16 Sunday 9.30am WA Naturalists bushwalk Yangebup Lake. Meet Parkes St, Yangebup. Call Sue 9414 9417.

20 Thursday 9am–12 noon Planting Palomino Reserve, Armadale along the Wungong River. Meet at the end of Poad St (west of Lake Rd). AGLG.

21 Friday 9.30 am–12 noon

Improving governance and management of environmental groups build skills to better manage your friends group, Bayswater Drill Hall. Perth NRM.

23 Sunday 9am WA Naturalists beach sweep,

Cottesloe. Meet playground near little groyne, Beach St. Call Maureen 0435 836 647.

23 Sunday 9am–12 noon Planting Palomino Reserve, Armadale along the Wungong River. Meet at the end of Poad St (west of Lake Rd). AGLG.

29 Saturday 9am–12 noon Planting Rushton Park, Kelmscott along the Canning River for National Tree Day with the City of Armadale. Meet at Rushton Park. AGLG.

29 Saturday–30 Sunday Basic Course for Wildlife

Rehabilitation for anyone in the community interested in the rehabilitation of sick, injured or abandoned native wildlife. \$210– \$250. Parks and Wildlife Keiran McNamara Science Conservation Centre, 17 Dick Perry Drive Kensington. <u>Register</u>.

30 Sunday 9am–12 noon Planting Astley Reserve, Gosnells along the Canning River

for National Tree Day with the City of Gosnells. Meet off Astley St near Verna St. **AGLG**.

Birdlife WA All walks are free, no need to book. Call 9383 7749 Monday-

Friday 9.30am–12.30pm or <u>email</u>. **Perth NRM** by <u>email</u>.

WA Nats Hew Roberts Lecture Theatre, Clifton St Nedlands. 30 Sunday 9.30am WA Naturalists <u>bushwalk</u> Ghost House Trail, **Yanchep** National Park. Meet Lakeview carpark, call Cheryl 9305 0322.

August

6 Sunday 9am–12 noon Hand weeding veldt grass Shepherd Court Bushland, Harrisdale. Meet at the end of Shephard Court. AGLG.

9 Wednesday 1pm–4pm Seed Collection Information Session about seed collection methods, standards, storage, and more. Perth NRM.

13 Sunday 9am–12 noon Planting Hall Road Bushland, Roleystone with Roleybushcare. Meet at Hall Rd. AGLG.

23 Wednesday 9.30am–1.30pm Post Bush Fire Management seminar on key environmental decisions following a bush fire, Mundaring Civic Area. Perth NRM.

24 Thursday 8.00am Birdwalk Manning Lake, Spearwood. Meet at the carpark on Azelia Rd, opposite the museum and west of the lake. Birdlife WA.

27 Sunday 8.00am Birdwalk Queens Park Regional Open Space, Cannington. Meet at the gate opposite 261 Station St entering from Welshpool Rd or Luyer Ave. Birdlife WA.

27 Sunday 9am–12 noon Planting Homestead Park, Thornlie along the Canning River. Meet at the Community centre on Glenbrook Rd. AGLG.

September

1 Friday 7.30pm The rakali (native water rat) by Geoff Barrett. WA Nats

6 Wednesday 9am–12 noon Hand weeding veldt grass Shepherd Court Bushland, Harrisdale. Meet at the end of Shephard Court. AGLG.

6 Wednesday 9.30am Noongar Six Seasons Walks

learning about the yearly cycle of travel and resource collection for Noongar people. **Djilba** takes you to **Forrestdale Lake**, Forrestdale. <u>Register</u>.

14 Thursday 7.30am

Birdwalk Star Swamp, North Beach. Meet at the end of Mary St Waterman. **Birdlife WA**.



Highlights

9-14 July 12th

International Mammalogical Congress, Perth Convention and Exhibition Centre, Perth. <u>Registrations</u>.

4–7 & 11–14 July

Rio Tinto **Earth Assist** school holiday program for students wanting volunteer conservation activities in Perth. Contact 9335 2777 or <u>email</u>.

