bushland news
urban nature

Issue 87
Spring 2013
Time of Djilba and Kambarang in the Noongar calendar.

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www.dpaw.wa.gov.au

The Friends of Kings Park's 20th Anniversary

By Tammy Pinkerton

Western Australian native plants lovingly grown by volunteers of the Friends of Kings Park for their quarterly plant sales. Photo – Christian Sprogoe

Sometimes referred to as the 'bush in the city', Kings Park and Botanic Garden's 406 ha provides a much-loved and tranquil recreational area for 6 million visitors each year. As the Friends of Kings Park celebrate their 20 years of friendship with the park, it is an opportunity to reflect on the work of hundreds of volunteers.

Kings Park and Botanic Garden plays a vital role in the conservation, research and education of some of Western Australia's 12,500 native plant species, of which 80 per cent are endemic to WA. The Friends of Kings Park has become an integral part of involving the community in maintaining the park and gardens during the past two decades. They continue to assist with the funding of visitor facilities, educational resources, research projects, conservation projects, restoring bushland and resources for the group.

There are two Bushland Carer programs operating in Kings Park – a weekend and a midweek group. Each has a dedicated and enthusiastic team of Friends that you may see in the park; collecting seed, planting or weeding on a Wednesday or a Sunday morning. They work closely with the bushland staff of the Botanic Gardens and Parks Authority on important restoration sites. Over the years, it has been very satisfying for the bushland carers to see sites previously choked with weeds now having a healthy balance of local plants.

The Growing Friends are another group that work behind the scenes and are largely responsible for the phenomenon that is the Friends of Kings Park Native Plant Sales. What began as a few Friends selling some excess propagated native plants has now developed into a significant fundraising activity for the kings park. The Growing Friends currently produce an astounding 50,000 WA native plants annually, most of which go into suburban gardens. As well as being more suited to our climate and wildlife, many of the native plants grown by the Growing Friends include some rare and endangered species that are not found in commercial nurseries.

There is a great diversity of volunteer groups both in the Friends and within the Kings Park family. Their common passion and commitment to Kings Park, WA's native flora and the community is both impressive and admirable.

If you would like to find out more about our volunteering programs, membership or the native plant sales, please visit our website at www.friendsofkingspark.com.au or call our office on 9480 3643.

Department of Parks and Wildlife

Bushland News *is a quarterly newsletter of Urban Nature, a Department of Parks and Wildlife (DPaW) program to support community involvement in bushland conservation.*

Paganoni field day *By Kate Brown*

Anne Bellman from the Friends of Paganoni Swamp shows restoration work undertaken following the construction of the Perth to Mandurah railway. Photo – Grazyna Paczkowska

The Urban Nature Program held a field day in Paganoni Swamp in early June to highlight the outcomes from biodiversity monitoring after the 2011 autumn prescribed burn. We also visited restoration sites the Friends of Paganoni Swamp have been working on for the past five years. Participants included community volunteers and DPaW officers from across the region. The first stop was in a degraded area on the southern boundary of the reserve where sites had been fenced immediately post-fire. The fenced sites were dense thickets of prickly moses (*Acacia pulchella*) and grey stinkwood (*Jacksonia furcellata*). Unfenced sites were very open with a grazed herb layer and no shrubs indicating that kangaroo grazing was having serious impacts on post-fire regeneration in these disturbed areas. We then visited intact areas in the middle of the reserve, also looking at fenced and unfenced sites. In the good condition bushland the kangaroos didn't appear to be having as much of an impact on post-fire regeneration. However the prescribed burn does appear to have facilitated establishment of a number of weed species in good condition bushland including pigface (*Carpobrotus edulis*) and inkweed (*Phytolacca octandra*).

After morning tea Ayshe Kerimofski, an honours student from The University of Western Australia (UWA) who has been working with Leonie Valentine and Brian Chambers, presented her work looking at the home range of bobtails (*Tiliqua rugosa*) in burnt and unburnt vegetation. Brian Chambers from UWA then presented outcomes of research on diet and food availability for brush-tailed phascogales (*Phascogale tapoatafa*) in Paganoni Swamp. The results suggest there is no significant seasonal change in the invertebrate diet of phascogales, but that the melalueca swamp is providing a significantly greater biomass of invertebrates than tuart/banksia or jarrah/banksia woodland. Finally the Friends of Paganoni showed us some of the excellent restoration work they have been undertaking along the western boundary. Thanks go to everyone who participated in the day, particularly the Friends group who have facilitated and supported the many research projects undertaken in the reserve.

Urban Nature Update *By Julia Cullity*

This issue of *Bushland News* introduces some changes we hope you'll enjoy. We are now printing in full colour. This issue also debuts 'Project snapshot' which will present local research or management projects in a longer report format including methods, results and management implications. Turn to pages 4 and 5 to read about rat control on Penguin Island. Do get in touch if you have a project you'd like to share with our readers. Econote and Weedwatch will return in issues without a Project snapshot.

With our change to the Department of Parks and Wildlife (DPaW), Urban Nature and the Swan Region have relocated to Crawley. Please update our contact details as our address, phone, email and web address have all changed.

With all the changes, I apologise for the late arrival of this issue and the missed opportunity to promote your October events. We aim to be settled in and back on time for our summer issue.

Summer *Bushland News*

Summer *Bushland News* contributions should be sent to Urban Nature at urban.nature@dpaw.wa.gov.au by **Thursday 14 November 2013**. *Bushland News* seeks original contributions. If your submission has been or may be published elsewhere please let us know. Compiled and edited by Jo Tregonning.

