



New Swan environmental weed plan

By Karen Bettink

A STRATEGIC approach to managing environmental weeds in the Swan Natural Resource Management Region will be the outcome from a project recently funded by the Natural Heritage Trust through the Swan Catchment Council. The two-year project to develop an Environmental Weeds Strategy will be carried out by the Department of Environment and Conservation (DEC) in consultation with stakeholders in the region.

The project will enable a coordinated approach to managing the devastating impacts of environmental weed species across the Swan NRM Region. The focus will be on species impacting on high-value biodiversity assets, particularly regionally significant or high-conservation areas of bushland. It will provide a mechanism for implementation of the State Weed Plan and Environmental Weeds Strategy for WA (EWSWA) within the region.

Funding from the State Government's recently announced Biodiversity Conservation Initiative (BCI) will complement the project (see 'Updates' section).

Stages of the project

Identify and prioritise key weeds

This stage has been completed. Key weed species were identified using the EWSWA criteria (invasiveness, distribution and impact). Community interest, threats to assets, and current understanding of biology and control methods were also taken into account. A further selection aims to include species across a range of current or potential severe impacts, life forms, habitats and management objectives.

Species identified included arum lily (*Zantedeschia aethiopica*) and the increasingly problematic Geraldton carnation weed (*Euphorbia terracina*).

Collect and collate information

Information on distribution and management of the significant weed species will be collected from a range of stakeholders and sources



Karen Bettink and Mark Angeloni at Lowlands Bushland. (Photo: Kate Brown)

including community groups and natural area managers, FloraBase, botanical surveys and management plans. Where there are gaps or limited information, mapping will be undertaken at selected sites.

Information is being sought for the bulbous yellow soldiers (*Lachenalia reflexa*) and white weeping broom (*Retama raetam*), with more species to follow.

Prepare strategic plans

Strategic plans with an operational focus will be prepared for the selected key species. These plans will direct control of these species and will provide models for management of other species.

Implementation of threat abatement plans

On-ground actions will be undertaken throughout the project's life. The emphasis during this stage will be on supporting and facilitating land managers taking actions.

Establish an environmental weeds database

New data from this project will be used to update an earlier database developed by Kate Brown and Kris Brooks from the Environmental Weeds Action Network. The database will be an invaluable tool for all those involved with invasive species monitoring, planning and management.

Cooperation

The project will facilitate and support funding applications for on-ground works as well as develop close partnerships with key stakeholders, including local government, Friends groups and other organisations. Workshops and training days will be held to share knowledge and promote best-management practices.

For more information on the project or to provide details on any occurrence of yellow soldiers or white weeping broom, contact Karen Bettink on 9474 7053 or email Karen.Bettink@dec.wa.gov.au.

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Spring 2006

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Ecoplan News is a quarterly newsletter of Urban Nature, a Department of Environment and Conservation program to support community involvement in bushland conservation.

The Department of Conservation and Land Management merged with the Department of Environment, forming the new Department of Environment and Conservation. (DEC) on 1 July 2006.

Urban Nature UPDATE

This issue's cover article mentioned the Biodiversity Conservation Initiative (BCI), a project designed to deliver significant and demonstrated biodiversity benefits across the State, made possible by significant new funding to the DEC.

Themes of the BCI include pest animal and weed control, dieback management and continuing the State's cane toad initiative. Future issues of *Ecoplan News* will provide updates on some of the projects funded under the BCI.

Some changes close to home will be taking place for the Urban Nature team and DEC Swan Region in October, when the office is relocated to Technology Park at Kensington.

The Urban Nature team has been busy with a series of informative seminars and workshops. Brief summaries are provided below. We welcome John Boska to the office, assisting us with *Ecoplan News* and Skills for Nature Conservation on Mondays and Tuesdays. Urban Nature's bushland restoration training days continue this spring at Brixton Street Wetlands and Talbot Road Bushland. See 'What's on' (page 6-7) for details.

What's happening with *Watsonia*?

In August, DEC held a workshop at Mundaring designed to dispel some of the myths about *Watsonia* – one of the most common bulbous weeds in the Perth region. Topics included ways to identify different *Watsonia* species, why they are a serious threat, their distribution in the Swan Region and best practice management. Presenters included members of the Friends of Plesse Brook, Kate Brown, Karen Bettink and Bob Huston from DEC.



Workshop on *Watsonia* at Mundaring (Photo: Urban Nature)

Sharp rush workshop

Fifty participants from a range of groups including private landowners, attended a workshop to discuss ways to manage the increasingly problematic sharp rush (*Juncus acutus*). Participants gained awareness of the types of native and weedy rushes in Western Australia, the current distribution and potential spread, impacts on biodiversity, and ways to limit and control the spread of the sharp rush.