18–20 July

Water Sensitive Cities Conference, Perth Convention and Exhibition Centre. <u>Registrations</u>.

12–20 August

National Science Week festivals, activities and events across Australia. <u>Visit</u> 29–31 August

State NRM and Coastal Conference 2017 Adapting in a changing world. Curtin University, Bentley. <u>Registrations</u>

5 September

Bunbury Kids Teaching Kids Conference, Cooinda Primary School, Bunbury. Contact Jeffery Scott

7–8 September

WA Threatened Species Forum, Geraldton. NRM WA and DPaW events

14–15 September

Perth and Peel Kids Teaching Kids Conference, Mandurah Sailing Club and Baldivis Childrens Forest. Contact <u>Tarnee</u> <u>Rutherford</u>

23-24 September

BioBlitz 24 hour event that focuses on finding and identifying as many species of plants, animals, microbes, fungi and other organisms as possible. <u>Bunjil Rocks,</u> <u>Wingedine Nature Reserve</u>

29 September

2017 Dieback Information Group **DIG conference**, The Boulevard Centre Floreat. <u>Visit</u>.

8 Sunday–14 Saturday October Earthwatch eco-tourism expedition Project Manta Ningaloo Reef. <u>Visit</u>.

15–19 January 2018

Australian Native Plants Society (Australia) biennial conference Grass Roots to Mountain Tops, Hobart. <u>Visit</u>

17 Sunday 9am-12 noon

Bushcares Major Day Out Mary Carroll Lake, Gosnells with the Friends of Mary Carroll Wetlands and the City of Gosnells. Meet at Eudoria St carpark AGLG.

17 Sunday

Bushwalk Kensington Bushland. Contact Narelle by <u>email</u>.

20 Wednesday 1.30pm-4pm Managing Asid Sulfate Sails

Managing Acid Sulfate Soils in the Swan Region an overview of acid sulphate soils and integration into planning, North Perth Town Hall. Perth NRM.

24 Sunday 7.30am

Birdwalk North Lake, North Beach. Meet at the end of Progress Dr. Birdlife WA.

regional reports

Please send us your regional report (200 words) and a photo by Friday 8 September 2017. Text may be edited in response to volume of submitted reports.

Controlling one leaf Cape tulip and gladiolus at Hepburn Heights Conservation Area

By John Hudson

Hepburn Heights Conservation Area is 20ha of urban bushland with an increasing problem of Cape tulip (*Moraea flaccida*) and gladiolus (*Gladiolus caryophyllaceus*) weeds. Following City of Joondalup success in controlling Cape tulip by wiping with 5g metsulphuron methyl herbicide in 1L of water plus wetting agent, the Friends of Hepburn and Pinnaroo Bushland Inc. applied for a Perth Banksia Woodland Community Restoration Grant for 2014–2016. Our successful grant application included hours of mapping and monitoring by the Friends, funds to engage a herbicide contractor, and commitment from the City of Joondalup to provide advice and weed control.

The project had four main parts:

- weed mapping.
- treating 6-8ha with herbicide to control Cape tulip and gladiolus with grant funds and the City of Joondalup applying herbicide to the remainder of the bushland.
- monitoring by counting the number of weeds in quadrats fixed in position over the period of the grant.

Results in the counting quadrats showed an 84 per cent reduction in Cape tulip over the three years. The City of Joondalup treated an area three times that covered by the grant. A big thank you to Parks and Wildlife and the City of Joondalup.

Contact: John Hudson, Friends of Hepburn and Pinnaroo Bushland Inc by <u>email</u>.



Julia Cullity Parks and Wildlife Services, Michael Hamling and Keith Armstrong City of Joondalup, Ralph Henderson and John Hudson Friends of Hepburn and Pinnaroo Bushland at the Perth Banksia Woodlands Community Restoration Grants at Hepburn Heights. Photo – Emma Reeves, Joondalup Times.

Plant survival in Ken Hurst Park



Great activity at the start of planting. Photo – Eddy Wajon.