This publication is available in alternative formats on request.

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Current and archived issues of *Bushland News* are available at www.dpaw.wa.gov.au/management/off-reserve-conservation/urban-nature/93-bushland-news

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Turtle Oblonga Rescue and Rehabilitation Network Inc

By Ruth Haight

*Juvenile western long-neck turtle (*Chelodonia oblonga*). Photo – D Hunter*

In January 2011 many of the lakes on Perth's coastal plain were either dry or almost so. A mass exodus of western long-neck turtles (*Chelodina oblonga*, also known as *C. colliei*) from a small suburban lake prompted an unprecedented rescue effort.

The large numbers of turtles lost through dehydration, starvation and road trauma as a result of this single event brings home just how quickly an animal which is now considered common might become vulnerable.

On an annual basis, very few turtles are received into wildlife shelters and those which are admitted are invariably trauma cases or found hatchlings. Dealing with a large number of debilitated animals was something for which no-one was prepared or equipped to deal with. In August 2011, after the lakes had filled with water (but not food sources) a second cluster of turtle deaths occurred which led to another rescue effort. More than 100 turtles were saved from the small lake, and in the process valuable information was gained about dealing with a mass rescue.

Threats

In Australia, six of our 28 freshwater turtle species are listed as threatened, with research suggesting that other turtle species may also follow. The causes are varied and multiple, involving illegal poaching of animals and eggs, the introduction of new diseases, pollution of our oceans and waterways with plastics and heavy metals, feral predators, changing weather patterns and reduced rainfall due to climate change, loss of habitat and, in WA, a falling watertable.

Australia's turtles, though better protected than those in many countries, are not free from hazards – in fact, the signs are that introduced predators, drought and the new threat of climate change add up to an uncertain future for Australia's unique turtle species. *C. oblonga* is listed as 'near threatened' on the International Union for the Conservation of Nature's Red List.

The Network

The Turtle Oblonga Rescue and Rehabilitation Network was formed in 2012 to address the lack of knowledge about *C. oblonga* and to consolidate rescue and rehabilitation efforts. Our patron, Dr Gerald Kuchling, is a world authority on turtles and has done much to save many endangered species including WA's western swamp turtle (*Pseudemydura umbrina*).

The Network has a strong veterinary focus and plans to provide community information along with training for both rehabilitators and members of the veterinary profession. Our aim is to ensure that every turtle receives professional and compassionate care. In the short time we have been operating we have come to realise that although the rescue and rehabilitation of turtles is important, so too is community education and habitat protection.

Turtle *Oblonga*
Rescue & Rehabilitation
Network

Members are involved in the care and rescue of turtles, acting as 'turtle taxis', providing turtle rehabilitation training and community information (verbal and written), as well as consultancy services to the community and all levels of government.

For more information please visit our website www.turtleoblonganetwork.org.au

Karen releasing a turtle she has nursed back to health. It is quite an emotional event as the turtles just vanish and we are left holding our heart. Photo – courtesy of Turtle Oblonga Rescue and Rehabilitation Network

Control of black rats (*Rattus rattus*) on Penguin Island

By Karen Bettink

Penguin Island is a popular recreational and international tourist destination and also supports a range of iconic wildlife species. In late 2011 there was evidence of black rats (*Rattus rattus*) on the island and an attempt to eradicate the population was considered vital for the protection of the island's biodiversity, particularly seabird colonies.

Background

The 12.4 ha Penguin Island is part of Shoalwater Island Marine Park in Western Australia. It is home to an important breeding colony of little penguins (*Eudyptula minor*), resident colonies of pelicans (*Pelecanus conspicillatus*), a range of migratory tern species (*Sterna* spp.) and Australian sea lions (*Neophoca cinerea*). House mice (*Mus musculus*) have been present on the island for many years.

The incursion of black rats to the island was most likely via stowaways in construction materials, in boats or by movement across shallow water. Black rats are one of the most widespread and destructive invasive animals in the world. Unlike house mice, they pose a significant threat to wildlife–directly through predation, as well as through competition and ecosystem transformation, and are major vector of diseases that affect humans and wildlife. They are considered the most problematic and destructive invasive rat species because of their high dispersal and reproductive rate, generalist habitat requirements and omnivorous diet, consuming anything from seeds and vegetation to reptiles, invertebrates, birds and small mammals.

Impacts on Penguin Island biodiversity

By late 2012 there was a notable decline in little penguin breeding on the island, in part due to changes in food availability but also due to predation on eggs, chicks and fledglings. Bridled terns (*Sterna anaethetus*) normally rear 2,000 fledglings annually on the island, however in 2012/13 only eight were recorded. Several bridled terns needed to be euthanised due to bite injuries. Observations of scarring and tail damage to large King's skink (*Egernia kingii*) were common. Rats were also observed consuming fruit, seeds and ring-barking vegetation.

Methods

An initial baiting program of 10 bait stations (10 L buckets) was set up around the main island infrastructure in May 2012. Deployment of remote cameras showed rats had become widespread and an intensive rat eradication program was planned.

In July, Commonwealth approval was sought to use X-Verminator (Brodifacoum 0.05g/kg) off-label. Unlike most Australian rodent baits, it does not contain the bitter wax coating designed as a deterrent, which can provide a sub-lethal dose and lead to bait aversion. The application included an Environmental Risk Assessment to non-target species. Permit conditions included a strict timeframe for checking and removal of rodent carcasses to minimise secondary poisoning by native species. Animal Ethics Committee approval was required to undertake monitoring of fauna on the island. Approvals were received and baiting started on 14 January 2013.