Speakers from DEC included Greg Keighery, Mike Lyons and Kate Brown. Other speakers represented the Botanic Gardens and Parks Authority, City of Gosnells, Department of Defence and Canning River Residents Environment Protection Association.

A group discussion helped identify urgent research needs, from a greater understanding of its biology to how fire could be used as a management tool.

Invasive bulbs seminar

A seminar on invasive bulbs, sponsored by the Weeds Society of Western Australia and DEC, attracted more than 70 participants from a variety of backgrounds. Speakers included Greg Keighery and Kate Brown from DEC, William Stock (Edith Cowan University), Bob Dixon (Botanic Gardens and Parks Authority) and Susie Warner (CSIRO).

Nearly all of the 106 known invasive bulbs (geophytes) were introduced to WA as ornamentals and the majority of them are confined to the south-west, especially around Perth. As a group, the bulbous weeds share reproductive and life-cycle traits. Knowing and understanding their biology is important in preventing spread, control and management.

The seminar highlighted the need to be alert for any 'newcomers' and prevent the introduction of invasive bulbs to the tropics and desert regions, currently free of any geophyte weeds.

More information available from Urban Nature

Managing Weeds in Bushland: Sharp Rush (*Juncus acutus*) and Cape Tulips (*Moraea flaccida* and *M. minimata*) brochures.

Seminar proceedings: 'Ecology, biology and management of invasive bulbs (geophytes)'.

Summer *Ecoplan News*

Summer *Ecoplan News* contributions should be sent to Urban Nature by Friday **1 December 2006**.

Compiled and edited by Jo Tregonning.

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Previous issues of *Ecoplan News* available at www.naturebase.net/urbannature.

WEEDWATCH:

Pretty Betsy and red valerian

By Kate Brown, Bushland Management Advisor, Urban Nature

OVER the past two years, two species of *Centranthus*, pretty Betsy (*Centranthus macrosiphon*) and red valerian (*C. ruber*) have appeared in the tuart and banksia woodlands of Paganoni Swamp. These weedy garden escapees can form dense monocultures and displace native herbs and geophytes (plants with underground storage organs).

Pretty Betsy is an annual herb with attractive rounded pink flower heads and green, elliptic, opposite leaves with toothed margins. Originally from Spain, it has become naturalised on calcareous soils from Perth to Busselton. A significant weed of tuart woodlands, pretty Betsy was observed to be particularly prolific last winter/spring. Previously unrecorded populations were discovered not only at Paganoni Swamp (three large populations) but also at Lake Cooloongup and in sedgeland at Becher Point.

Pretty Betsy reproduces by seed and appears to spread from the edges of tracks and disturbed areas into relatively undisturbed bushland.

Control of pretty Betsy

It may be that pretty Betsy has been present in very low numbers in these areas for many years and last year's winter rains simply provided optimal conditions for germination of seed and flowering of mature plants. Certainly none of the land managers or



Pretty Betsy (*Centranthus macrosiphon*) invades Paganoni Swamp. (Photo: Kate Brown)

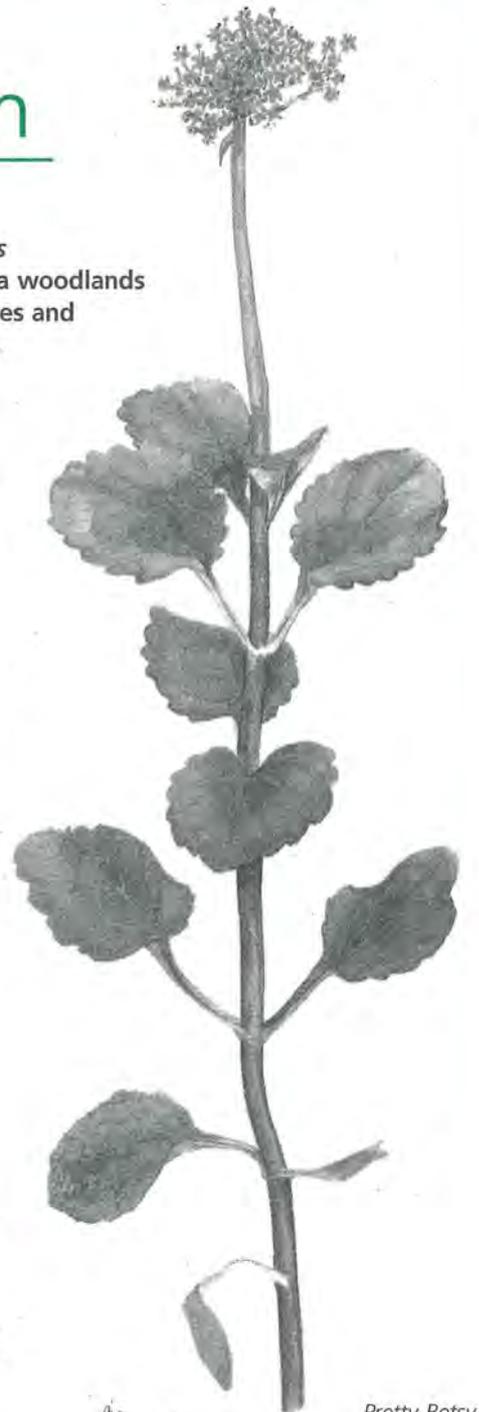
community volunteers who came across populations had noted the weed in their bushlands in previous years. At Paganoni the populations were mapped and resources have been made available this year to spray the seedlings and to do follow-up hand-weeding on plants surviving the herbicide treatment. Who knows though, with this year's late break to the season, pretty Betsy may go back into hiding. At least we now have maps and know where to look!