By Eddy Wajon

Efforts by the Friends of Ken Hurst Park to revegetate has not been going well, with poor survival experienced in recent projects. We have also tried some new strategies with limited success. Plant survival pre-2014 was 0–50 per cent using standard techniques of digging holes with trowels and surrounding plants with tree guards to protect against kangaroos, provide wind protection, winter warmth and encourage moisture condensation.

In 2016, we planted earlier than usual (May not June/July). We watered from May to September during plant establishment phase, to counter reducing rainfall and warmer days in winter and better prepare for the hot, dry summer. We used four different planting techniques – digging holes with trowels, using Potti Putkis, disturbing the ground first with long shovels, and augering to create 150x500mm deep holes. Planting with the shovels was supervised by Mike Norman from the Friends of Sorrento Beach and Marmion Foreshore who generally achieve survival rates of 90 per cent. With the augering and deep soil disturbance, we expected water and root penetration to be improved.

Monitoring showed average survival of tubestock declined from 78 per cent in December 2016 to 45 per cent in May 2017. The poorest survival, 33 per cent, was of tubestock planted with the long shovel technique but the highest survival, where the soil was augered, was still only 55 per cent. Banksia survival was particularly low (10–40 per cent). There was a high level of self-germination in December 2016. However, by May 2017, most self-germinating plants had fared equally or more poorly than the tubestock. These results are particularly disappointing, considering the substantial summer rain, but is an improvement as previous rounds of planting at this site had less than five per cent survival.

This suggests the critical factor is the environment of the planting area. Important factors could be the following:

- poor soil water holding capacity and water repellency
- nutrient status
- insufficient depth of planting
- kangaroo herbivory.

Leaving bags on plants for 12 months to protect them from kangaroos could also have cooked some over summer.

Contact: Eddy Wajon, Friends of Ken Hurst Park by email.

bushlandnews

Have you ever wondered what species of microbat are visiting your garden?

By Yvette Hitchen and Jim Prince

There are nine microbat species common to the greater Perth region. Though morphologically unique, it can be difficult to identify them without capture. The development of non-invasive identification methods looking at scat samples has been undertaken by Canning River Regional Park Volunteers, LotteryWest, Dr Joanna Burgar and Helix Molecular Solutions.

Microbats sleep during the day and leave their roost in the evening to feed. In the morning, a cling wrap covered PVC table is positioned beneath a bat box to collect falling poo pellets (they look like rat droppings). As soon as possible to avoid contamination, the individual pellets are pushed into a sterile vial and then frozen until delivery to the laboratory.

Using known samples, a genetic reference library and primer pair has been developed for the nine microbat species. Using Sanger sequencing it is possible to identify species from the scat samples



Jim setting up a table to collect the bat poo 4–5m below a bat box. Photo – Pam Agar.

collected. More than 40 scat samples have recently been tested, all of which were identified as originating from the Gould's wattled bat *Chalinolobus gouldii*.

Microbats are gluttons. A high energy lifestyle requires a lot of food, but what are they eating? Using High-Throughput Sequencing is the next stage of the <u>investigation</u>.

Contact: Jim Prince, Canning River Regional Park by <u>email</u>.

Funding opportunities

State NRM 2017–18 Community Action Grant between \$5000–\$55,000, to support conservation and sustainable resource use activities. <u>Applications</u> close 10 July 2017.

20 million trees funding projects \$20,000– \$100,000 supporting threatened species or communities. <u>Applications</u> close 15 August 2017.

Northern Agricultural Catchment Council assists on-ground management and enhances skills and knowledge. <u>Biodiversity Community Grants</u> \$1000 -\$10,000, likely to open in September <u>Coastal</u> <u>Community Grants</u> \$2000-\$10,000 open mid-July.

Local Government community grants

These local governments provide small grants to their communities which can fund environmental groups' management and restoration projects. Eligibility varies. <u>Armadale</u> closes 30 August, <u>Augusta Margaret</u> <u>River</u> opens 3 July, <u>Belmont</u> opens September, <u>Beverley</u> opens July, <u>Busselton</u> closes 28 April, <u>Cambridge</u> opens August, <u>Fremantle</u> closes 27 July, <u>Gosnells</u> opens August, <u>Joondalup</u> opens September/October <u>Mandurah</u> closes 14 August, <u>Rockingham</u> closes 4 August, <u>Subiaco</u> closes 29 September, <u>Swan</u> closes October, <u>Wanneroo</u> closes October.