*Black rat (*Rattus rattus*) activity at a baiting station during an eradication program on Penguin Island. Photo – Karen Bettink*

*The agility of King's skink (*Egernia kingii*) to access baiting stations targeting black rats was a design challenge during the rat eradication program in 2013. Photo – Karen Bettink*

Bait station design

Various bait station designs—each with five non-toxic bait blocks (~25g each) threaded on a tailored pin and sufficient sand to weigh down buckets—were tested with remote cameras across 32 days (~3,000 trap nights). Designs included buckets with and without handles, hole heights of 18–22 cm and hole diameters of 40–50 mm.

Skinks proved to be incredibly agile, capable of climbing vertical steel pickets, launching into bucket holes from objects or by balancing on their tails. Buckets raised 20–30 mm on sandbags (hole height of 22 cm) excluded the majority of skinks except for large adults. To exclude these, 70 mm long PVC sleeves were inserted into the bucket holes. This design was deployed across the entire island.

Review of remote camera images revealed sub-adult and juvenile rats were having difficulty accessing holes with PVC sleeves versus those without. The decision was made on 7 February to remove sleeves from all stations. This also led to adult skinks gaining greater access.

Baiting

Three hundred and fifty stations were set on a 20 m grid interval across the entire island and recorded by differential GPS. Where terrain was too rugged to install bait stations, hand broadcasting of X-Verminator pellet bait at nominal rates of 12kg/ha and 8kg/ha (two applications 10–12 days apart) was undertaken.

Initial baiting took two full days. After five days poisoned black rats and carcasses were observed. All stations were rebaited after 10 days. Several stations, sleeves and bait storage containers needed replacing after being chewed through. Five full baitings were required and baits were removed from most stations by 15 April. Several areas were rebaited in May and July following single rat detection.

Monitoring results

To help assess for possible secondary poisoning, over five days a rat and mouse carcass tethering trial was conducted with remote cameras to observe what native species may predate rodent carcasses. Several species showed an interest in carcasses but only Australian ravens (*Corvus coronoides*) took entire mice. King's skinks predated several rat carcasses, however most predation (over 80%) was from other rats.

Three permanent trapping transects (30 Sheffield cage traps and 30 Elliot traps) provided baseline monitoring of rat activity. Traps set over two nights at dusk in January saw captures of rats, house mice, King's skinks and terns. One adult female rat was trapped in April. Trapping in July saw no rat captures, but increased levels of house mice and silver gulls.

Twenty-four inked cards were deployed in April and July in an east-west and north-south transect throughout the island to record tracks. Mice and skink activity only was recorded.

While difficult to estimate the numbers of rats prior to baiting it is likely to have been between 2,000 and 5,000. A total of 123 black rat carcasses were collected and disposed of in deep landfill. The majority of rats are presumed to have died below ground, under vegetation or in inaccessible areas. Eight adult King's skink carcasses were retrieved; the majority in late February/March after sleeves were removed. One specimen was sent for necropsy with a preliminary report confirming death was likely a result of poisoning.

Remote cameras (Reconyx HC500/600) were used to monitor active bait stations and lures. Nine lures made of cylindrical wire mesh with suspended non-toxic bait blocks were secured in place by wire or heavy tent pegs set throughout the island. Lures were refreshed monthly.

Initial camera images showed extremely high rat activity at monitored stations. Events were measured separated by one minute, with the highest activity recorded as 153 events on 22 December 2012. Adult rats dominated bait stations, often with daytime activity recorded. Nights of lower rat activity often saw increased activity of native species, particularly penguins and bridled terns. Rat activity dropped from high levels at the start of January to zero/single events until late July 2013. First records of other species occurred in late March, including a small skink (*Morethia* spp.), marbled gecko (*Christinus marmoratus*) and willie wagtail (*Rhipidura leucophrys*).

*Crested terns (*Thalasseus bergii*) take flight. Photo – Karen Bettink*

Discussion

The project was effective in reducing black rat numbers from several thousand to occasional sightings of single rats during a five-month period. It is not surprising that limited numbers remain, given rat abundance, available food resources and habitat complexity (limestone caves, crevices, thick vegetation). While control has been achieved, eradication is the overall aim and this cannot confidently be declared until two years after the last sign of rat activity. The increase in activity of native species as rat activity fell is a promising sign of steps toward restoring the native fauna community.

Remote cameras were integral to developing station design and to making management decisions. By the start of February it was clear from camera images that sleeves had to be removed to allow smaller rats to access bait stations. Removing sleeves also enabled an increased number of skinks to access baits. Nevertheless off-target species effects were kept to an absolute minimum and within animal ethics approval parameters.

Remote cameras are now permanently deployed to the island to detect any black rat outbreaks or new incursions. Rapid response to these sightings is crucial.