Appearances of new populations of pretty Betsy last winter/spring highlight not only the seasonal nature of weed management, but also the ability of a relatively uncommon weed to rapidly expand its range given the right seasonal conditions. It also highlights the importance of knowing your bushland plants well enough to recognise strangers when they make an appearance.

Prevent red valerian establishing

Red valerian, another garden escapee from the Mediterranean, is well-known as a weed of granitic soils around Albany. Under the right growing conditions it can spread quickly, by seed, into relatively undisturbed bushland. DEC rangers in Porongurup National Park have been battling red valerian invading the karri forest for a number of years.

In the Perth region, red valerian is known only from isolated populations along the Darling Scarp and from the eastern side of the Swan Coastal Plain where, although uncommon, it has the potential to become a serious weed. Probably the only way to prevent it establishing and becoming increasingly widespread is to remove isolated populations as soon as they make an appearance. Hand-weeding when populations are small is an effective option. For larger populations, herbicide application may be necessary.



Pretty Betsy (*Centranthus macrosiphon*)

Acknowledgment

Thanks to Anne Bellman, Neil Gibson and Ann Guinness for drawing our attention to populations of pretty Betsy over winter/spring 2005. The illustration above is reproduced from *The Bushland Plants of Kings Park* by Eleanor Bennett with kind permission of the artist, Patricia Dundas.

Reference for suggested herbicide applications

Brown K. and Brooks K. (2002) *Bushland Weeds: A practical guide to their management*. Environmental Weeds Action Network, Greenwood WA.

ECONOTES:

Animals in urban bushlands – the beating heart

By Mark Garkaklis, Regional Ecologist, DEC

INTEREST in the 'beating heart' of the bush is undoubted. Birds, mammals and invertebrates can really capture people's imagination. However, working with fauna in bushlands can be difficult, and people with an interest in pursuing conservation works aimed specifically at fauna need to acquire the correct skills beforehand.

Any person working with animals in Western Australia must follow the rules and regulations of both the *Wildlife Conservation Act (1950)* and the *Animal Welfare Act (2002)*. These Acts require workers to obtain certain approvals before conducting any work with animals. Animal ecology is a specialised field and the licensing system is designed to ensure that any person handling wildlife is sufficiently skilled to do so without causing harm.

Even spotlighting of animals may not be allowed in certain circumstances, so it is best to be cautious and get more information from your local DEC office about what is and isn't allowed before conducting any survey.

Volunteering – a great start

People can increase the skills they need for animal handling and management through voluntary work with wildlife care organisations, which can lead to people becoming certified wildlife carers themselves.

Registering with DEC as a volunteer provides the opportunity for people to gain first-hand experience in working with wildlife. Trapping programs, which are part of conservation science studies or DEC's wildlife recovery program *Western Shield*, often require the assistance of willing volunteers.

Counting tracks – real data

There are things that you can do in your own patch of bushland that provide invaluable data for wildlife and bushland management.



Honey possum (*Tarsipes rostratus*). (Photo: Christine Freegard)



Quenda or southern brown bandicoot (*Isodon obesulus*). (Photo: Christine Freegard)

Information about the presence of animals can often be obtained without actually trapping them. Track pads are a great way to get started. Raked sand pads located at specific points on existing tracks within the bush can confirm the presence of animal species by the tracks they leave. Track pads should be surveyed in a systematic way and the surveys should be conducted on a regular basis. If you do this, then it is likely that you will build up an important data set of animals that occur – this information can be invaluable if other management measures are implemented.

Publications are available that can help in the identification of animal scats and signs. If you intend to set up some track pads in your local bush you should first contact your local authority and ensure that there are no issues, such as dieback, that you need to be aware of.

Ferals in urban bushland

Perhaps the most important information that needs to be obtained from urban bushland is the abundance of feral species such as foxes, stray cats and rabbits. Getting information about feral species is vital to managing your bushland. Sand pads can tell you about the presence of foxes and cats, but estimates of rabbit numbers need a different approach. Systematic rabbit surveys are usually made by following a regular walking trail and counting the number of animals seen. This is best done as evening approaches.