Canon Oceania Grants Program – Inspiring Tomorrow! Supports schools and not-for-profit groups addressing social and environmental change with \$5000 of canon equipment. <u>Applications</u> close 4 August 2017.

EMRC 2017/2018 Community Grants support sustainability, social, cultural or recreational projects for the Gidgegannup, Hovea, Parkerville or Stoneville communities. <u>Applications</u> open 1 July.

Celebrations for Chevron Aboriginal Conservation Training Program

By Christine Burtenshaw

The Chevron Aboriginal Conservation Training Program, a partnership between Chevron and Conservation Volunteers Australia (CVA), celebrated the graduation of three new trainees in May. Kyron Dvorak, Ricky Ugle and Kyle Williams have been building their conservation experience, achieving training in practical land management and reconnecting to their country culturally.

During the program they have contributed to achieving conservation outcomes across Perth. They visited and learned from culturally significant sites such as Lake Richmond in Rockingham, and benefited from knowledge shared from cultural mentors including Marissa Verma with Bindi Bindi Dreaming.

On the last day of the program the team was rewarded with a tour of Crystal Cave by Derek Nannup at Yanchep National Park, followed by a celebratory barbeque at Kings Park. The program is designed to up-skill and expand employment pathways for participants and CVA would like to thank Ricky, Kyron and Kyle for their dedication to the program.

Contact: Conservation Volunteers Australia by <u>email</u>.



Kyle, Kryon and Ricky with their Team Leader, Hannah 'It has been a rewarding experience leading this team of passionate and motivated individuals and I look forward to seeing where they go next' Photo – Clemency Whittles

RHDV1 K5 Monitoring and Release Program – Western Australia

By Susan Campbell

The national release of rabbit haemorrhagic disease virus (RHDV) strain RHDV1 K5 occurred during the first few weeks of March this year. The new strain of RHDV represents the first new rabbit biocontrol tool to be made available to land managers in the last 20 years. RHDV1 K5 is a naturally occurring variant of RHDV. The original 1996 release involved a Czech strain which is now widespread throughout Australia. However, many rabbit populations have developed immunity to this original strain and consequently rabbit numbers are again on the rise. Importantly, RHDV1 K5 is expected to 'boost' the biological control of rabbits across the country, with suppression of rabbit populations expected to be greatest when a successful virus release is immediately followed up with conventional control methods.

Through a nationally co-ordinated community participation project, the scale of which was previously unprecedented in Australia, RHDV1 K5 was released at 579 community registered sites across Australia. In WA, RHDV1 K5 was released by authorised individuals, biosecurity groups and land care organisations at 106 sites (see map), with an additional four release sites managed by the West Australian Department of Agriculture and Food (DAFWA).

Since the initial release in March 2017, there have been six confirmed cases of wild rabbits succumbing to the RHDV1 K5 strain in WA (see map); Bridgetown (two cases), Donnybrook, Melyeannup National Park, Esperance and Mandurah. Nationally, preliminary analysis has

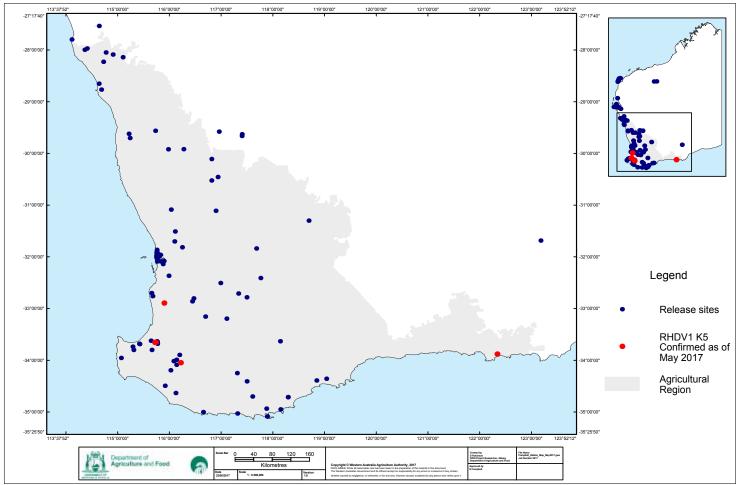
shown a 42 per cent average reduction in wild rabbit numbers at sites where RHDV1 K5 was released. Of the tissue samples sent in via release sites and members of the public, 66 per cent of analysed samples have tested positive for the K5 strain. Whilst this initial data is positive, long term success will be measured and seen through environmental benefits and increased productivity for the agricultural sector.