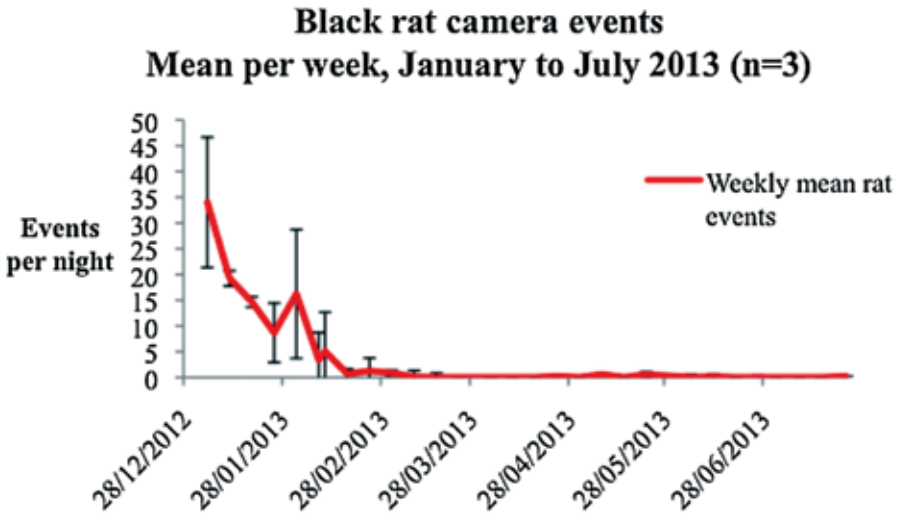

***Figure 1**: Rat activity recorded as mean number of events per night on remote camera over one week intervals from January to July 2013. Separate events were defined on intervals of one minute.*

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 Rutherford (ABBBS Coordinator) on 0438 910 252 or calidris@iinet.net.au.

Saturdays 8am–9am
Guided walks with Friends of **Koondoola**. Second Saturday of each month. Meet Gate 2, corner of 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.

Saturdays 8.30am–10.30am
Bushcare activities with Friends of **Booragoon and Blue Gum Lakes**. First Saturday of each month. Contact Heather 9364 1739 or heja13@bigpond.com.

Saturdays 9am
Bushcare activities with Friends of **Brixton Street** Wetlands. Third Saturday of each month. Meet Alton St, Kenwick. Contact Regina 9459 2964 or tjdrd@bigpond.net.au.

Saturdays 1.30–3.30pm
Bushcare activities with **Mt Henry** Peninsula Conservation Group. Third Saturday of each month. Contact Mavis 0407 447 669 or Mavis.Andrews@aquinas.wa.edu.au.

Saturdays, Sundays 9am–12 noon
Koala maintenance at **Yanchep** National Park. Call Ciara 9303 7771.

Sundays 9am–11am
Work morning with **Wilson Wetlands** Action Group. First and third Sunday of each month. Contact WWAG 9258 7301 or wilsonwetland@gmail.com.

Sundays 8am–9am
Guided walks with Friends of **Marangaroo**. Fourth Sunday of each month. Meet at Gate 3, Decourcey Way.

Sundays 8am–10am
Bushcare activities every Sunday with Friends of **Shenton Park** Bushland. Contact Dani 9381 3470 or bojel@it.net.au.

Sundays 8.30am
Bushcare activities with Friends of **Wireless Hill**. Second and fourth Sunday of each month. Meet at main carpark. Contact Margaret 0402 105 649 or s3mmatthews@hotmail.com.

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
Bushcare activities with **Cottesloe** Coastcare. First Sunday of each month. Visit www.cottesloecoastcare.org for details or contact Robyn on 9384 7668 or info@cottesloecoastcare.org.

Sundays 9.45am–12 noon
Bushcare activities with the Friends of **Piesse Brook**. Third Sunday of each month. Contact Gerry 9293 2517, Bridgett at bhogarth@ozemail.com.au or linda@johnstanley.cc.

Sundays 9am–12 noon
Bushcare activities with the Friends of the **Spectacles** (Kwinana). Third Sunday of each month. Contact Lynda 9439 1928 or outback3@iinet.net.au.

Mondays 8.30am–10am
Bushcare activities with the Friends of **Mary Carroll Lake** (Gosnells). Volunteers also work the fourth weekend of each month. Contact Unice 9398 7126 or unicerobinson@gmail.com

Mondays, Wednesdays, Fridays 9am–12 noon
Bushcare activities and **wetlands walk trail maintenance** with **Yanchep** National Park Volunteers. Call Ciara 9303 7771.

Thursdays 8am–9am
Bushcare activities every Thursday with **Byford** Enviro-Link. Call Kristy 9526 0199.

Thursdays 9am–2pm
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 mary.rayner@education.wa.gov.au.

Conservation Volunteers activity schedule. Free one-day local activities or overnight country trips. Call Jodi 9335 2777 or visit www.conservationvolunteers.com.au

October

26 Saturday 8.30am–10.30am
Foreshore clean-up at Point Walter. Contact **BEAG**.

26 Saturday 9am–12 noon
Native grasses walk and talk. Mahogany Creek Hall. Contact **BSFH**.

30 Wednesday 6.30pm–8.30pm
Wetlands of the Swan Coastal Plain with guest speaker Dr Semeniuk. Mud Hut Community Hall, Kenwick. Light supper. Gold coin donation. RSVP by 28 October Regina 9459 2964 or Trevor 0407 544 679.

November

1 Friday 7.30pm
Great Western Woodlands with guest speaker Judith Harvey. Contact **WA Nats(P)**.

9 Saturday 9am–12 noon
Native Grasses advanced workshop. Mahogany Creek Hall. Contact **BSFH**.

10 Sunday 9am–11.30am
Nature ramble with naturalist Marc Lane at Ellis Brook Valley, Martin. Contact **CoG**.

12 Tuesday 8pm
The Last Patches: conserving threatened ecological communities in WA with guest speaker Val English. Contact **WSWA(P)**.

16 Saturday 8.30am–10.30am
Weeding with the Friends of Bicton Environmental Action Group. Contact **BEAG**.

17 Sunday 7.30am–10am
Breakfast with the birds guided bird walk and breakfast at Mary Carroll Park, Gosnells. Contact **CoG**.