Resources for urban creatures

Invasive species – feral animals in Australia www.deh.gov.au/biodiversity/invasive/ferals/.

Mt Lofty Ranges Animal and Plant Control Board
www.mlrpcb.net/pest_rabbit.htm.

DEC's NatureBase website
www.naturebase.net.

Triggs, B. (2004) *Tracks, Scats and Other Traces – A Field Guide to Australian Mammals*. Oxford University Press, Melbourne.

Propagating quandongs

By Harriet Olney

Thirty years ago Jenny Holder moved to a block with a small patch of bush the bulldozer couldn't get to. Among the remnant plants was a single quandong tree. Over the years, Jenny observed that the seeds from this tree rarely germinated. However, there were exceptions: the seeds that fell into small hollows and became covered by leaves did sprout. Through a process of trial and error Jenny developed a method that enabled her to supply seedlings for revegetation projects in her local area.

More recently, Jenny has started teaching bush regenerators from a wider area about her method. Rather than using bleach, hormones and insecticides as internet sites often recommend, Jenny avoids these 'nasties' by replicating the environment in which seeds germinate in the wild – they like it damp and dark.

If you want quandong seedlings of City Beach provenance or need help to propagate quandong seed from your local area, contact Harriet on 9335 2952 after hours, 9370 6942 during office hours or email h.olney@ecu.edu.au.



Quandong (*Santalum acuminatum*).
(Photo: Harriet Olney)

Future Volunteers partnership

Biodiversity conservation programs in the Kimberley and Pilbara regions, as well as regional parks in the metropolitan area, are being funded by a \$1 million commitment by Rio Tinto. The Future Volunteers program is supported by a Memorandum of Understanding between DEC, Rio Tinto and Conservation Volunteers Australia (CVA). CVA will undertake projects on lands managed by DEC over the next three years.

Conservation covenants: protecting our natural heritage

By Laura Colman

The National Trust's Conservation Covenant Program has achieved legal protection for more than 8650 hectares of native bushland since its official launch in 1999. The Trust's first conservation covenant dates back to 1971.

Conservation covenants are voluntary agreements used to protect natural values on private property by restricting potentially damaging activities.

Covenants are registered on the property title, providing legal protection for conservation values in perpetuity.

National Trust covenants are supported by a deed and management plan, which promote active management to minimise the impact of invasive species and



Frederick (Bert) Fidge – the National Trust's first covenantor.
(Photo: Ross Fidge)

improve the quality of the bushland. Trust staff members assist with implementing the management plan and monitoring the condition of the bushland through regular stewardship visits and contact with landowners.

The covenant program now operates more strategically, working in partnership with landowners, catchment councils

and conservation groups to target areas that provide habitat for threatened species and ecosystems. With new projects and the anticipated registration of the program's 100th covenant, 2007 promises to be an exciting year. For more information, contact Alan Briggs on 9321 6088.

Professor Philip Jennings awarded Order of Australia Medal

Professor Philip Jennings was awarded an Order of Australia Medal in recognition of his service to the environment. His service includes roles in strategic conservation policies and initiatives in the areas of wetland and urban bushland protection, establishing the Regional Parks program and environmental education.

Arum lily (*Zantedeschia aethiopica*) banned from sale or trade in WA



Arum lily (*Zantedeschia aethiopica*) has been banned from sale or trade in WA from September 2006. The ban includes the wild white form and all named varieties and extends to trade at markets and fetes. Arum lily is a severe environmental weed and is toxic to stock and people.

Perth Urban Bushland Fungi Project update

PUBF Project public events have finished for 2006. The PUBF team – Neale Bougher, Roz Hart and Sarah de Bueger – are processing records to produce the 2006 bushland fungi reports. The reports and additions to the *Fungi Field Book* will be available on PUBF's website (www.fungiperth.org.au) in November.

The PUBF Project has facilitated huge additions in the knowledge of fungi and their role and importance to all bushlands, including urban areas. The PUBF team expresses its gratitude to the 16 volunteer fungi leaders and survey participants who have helped to achieve more comprehensive results.