One factor that may influence the efficacy of RHDV1 K5 in WA is the presence of RHDV2, a virulent strain of RHDV which was confirmed in WA in mid-late 2016. RHDV2 was not deliberately released in Australia and it is not known how this exotic strain entered the country. The strain (present in Europe) was first detected in the ACT in May 2015. In late 2016, outbreaks of RHDV2 throughout WA anecdotally caused large declines in rabbit activity in many parts of the State as well as impacting on domestic rabbits. Consequently, approximately 35 per cent of initial registered sites did not undertake release in WA, primarily due to low rabbit numbers.

Thank you to all of the individuals and groups who were involved with the release of RHDV1 K5 in WA. Further advice on how best to obtain longer term area freedom from wild rabbits by implementing conventional control techniques can be found on DAFWA's <u>website</u> or by contacting the Pest and Disease Information Service (1800 084 881). RHDV1 K5 is now available as a commercial product to authorised users. Contact DAFWA for information on obtaining and handling RHDV products.

Contact: Richard Watkins, West Australian Department of Agriculture and Food by <u>email</u>.

Western Australian Release Sites for the Rabbit Haemorrhagic Disease Virus (RHDV) K5 Strain in March 2017



bushlandnews

groupprofile

Conservation Subcommittee, Homestead Ridge Progress Association

Sonny Rolfe interviewed by Julia Cullity

From the beginning when new residents got together 25 years ago to form the Homestead Ridge Progress Association, their aim has always been to promote the preservation and development of their new community in a special residential zone in Wellard in the City of Kwinana. With larger block sizes and regulations for preservation of native vegetation, residents were drawn to the area and formed the Conservation Subcommittee within the progress association to help keep it this way.



Homestead Ridge Progress Association meets monthly and its Conservation Subcommittee works to conserve the natural values of the private land and public reserves. They organise community activities such as weeding and planting in the reserves, neighbourhood days and contribute to fauna studies such as possum tracking, quenda counts and cockatoo counts in their back yards. Anyone can take part, and whilst based in Homestead Ridge, they welcome people from surrounding areas and often branch out to undertake conservation work in neighbouring suburbs.

The rejuvenation of Wellard Park is a project that the subcommittee is very proud of. What was once an abandoned limestone quarry has been revegetated with thousands of plants. Over the years, with great help from the City of Kwinana, more than 2500 trees have been

established with extensive understory and ground cover plants. As urban development has progressed in the surrounding areas, it's heartening to see many new residents enjoying the area. It will be intriguing to see how much more change has taken place when the time capsule, buried about five years ago, is unearthed in the future.

Other pleasing successes have been reducing the impact of arum lily in the adjacent Leda Nature Reserve following 10 years of herbicide spraying by mainstays Sonny and his wife Jan, and hand removing Geraldton carnation weed and perennial veld grass, and most recently the threat of veld daisy, from Crossroads and Weaver reserves.



Sonny Rolfe and Lynne Tan removing stakes and bags from last year's planting at Blacksmith Drive and Leda Boulevard in Homestead Ridge. Photo – Robina Ellis.

A new project the subcommittee is excited about is the rehabilitation of five sumps which help cope with the drainage from this hilly subdivision. Conversations have begun with council to replant and maintain the sumps with local and other Western Australian natives. The plan is to increase amenity and habitat values for what together would be more than 2ha of currently overlooked and under-utilised land.