24 Sunday 9am–11am
Guided tour of Black Cockatoo Conservation Centre (Kaarakin). Contact **CoG**.

29 Friday 7pm–9.30pm
Night stalk with naturalist Marc Lane. Mary Carroll Park, Gosnells. Contact **CoG**.

30 Saturday 8.30am–10.30am
Shell bed clean up at Bicton Baths **BEAG**.

December

8 Sunday 9am
Quenda survey at Dianella Regional Open Space. Contact Jo 0408 913 255 or Jo.Taylor@stirling.wa.gov.au.

Highlights

8–11 October
Greenhouse 2013, Adelaide. Conference on climate change science, communication and policy. Visit www.greenhouse2013.com

29 October–1 November 9.30am–2.15pm
Freshwater Festival 2013, Herdsman Lake Wildlife Centre. $15 per child. Bookings 9387 6079 or roger@wagouldleague.com.au

16 November 11am–4pm
Science is FUN Fair, Gravity Discovery Centre Gingin. Rockets, tower climb, music. $10 per person. Bookings 9575 7577 or bookings@gravitycentre.com.au

28–29 November
A Climate of Change AIEA Annual Conference will provide insights on updates to Clean Energy Liability, NGER, NPI, EEO, Sustainability, CFI and Water Accounting. Visit www.environmentalaccounting.org.au

24–27 February 2014
Hydrology and Water Resources Symposium, Pan Pacific Hotel, Perth. Visit http://www.hwrs2014.com/

Bibbulmun Track Foundation events suit all ages and most fitness levels. From guided walks to learning how to cook on a fuel stove. Visit www.bibbulmuntrack.org.au/walk-the-track/events-calendar/

Nearer to Nature events; guided walks, bush cooking, Noongar culture, canoeing, caving, native wildlife and craft. Chidlow, Canning River, John Forrest, Mundaring, Star Swamp and Yanchep. Bookings 9295 2244. Visit www.dpaw.wa.gov.au/n2n

DPaW volunteer programs Visit www.dpaw.wa.gov.au/get-involved/volunteering-opportunities

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.

Registration/contact details

BEAG Bicton Environmental Action Group work in the Point Walter Bush Forever site and along Blackwall Reach. Contact Peter 0439 467 855 or pneesham1@bigpond.com.

BSFH Bush Skills for the Hills Bookings 9424 2216 or environment@emrc.org.au.

CoG City of Gosnells Bookings 9397 3111 or www.gosnells.wa.gov.au/events. Gold coin donation.

WA Nats(P) WA Naturalists Club (Perth) Hew Roberts Lecture Theatre, UWA Extension. Clifton St, Nedlands. Email info@wanaturalists.org.au. $2 door entry.

WSWA(P) Wildflower Society of WA (Perth Branch) Subiaco Community Centre. Email wildflowers.perth@ozemail.com.au.

Please send us your January, February and March 2014 events by Thursday 14 November 2013.

Volunteers needed for cockatoo nesting surveys

We are seeking volunteers to survey Carnaby's nesting sites during spring 2013 to identify the numbers of active hollows at a site. This will provide us with a better understanding of cockatoo distribution during the breeding season and whether breeding effort is increasing or declining. The surveys take place on private properties and reserves in regional areas, with sites ranging from near-pristine bush to solitary paddock trees. Training and a survey guide are provided, and we can team new volunteers with experienced observers. Contact Matt on 9287 2251 or matt.fossey@birdlife.org.au

Funding opportunities

Funding LINK: Online Environmental Grants Guide replaces the popular hardcopy Grants Guide. The website provides a comprehensive, searchable catalogue of environment-focussed grant and funding opportunities available across Australia. Subscription plans start from $5 per month. Visit https://secure.fundinglink.com.au/index.php?next_page=pages/view.php&page_id=20

City of Rockingham Community Development Grants fund community projects including environmental initiatives for the Rockingham community up to $20,000. Funding quarterly. **Closes 6 December 2013**. Visit http://www.rockingham.wa.gov.au/Leisure-and-recreation/Grants-and-awards/Community-grants.aspx

Landowner Biodiversity Conservation Grant Program provides funding to Cockburn landowners for on-ground works that directly relate to the conservation and improvement of natural bushland and/or wetlands on their privately owned property. Up to $3,000 available. **Closes 31 October 2013**. Contact Vicky Harthill on 9411 3444 or customer@cockburn.wa.go.au

Volunteers needed for 'Spring Quenda Count' *By Geoff Barrett*

Since the *2012 Community Quenda Survey*, run by the then DEC and the World Wide Fund for Nature, we have had a continuous flow of new quenda/bandicoot (*Isoodon obesulus*) sightings. Your efforts are greatly appreciated and have helped us to map quenda habitat and identify unoccupied sites into which we can transfer animals that have been relocated. We would now like to track changes in quenda abundance across suburban Perth, and so are planning an annual *Spring Quenda Count*. This will involve recording the number of quenda seen at specific locations, chosen by you, over a number of consecutive days in spring (September to November). If you took part in the *2012 Community Quenda Survey* then standby and we'll be in touch. If you were not involved in the 2012 survey but would like to take part in the *Spring Quenda Count*, then please email Katherine Howard, WWF-Australia at quenda@wwf.org.au

regionalreports

Weeding out garden escapees *By Nicole O'Neill*

The Shire of Kalamunda has been working with residents of Basildon, Ford and Graelou roads in Lesmurdie over the past 12 months to reduce introduced garden escapee weeds from road verges and gardens. Plants such as butterfly bush, French and Spanish lavender, veld daisy, Flinders Range wattle and morning glory were originally planted for ornamental reasons but have spread into bushland and neighbouring properties where they are not wanted. These invasive weeds compete with native plants for space, water and nutrients. The Shire has made native plants available through the Plants to Residents Day scheme to help replace removed garden escapee weeds.