what's on

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

October

-  **4 Wednesday 9am–12 noon**
Wildflower walk at Brixton Street Wetlands – the splendour of the wetlands' annuals and geophytes. Call UN.
-  **6 Friday 7.30pm**
The Western Australian relationship with Kew Gardens. Talk by Alex George. Contact WA Nats.
-  **9 Monday–13 Friday**
Surveying grand spider orchid with DEC. Shirley Balla Reserve, Bosworth Reserve, Atwell Reserve, Frankland Park. Call Vanessa 9474 7056.
-  **9 Monday–13 Friday**
Fencing, planting along Manjimup Brook. Contact CVA.
-  **9 Monday–13 Friday**
Revegetation, weed management with friend groups within the City of Nedlands. Contact CVA.
-  **10 Tuesday 8pm**
Carnivorous plants talk by Allen Lowrie with Perth Branch of the Wildflower Society of Western Australia (Inc). Subiaco Community Centre, 203 Bagot Rd. Call Nina 9448 5419.
-  **11 Wednesday 7pm**
Night walk with Friends of Dianella Bushland. Call Jan 9344 2872.
-  **13 Friday 6pm**
Frogfest with World Wide Fund for Nature. Talk, BBQ, Lake Richmond walk. Call Naragebup 9591 3077. \$5 pp. Bookings essential.
-  **14 Saturday 9am–12.30pm**
Bush block management. Bush and waterway management, fire risk, private land conservation, enhancing natural habitats. Lot 2, Joseph Rd, Gidgegannup. Contact BSFH.
-  **14 Saturday 2–5pm**
Weed Buster Week. Speakers on latest weed issues, plus networking. EWAN General Meeting. City West Lotteries House, Delhi St, West Perth. Contact Diane 9457 2896 or gdmattthews@ozemail.com.au.

-  **14 Saturday 8am–4pm**
Beaches, bays and biodiversity of Garden Island. Four speakers on history, culture, coastal morphology, terrestrial biodiversity. Hillarys Beach Park. Contact SFNC.
-  **16 Monday–20 Friday**
Surveying grand spider orchid with DEC. Banksia Nature Reserve; Leda Nature Reserve; Lake Cooloongup bushland. Call Vanessa 9474 7056 or Kirsten 9336 6911 CVA.
-  **20 Friday 8pm**
Forest ecology talk. Call KRMB Nats.
-  **21 Saturday 8am**
Guided nature walk. Call FLG.
-  **21 Saturday 9am–3pm**
Perth's coastal hotspots. Bus trip with three speakers on Coastcare, dune vegetation, geology. Contact SFNC.
-  **21 Saturday–22 Sunday**
Photography exhibition, workshops on watercolour painting and GPS mapping. Herdsman Wildlife Centre. Contact WA Nats.
-  **22 Sunday 9am–12 noon**
Lupin pull with FSSB. Call Christine 9447 2983.
-  **23 Monday–27 Friday**
Planting, weeding, mulching 6000 plants along the Swan River, Garvey Park, Ascot. Call CVA.
-  **27 Friday 7.30pm**
Nocturnal walk in Star Swamp Bushland with FSSB. Bring a torch. Call David 9448 9192.
-  **27 Friday**
Wildflower walk at Talbot Road Bushland. Call UN.
-  **28 Saturday 8am**
Guided walk in Star Swamp Bushland with FSSB. Call David 9448 9192.
-  **Monday 30 October–Friday 3 November**
Planting, weeding wetlands within the City of Bayswater. Call CVA.

November

-  **1 Wednesday 9am–12 noon**
Walk through the Greater Brixton Street Wetlands to get the bigger picture! Call UN.
-  **3 Friday 7.30pm**
Use of pollen in forensic science talk by Lynne Milne. Contact WA Nats.
-  **4 Saturday**
Spotlighting at Karakamia Sanctuary. Contact WA Nats.
-  **6 Monday–10 Friday**
Weeding, planting, erosion control at Woodlupine Brook, Beckenham. Contact CVA.
-  **11 Saturday 9am–12 noon**
Creating creek line habitats. Types, vegetation structure, plants and animals, hands-on habitat creation. Brookside Park, Owen Rd, Parkerville. Contact BSFH.
-  **12 Sunday 7.30–8.30am**
Bush breakfast – cereals, fruit, fully cooked. Optional bushwalk in Bungendore Park, Bedfordale near Admiral Road entrance. \$7 pp. Bookings essential for catering. Call Elaine 9497 3353 or Bill 9399 8829.
-  **12 Sunday 8.30am**
Guided walk with Friends of Dianella Bushland. Call Jan 9344 2872.
-  **17 Friday 8pm**
Butterfly house workshop with Bob Goodale. Call KRMB Nats.
-  **18 Saturday 8am**
Guided nature walk. Call FLG.
-  **18 Saturday –19 Sunday**
Weekend at Yunderup Field Station. Contact WA Nats.
-  **23 Thursday**
Whales lecture by Micheline and Curt Jenner. Venue TBA. Contact WA Nats.
-  **24 Friday**
Follow-up control of perennial grasses along Blackadder Creek, Talbot Road Bushland. Call UN.
-  **25 Saturday 8am**
Guided walk in Star Swamp Bushland with FSSB. Call David 9448 9192.