Like many groups the progress association faces the challenges of finding new members especially younger people and a new challenge has been fundraising to cover administrative costs such as public liability insurance. They would like to thank the sponsors who have helped with providing grants toward the cost of plants;

Fresh news! Following on from our articles on chuditch and Lowlands Nature Reserve in the last issue of <u>Bushland News</u> Parks and Wildlife have captured chuditch both on camera (thankyou Rivers 2 Ramsar funding) and in cage trapping. This sighting is the first at Lowlands since 2000. It's a good sign the species is persisting and highlights the importance of fox control using 1080 in protecting threatened fauna. Photo – DBCA.



Kwinana City Council Community Fund, PEET The Village at Wellard and Bendigo Bank, and are always on the lookout for more financial help. Opportunities to meet up with the group will be coming up this winter and spring with organised planting and weeding days. Check the group's Facebook page for any upcoming events.

Contact: Sonny Rolfe, Conservation Subcommittee, Homestead Ridge Progress Association, Kwinana Citizen of the Year 2014 and singer/songwriter by <u>email</u>.

Resources

Perth plants: a field guide to the bushland and coastal flora of Kings Park and Bold Park. Barrett, Russell and Eng Pin Tay. *CSIRO Publishing*, 2016. \$50.This second edition of the field guide



Research

1674.

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V, White D, Rudman T, Arentz F, Ota N and

Hardy GE StJ (2017) Current and projected

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cats are in Australia? Biological Conservation

Bistricer G, Manning AD, Gibbons P (2016)

boxes cannot mimic the value of large trees

for hollow-nesting birds Restoration Ecology

MJC, Crane C, Dunstan WA, Brigg F, Andjic

contains 22 additional species

and updated photography of all 778 plant species known to occur in the bushlands of Kings Park and Bold Park.

Plant life of Southwestern Australia. Adaptations for Survival

Groom, Philip and Lamont, Byron, De Gruyter, 2015. An open access <u>ebook</u>. focusing on the survival mechanisms, adaptations and ecology of the flowering plants of the south west to fire, summer drought, nutrient-poor soils, pollination and seed dispersal agents.

Lookout for Star of Bethlehem

By Julia Cullity

Star of Bethlehem or the blue tinsel lily (*Calectasia narragara*) is a common winter-flowering, small shrub of woodlands and heaths in the Perth Hills and Swan Coastal Plain. The six petals spread out in a star-shaped pattern and are a metallic blue or purple with bronze margins which fade to white. At the centre of the flower are six yellow stamens which form a tube that changes colour to orange-red with time. *Calectasia* comes from the greek calos for beautiful and ectasia meaning stretching out and narragara is a composite Noongar name for star. The less than meter high shrubs can have many flowers in different ages and therefore colour combinations and with an extended flowering season, June–September, they often brighten a winter bushwalk.

The genus *Calectasia* is endemic to southern Australia with only one species occurring outside of WA. After research into the genus, eight new species were named in 2001, with a further four in 2015 and as a result many of the species share the same common names. Its close relatives in the Dasypogonaceae family include the kingia and pineapple bush (*Dasypogon bromeliifolius*).

Photo – Kate Brown.



Are your details correct? To continue your subscription when you change your email address, update your details on our <u>webpage</u>. Subscription is free.

Meek P, Ballard G, Fleming P, Falzon G (2016) Are we getting the full picture? Animal responses to camera traps and implications for predator studies <u>Ecology</u> and Evolution 6(10), 3216–3225.

Marlow NJ, Thomas ND, Williams AEA, Macmahon B, Lawson J, Hitchen Y, Angus J, and Berry O (2015) Lethal 1080 baiting continues to reduce European Red Fox (*Vulpes vulpes*) abundance after more than 25 years of continuous use in south-west Western Australia. <u>Ecological management</u> and restoration 16,131-141.

Film

Secrets at Sunrise documentary that follows a team of wildlife champions working to bring back Western Australia's rarest bird from the brink of extinction. Check out <u>screening times</u>



www.dpaw.wa.gov.au