For more information call Environmental Services at the Shire of Kalamunda on 9257 9999.

Shire of Kalamunda Eastern Hills Catchment Management Officer Michelle Yeomans (left) hand weeding veld daisy with Lesmurdie resident Kerry Davies (right). Photo – courtesy of the Shire of Kalamunda.

Please send us your regional report (150–200 words) and a photo by **Thursday 14 November 2013.** Text may be edited in response to volume of submitted reports.

Campaigning for Lake Nowergup *By Sabine Winton*

The Minister for Environment Albert Jacob recently dismissed an appeal for a clearing permit for nearly 7 ha of native vegetation adjacent to Lake Nowergup and Neerabup National Park.

This decision was welcomed by the Lake Nowergup/Carabooda Community group who has been campaigning for four years to protect this important piece of bushland. In his decision, the Minister supported DPaW's (formerly DEC's) position that the vegetation on the site was of excellent condition and was likely to be used by a wide number of fauna species, including foraging habitat for Carnaby's cockatoo. Additionally the Minister's report also concluded that the site contained threatened ecological community '26a *Melaleuca huegelii – M. acerosa* shrublands of limestone ridges' and may provide linkage values between remnant vegetation within the area. Importantly too, the Minister, like the landowner and the community, support a land swap that might see the vesting of this bushland for conservation.

The environmental values of this area has long been known and documented. The

Premier Colin Barnett (centre) with local residents and members of Lake Nowergup/Carabooda Community group, November 2012. Photo – Neil Van Drunen

East Wanneroo Landscape Assessment Study, conducted as part of the *Future of East Wanneroo Report* clearly identified this area as needing protection. The local community has long been promoting the Lake Nowergup/Carabooda valley as an area holding huge potential as a regional open space for the booming northern corridor of Alkimos City which is within walking distance. The Premier Colin Barnett visited the area in October last year to hear the local community's call for a walkway to link the 'bush to the beach'. Building community awareness of Lake Nowergup, the deepest permanent lake on the Swan Coastal Plain, is important. The local community now are working towards establishing a Friends Group to refocus their attention on conservation and education goals. Group spokesperson Sabine Winton is pleased with the outcome and hopes now that the important work of building partnerships between the local community and key government agencies will result in exciting environmental and conservation outcomes for this special area.

For information on the Friends of Lake Nowergup contact Sabine on 0427 608 627 or sabinewinton@gmail.com.

Asian tree sparrows found in Bunbury

Bunbury residents are urged to report sightings of any unusual birds following the discovery of three Asian tree sparrows in Marlston Hill. Photo – Dani Studler

Three Asian tree sparrows (*Passer montanus*) were recently sighted feeding with native birds in local backyards in Marlston Hill, Bunbury. Sparrows are especially attracted to bird-feeding tables, refuse bins, cafés, aviaries and grain storage facilities, often those near sea ports after the birds arrive on ships. Sparrows have the potential to damage cultivated grain and horticulture crops, spread disease and compete with native birds for food. They can also foul buildings through their nesting, roosting and feeding behaviours.

Tree sparrows are a declared pest in WA. They look similar to some finches but are slightly plumper, coloured brown or dark grey with a streaked back, and have a wedge-shaped beak 11–16 cm long.

Any sightings of sparrows or other exotic birds should be reported to the Department of Agriculture and Food's Bunbury office on 9780 6100 or the Pest and Disease Information Service on 1800 084 881.

Lake Mealup Recovery Program *By Peter Wilmot*

There have been big changes at Lake Mealup since we last reported in *Bushland News* 76 (Summer 2010–2011). Lake Mealup was then 80 per cent covered in *Typha orientalis*. Annual drying of the lake, exposing acid sulphate sediments in the lake bed, had caused the lake to become highly acidic. The Lake Mealup Recovery Program, a cooperative venture between the then DEC, the Peel-Harvey Catchment Council and the Lake Mealup Preservation Society (LMPS) with contributions from other agencies, was then in the planning stage.

From 2012, lake water levels have been augmented through construction of a weir in the Mealup Main Drain to divert good quality drainage water into the lake during winter and spring. The lake now holds water all year round. Water quality has significantly improved, with the acidity effectively neutralised. In addition, typha has been virtually eliminated by mechanical and chemical treatments prior to augmentation of water levels, with hand weeding controlling a small amount of regrowth. Waterbirds have also returned to the lake with 26 species observed in spring and summer 2012–2013.

In 2013 DPaW installed a secondary water management structure in the channel connecting Lake Mealup and the Mealup Main Drain. This structure consists of three concrete culverts spanning the channel, with a system of aluminium drop boards which can close the channel to water flow. This additional structure allows finer control of water levels in the lake, and prevents possible ingress of estuarine water when the weir is open. It makes it much easier to manage water flows in the channel than the sandbag barrier used in 2012. We congratulate DPaW, particularly Heidi Bucktin and Craig Olejnik, for getting this structure designed, approved and built in time for drainage diversion this year. Well done!