December

-  **1 Friday**
Christmas wind-up at Herdsman Wildlife Centre. Contact WA Nats.
-  **11 Monday–15 Friday**
Planting, weeding, mulching at North Lake, Beelair Regional Park. Call CVA.
-  **11 Monday–15 Friday**
Planting, nursery activities at Capel Wetland Centre. Call CVA.
-  **16 Saturday 8am**
Guided nature walk. Call FLG.



Other events

-  **1 September–16 October 2006**
Great Australian Marsupial Night Stalk. National spotlight survey to determine numbers and distribution of marsupials and feral pests. Contact Lyndsay 9474 0497 or nightstalk@perthzoo.wa.gov.au.
-  **4–6 October 2006**
AAEE National Conference, Bunbury. Sharing Wisdom for our Future: Environmental Education in Action. Visit www.aaeeconf2006.org.
-  **8–12 July 2007**
World Conference – Science and Technology Education, Perth. Call for papers closes mid-November. Contact Elaine 9273 6395 or visit www.WorldSTE2007.asn.au.
-  **Nearer to Nature**
Guided activities in and around Perth. Affordable prices. Program at www.naturebase.net/nearer-tonature. Bookings DEC 9295 2244.

Highlights

- 3 October**
World Habitat Day
- 5 December**
International Volunteer Day
- 5–12 December**
Coastcare Week

Please send us your January, February and March events by 1 December 2006.

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

Organisations providing a series of activities:

- BSFH** **Bush Skills for the Hills** offers free hills-focused workshops. Contact Robbie 9424 2216 or Roberta.Circosta@emrc.org.au.
- CVA** **Conservation Volunteers Australia.** Contact Kirsten on 9336 6911 or perth@conservationvolunteers.com.au.
- FLG** **Friends of Lake Gwelup.** Meet at Scout Hall carpark Huntriss Rd, Gwelup. Call Betty 94445640.
- FSSB** **Friends of Star Swamp Bushland.** Meet at Henderson Environment Centre, Groat St, North Beach.
- KRMB Nats** **Kwinana Rockingham Mandurah Branch (KRMB) of the WA Naturalists' Club.** Rockingham Regional Environment Centre, Safety Bay Rd, Peron. Call 9591 3077.
- SFNC** **Skills for Nature Conservation.** FREE training courses from Swan Catchment Centre (SCC), DEC and Greening Australia (WA). Calendar at www.naturebase.net/urbannature/learning_opportunities.html. Call SCC 9374 3333.
- UN** **Urban Nature** (DEC). Bushland restoration training days (and morning tea) at Brixton Street Wetlands (Alton St, Kenwick) and Talbot Road Bushland (cnr Talbot Rd and O'Connor St, Swan View). Call 9474 7052/9474 7032.
- WA Nats** **Western Australian Naturalists' Club.** Hew Roberts Lecture Theatre, Clifford St Nedlands (UWA Extension). Contact 9228 2495 or wanats@iinet.net.au.

Funding opportunities

Funds to extend National Reserve System

The Department of Environment and Heritage has announced \$6 million in funding to extend the amount of high-conservation value land protected under the National Reserve System. The reserves are being set-up in partnership with local communities, non-profit conservation groups, local and state governments and private industry. Applications are now open from partners who wish to acquire properties for protection under the scheme. Contact DEH (02) 6274 1759 or nrs@deh.gov.au, or visit www.deh.gov.au/parks/nrs/program/apply.html.

WA grants directory for community and local government compiled by the Department of Local Government and Regional Development is at www.grantsdirectory.dlgrd.wa.gov.au/.

GrantsLink – directory of Commonwealth grants available to community www.grantslink.gov.au/.

Learning opportunities

Conservation Volunteers Australia has developed new ways of supporting conservation outcomes through community capacity building and training that builds the capacity of the people involved. Programs include:

- Certificate One in Active Volunteering – an accredited course for volunteers. Have your experiences recognised across Australia!
- Course in Conservation Volunteer Management – an accredited course for NRM supervisors and managers, which can be offered on-line or face-to-face.
- In Safe Hands – a safety management system for community groups that emphasises excellence in volunteer management, worksite hazard recognition and risk management.
- Risk Assessment Workshops and Handbook – a simple but effective means for community groups to assess and control risks.

Contact CVA on 9336 6911 or email perth@cva.org.au for more information.



regional reports

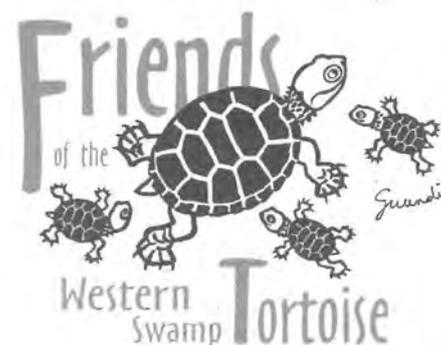
Please send your regional report (approximately 200 words) and photo to Urban Nature by 1 December 2006.