The LMPS water monitoring team led by Heidi continues to monitor fortnightly water levels and quality. There is still much to do to establish the optimum water level regime and establish native sedge vegetation (the latter has started). But we are on the way, and Lake Mealup is now a functioning wetland again!

For more information on the LMPS call Peter on 9244 3015.

Biological control of rabbits in WA *By Susan Campbell*

Department of Agriculture and Food

Since their introduction in 1859, European rabbits (*Oryctolagus cuniculus*) have had a devastating impact on agricultural production and biodiversity in Australia. Rabbit Haemorrhagic Disease Virus (RHDV – formally known as rabbit calicivirus) was first introduced in 1996 as a biological control in response to a decline in the effectiveness of myxomatosis disease. Unfortunately rabbit numbers are on the rise again throughout the country, triggering a need for researchers to source and release more virulent strain(s) of RHDV.

Research in WA is being undertaken in conjunction with the national RHD-'Boost' program, run through the Invasive Animals Cooperative Research Centre. This program aims to sample rabbits throughout Australia and assess whether individuals have been exposed previously and carry antibodies to RHDV and a related benign form of the virus. Rabbit survey and sampling is currently undertaken at strategic locations throughout the Northern, Central and Southern agricultural regions in WA.

Work is also underway at Whiteman Park where fly samples are collected monthly to determine the role that these insects may play as vectors of RHDV. There is currently little information available on the pathways of transmission of RHDV in the wild.

Rural and metropolitan landholders are encouraged to report any fresh rabbit carcasses discovered on their properties to support research on improved rabbit biological control. Photo – Brian Lukins

WA landholders can assist by reporting any suspected outbreak of RHDV on their property to their local department office. Outbreaks of RHDV would be evidenced by carcasses that show no obvious outward signs of death. The information collected from fresh carcasses will be used to assist with the strategic release of new viral strain(s) in the future. Reports of rabbit carcasses that may have died from RHDV can be made directly to susan.campbell@agric.wa.gov.au or 9366 2301 or to your local Department of Agriculture and Food office.

BAM Act provides a new approach *By Sandy Lloyd*

The *Biosecurity and Agriculture Management Act 2007* (BAM Act) is an important piece of legislation which has been developed in partnership with key primary industry, natural resource management and community groups over several years. It provides a new approach and improved efficiency for biosecurity and agricultural management in Western Australia.

On 1 May 2013, the BAM Act replaced a number of existing Acts and regulations within the Agriculture Portfolio including the *Plant Diseases Act 1914*, the *Seeds Act 1981*, the *Stock Diseases (Regulations) Act 1968* and most of the *Agriculture and Related Resources Protection Act 1976*.

The main purpose of the BAM Act is to establish a modern biosecurity regulatory scheme to prevent serious animal and plant pests and diseases from entering the state and becoming established, and to minimise the spread and impact of any that are already present within the state. The Act also establishes controls in relation to agricultural and veterinary chemicals, fertilisers and animal foodstuffs, and has the capacity to recognise and support industry standards.

The BAM Act is 'enabling' legislation, that is, it enables various things to be done by regulations and other subsidiary regulatory instruments. Much of the operational detail found in the Acts which have been replaced is now prescribed by regulations.

Unlike most of the previous legislation, the BAM Act is designed to facilitate cooperation between government agencies other than the Department of Agriculture and Food (DAFWA), as well as interested groups ranging from primary producers to the general public. For example, the BAM Act can be used to assist agencies other than DAFWA in the management of agricultural and environmental weeds or pest fish.

Recognised Biosecurity Groups (RBGs) have been formed across the rangelands to combat pests and diseases that threaten the profitability and viability of agricultural businesses in these areas. Targeted plants must be declared under the BAM Act. RBGs' biosecurity work can be funded from rates raised in the areas in which they operate, which are matched 50:50 by the State Government.

Industry funding schemes set up under the BAM Act for the grains, cattle, sheep and goats industries help these industries fund the biosecurity programs that are important to them, and can provide compensation for loss suffered as a result of incursions of specified declared pests.

For more information about the BAM Act, including links to the legislation and regulations and the Declared Organism Search, visit www.biosecurity.wa.gov.au For a list of the Acts and regulations repealed visit http://www.agric.wa.gov.au/PC_95639.html?s=1001

*Declared pest one-leaf cape tulip (*Moraea flaccida*) is not only an invasive weed of pastures and a stock poison, but one of the 30 highest priority environmental weeds of the Swan Region. Here (see flowered plant in the foreground) it is invading the threatened ecological community of shrublands on dry clay flats at the Anstey Keane damplands. Photo – Julia Cullity*

groupprofile

Bassendean Preservation Group Inc

By Carlle Bentley and Steve McFarland

BPG members (from left) Marion, Steve, John, Maggie and Ellen gather up pots and tools after planting several hundred natives at Ashfield Flats. Photo – Ruth Ireland

On 27 March 1985, a small group of people met to discuss a proposed canal development on the open floodplains of Ashfield Flats. The group decided they would oppose the development and they chose the name 'Bassendean Preservation Group' at this first meeting.

A public meeting followed and from this the Bassendean Preservation Group (BPG) was formed with 91 members. In the face of this strong community opposition the Bassendean Council eventually abandoned the canal proposal.

BPG members decided to continue to work towards protecting the river flats with the intent to prevent this situation ever arising again. For many years Ashfield Flats was a local dairy and as a result was an open paddock. After farm use ended the land became derelict, weed infested and a dumping ground. BPG decided to begin revegetation.