Swan Valley works together to help the western swamp tortoise

The Friends of the Western Swamp Tortoise is a volunteer community group aiming to support DEC and the Western Swamp Tortoise Recovery Team in their efforts to save Australia's most endangered reptile from extinction. There are less than 50 mature individuals worldwide in two locations in the Swan Valley. These reserves are enclosed by vermin proof-fences to protect the tortoise and allow the release of hatchlings from the Perth Zoo captive breeding program.

In September, Edgecombe Brothers Winery in the Swan Valley launched their new flagship wine, Old Vine Shiraz. Two dollars from the sale of every bottle was donated to the Friends group to assist with habitat rehabilitation. Bottle number 0001 was donated to a fundraising raffle. A winery discount 'community card' was also launched to raise more money for western swamp tortoise conservation work. Friends are setting up a permanent display and interpretive centre at the winery to increase public awareness of the plight of this endangered animal.

Call Jan from the Friends of the Western Swamp Tortoise on 9344 2872.



Big turnout for planting day at Clontarf Hill



Participants in the 2006 planting day organised by Friends of Clontarf Hill in the City of Fremantle. (Photo: Jahne Rees)

By Christine Duckham

More than 50 people participated in this year's planting organised by Friends of Clontarf Hill (FCH) in the City of Fremantle. More than 200 seedlings were planted, some of which had been propagated by members of the group. A barbecue was hosted by FCH with Pale Ale donated by Little Creatures.

Rubbish dumping at the site continues to be a problem and the group once again removed large quantities. A participant informed us he had reported a member of the public dumping a lounge chair at the site and the City of Fremantle successfully tracked down the offender who received a \$200 fine. Please report rubbish dumping to the shire council.

Locals who have read the *Cockburn Coast District Structure Plan* are concerned the area could be developed for housing. Members of the group have met with the Mayor to discuss the future of the site.

The area is well used by the community and is home to a large number of birds, mammals and reptiles. It also supports one of the few remaining stands of tuart trees in the Fremantle area. The population increase in surrounding areas will further increase the value of this site as public open space.

FCH intends to continue its efforts and people wishing to join the group can contact Christine on 9337 7666, 0408 931 633, or by email (christine.d@westnet.com.au).

Friends groups looking for members

Woodman Point Regional Park

Concerned local residents have joined forces to launch a new community conservation organisation – the Friends of Woodman Point Regional Park. The group is made up of local volunteers who wish to protect and restore the park for conservation and recreation.

Woodman Point is considered to be a regionally significant natural area of great conservation and heritage value and is one of Perth's most popular beachside areas. Activities to be undertaken include bushland restoration, rehabilitation and weed control.

Call Renee Miles on 9431 6500 at DEC's Regional Parks Unit in Fremantle to register your interest.

Friends of Warwick Bushland

Friends of Warwick Bushland is calling for interested community members to join the Friends group in ongoing conservation work at Warwick Conservation Area and Warwick Senior High School bushland. Meetings are held the third Sunday of the month at 9am, at the information shelter, tennis club car park, Lloyd Drive, Warwick.

Email Janina on neen@ext.uwa.edu.au.



Euphorbia weed eradication program at Paganoni Swamp

By Leonie Stubbs

This is the second of a five-year eradication program for Geraldton carnation weed (*Euphorbia terracina*) from Paganoni Swamp. A substantial amount of *E. terracina* was removed in late August. It was a team effort involving contractors from Ecojobs, staff from Urban Nature and volunteers from the Friends of Paganoni Swamp (FPS).

The success of the program depends on the cooperation of community, State and local government and the private sector. This is the second year FPS have been successful in gaining a Regional Parks Community Grant for the program. This year, funding was also supplemented by a donation from Readymix. The funding was used to employ contractors to manually remove mature plants in August and apply herbicide to juvenile plants in September. A decision on whether additional spraying is necessary will depend on rainfall patterns over the remainder of the year. Seasonal changes mean that a flexible approach is necessary for successful weed management.

Monitoring changes in weed cover and the presence and abundance of native species is carried out biannually. Urban Nature's Kate Brown and Grazyna Paczkowska monitor the 15 trial plots and provide valuable advice on weed control. The weed management program is managed by Renee Miles from DEC's Regional Parks Unit in Fremantle.

For more information call Leonie on 9537 1831



Leonie Stubbs and Ian Dieroff (Readymix Manager – Sand and Limestone), at one of the Euphorbia monitoring plots in Paganoni Swamp. (Photo: Kate Brown)

Community can make a difference



This is a condensed version of a paper presented by Eddy Wajon at the Enviro 06 Conference (Melbourne, 8–11 May 2006).