BPG contacted the landowner— the State Planning Department— and the Swan River Trust, who managed the riverbanks. With their permission BPG started work in the winter of 1986. With picks and shovels, several hundred native seedlings purchased from Men of the Trees were planted, but unfortunately a grass fire went through and burnt the trees the following summer. This happened three years in a row. The State Planning Department responded to our requests and employed contractors to slash the growth every spring. They also supplied BPG with seedlings until members started gathering seed and growing their own in their backyards.

In 1992 BPG became incorporated and was able to apply for grants. BPG has successfully received funding for initiatives that include planting frames from Men of the Trees, a promotional display board, educational brochures, log fencing to protect bushland at Jubilee Reserve, and the installation of a boardwalk at Ashfield Flats.

BPG worked with the Swan River Trust to control riverbank erosion from boat wash by installing limestone rocks and baffle boards, and planting rushes. While the baffle boards weren't that successful in mitigating wave energy, BPG provided several written submissions on reducing river boat speed and could probably take some small credit for the long-awaited decision to lower the boat speed to five knots!

BPG has also undertaken revegetation of remnant bush at parks and reserves all over Bassendean. These include Success Hill, Jubilee Reserve, Bindaring and Pickering parks. In mid-2000 BPG entered an arrangement with the Wheatbelt town of Bilbarin to extensively plant out the old trotting track and stockyard. One of our members created a website and led tours to draw attention to the neglected Broadway Arboretum. Bassendean Council recently approved a concept plan for restoration of this forgotten gem.

The increasing scale of BPG's planting program, and the requirements for upgrading to industry standard nursery hygiene practices to avoid the risks of spreading dieback meant we eventually outgrew our ad hoc backyard facilities and processes. In 2011, BPG sought and successfully received a Lotterywest grant to build a dedicated nursery, the 'GroCentre' to consolidate our already-extensive array of planting benches, tools and supplies. In 2013 several members received their DPaW Scientific and Other Permitted Purposes licenses and landowner permissions for gathering local provenance seed for our nursery. Now BPG routinely grows and plants out thousands of natives each year.

After 27 years, BPG has about 45 members and has planted tens of thousands of natives. The parks around Bassendean, particularly Ashfield Flats, are the better for it and gives us a tremendous feeling of satisfaction. You can learn more about BPG and link to Broadway Arboretum at our website www.bpginc.info

Resources

New publications

Australian Native Plants: The Kings Park Experience 2013 Mark Webb (Ed.) CSIRO Publishing. RRP $39.95. Based on nearly 50 years of experience at Kings Park and Botanic Garden in Perth, the book describes the horticultural requirements for mainly WA native plants – plant propagation, grafting, tissue culture, seed collection and storage, and the role of smoke in improving germination.

Birds of the Swan Estuary is a free brochure featuring birds found at Milyu, Pelican Point and Alfred cove. Contact Birdlife Australia on 9383 7749 between 9.30am and 12.30pm weekdays.

Website watch

Friends of Warwick Bushland's new website includes photos, walk trails and events. Visit http://friendsofwarwickbush.wix.com/friendsofwarwickbush

Inquiry into Australia's Biodiversity in a Changing Climate, Final Report June 2013. Visit www.aph.gov.au/ccbio

Native vegetation retention and protection status for the Swan Coastal Plain and Jarrah Forest IBRA regions have been updated using 2013 vegetation extent mapping. Visit http://pbp.walga.asn.au/Publications.aspx

Landcare and Local Government Partnerships – why it makes sense contains case studies of partnerships, motivation for engagement and recommendations for other groups. Visit http://www.landcareonline.com.au/wp-content/uploads/2013/07/Landcare-and-Local-Government-Partnerships-why-it-makes-sense.pdf

Cocky Notes project newsletter. Visit http://birdlife.org.au/documents/CBC-Cocky-Notes-Jun13.pdf

WA Environmental Offsets Register is a public database of environmental offsets arising from Ministerial conditions on proposals and from DER clearing permits. Includes spatial location, offset type, compensatory values and implementation timeframes. Visit www.offsetsregister.wa.gov.au

Regional Aboriginal Consultation Guidelines is a resource for local government to facilitate a process of engagement with the Aboriginal community in relation to Aboriginal cultural heritage and river management. Visit http://www.emrc.org.au/swan-and-helena-rivers.html

Glyphosate-resistant weeds have a high risk of evolving in non-agricultural areas where glyphosate is used exclusively for weed management. Visit http://www.rirdc.gov.au/news/2012/10/31/herbicide-resistant-weeds-spreading-on-public-land

Engaging the 20-something year old in Landcare by Ella Maesepp (Australian Landcare Council). Visit http://www.landcareonline.com.au/wp-content/uploads/2013/03/report-Engaging-the-20-somethings-in-Landcare.pdf

Apps

Sharing the Dreaming app developed by DPaW includes Noongar Aboriginal Dreamtime stories, illustrations, symbol meanings, six seasons, audio language and English translations. Free at https://itunes.apple.com/au/app/sharing-the-dreaming/id642267711?mt=8

WA PestWatch developed by the Department of Fisheries allows users to report aquatic pests and diseases, track other pest reports and access additional information about common marine and freshwater pests. Free from iTunes app store.

iGIS allows users to load, view, investigate, create and export their own data over a background of Google Maps imagery. Free from iTunes app store.

Field Guide to Pest Animals of Australia app includes maps, photos, tracks, scats, traces and calls of 31 pest vertebrate species. Free at https://itunes.apple.com/au/app/field-guide-to-pest-animals/id634197149?mt=8.

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