The community was closely involved with the planning, design and construction of Roe Highway Stage 7. As a consequence, this project was provided with an increased level of social engagement and community impact on outcomes. Many issues raised by the community were taken seriously by the project team and changes were made.

For example, actions taken to reduce the area of vegetation cleared from 62 to 55.4 hectares included:

- a reduction of median width;
- reducing clearing envelope from three to one metre on each side of the road;
- reducing clear zone from nine to zero metres and installing a wire rope safety barrier in sensitive areas; and
- locating the dual use path adjacent to the shoulder of the road wherever possible.

A major outcome of community pressure was offsets including:

- 29 hectares of land near the road reserve containing 85 grand spider orchid individuals were transferred into the

conservation estate, including Ken Hurst Park; and

- 21 hectares of land at Fraser Road, Jandakot, containing more than 440 grand spider orchid individuals, previously earmarked for sand mining and housing development were transferred into the conservation estate.

Even so, more could have been done to reduce the area cleared – revegetation criteria should have been raised and there should have been more rapid protection and management of the offset areas. There were several issues where it was difficult to simultaneously achieve positive social and environmental outcomes. These included improved access into Ken Hurst Park; the proximity of the road to residences to reduce impacts on orchids, which raised noise and security risk; and the recovery of topsoil (for revegetation purposes) during summer caused dust pollution.

The outcomes from this project demonstrate that volunteers can make a real difference to the environment, even if they don't get everything they hope for.

For a full copy of the paper email wajonpub@wantree.com.au.

New water pipeline in the lower Helena Valley

By Penny Hussey

To increase dam capacity and efficiency, the Water Corporation has recently begun the first stage of a pipe replacement project, which runs through the road reserve adjacent to the Helena River and the new Mundaring National Park.

The Helena River Catchment Group organised a walk along the new pipeline with staff from Water Corporation to discuss environmental completion criteria including erosion control, weed management, revegetation techniques, fire planning and off-road vehicle access. Although there were, inevitably, some differences of opinion, a consensus was reached on how the community and the project proponents could work together to achieve the best possible outcome. Biodiversity in the Helena Valley should be the long-term winner!

For more information call Penny on 9334 0530 during work hours.

Watsonia control project at Talbot Road Bushland

By Anne Taylor

Conservation and Land Management students at Swan TAFE have been assisting Urban Nature with their campaign to control *Watsonia* at Talbot Road Bushland in Midland. *Watsonia* grows among dense creekline vegetation and is impossible to spray or remove by hand. Students trialed three different 'wiping' techniques using 10 per cent Roundup® dilution in each. The techniques were:

1. a small spray bottle with foam over nozzle
2. Dishmatique® purchased from local supermarket and
3. a weed wand.

The unanimous verdict was that Dishmatique® proved the quickest and most-efficient tool for wiping out *Watsonia*. It can be purchased from the cleaning section of your supermarket for a few dollars. If you're trying this method remember to use a dye in the herbicide to show where you've already applied.

For more information email Anne on anne.taylor@swantafe.wa.edu.au.

Planting at Brixton Street Wetlands



Planting at Brixton Street Wetlands. (Photo: Urban Nature)

By John Boska

The Brixton Street planting day on 8 July 2006 was a great success. More than 900 seedlings were planted. Thirty volunteers including students, families and Friends of Brixton Street Wetlands (FOBSW) worked with DEC officers. Members of FOBSW were thrilled by the number of people who came and the planting was quickly completed. This work further extends the vegetation buffer around the wetlands.

Weeding of African lovegrass, perennial veldt grass, soursob and black flag was also done along the western side of the wetlands.

Special thanks to the City of Gosnells for providing the portable toilet. A big thank you to all who were involved on the day.

Monthly restoration training days are held at Brixton Street Wetlands and Talbot Road Bushland. Contact Urban Nature on 9474 7052 or 9474 7032.

Australian Wildlife Conservancy awarded

The Australian Wildlife Conservancy received the 2006 Prime Minister's Environmentalist of the Year Award for establishing a network of places for Australia's endangered wildlife. This independent, non-profit organisation has established five sanctuaries in Western Australia covering 497,049 hectares. The sanctuaries provide protection to numerous threatened plants, animals and ecosystems in the Swan, Avon-Wheatbelt, Kimberley and Gascoyne Regions. Visit www.australianwildlife.org for more information.

DEC's Kevin Kenneally was a finalist in this category for his work in *LANDSCOPE* Expeditions, a DEC program that sees volunteers contribute to science and conservation in a range of programs throughout the State.

We can stop this bird



Biosecurity officer Glen Coupar with two Indian ringnecks recently captured after reports from members of the public. (Photo: Department of Agriculture and Food)

This year, small groups of Indian ringnecks have been confirmed at Kelmscott, Forrestdale, Edgewater, Armadale and Cottesloe, with up to 12 birds reported at Calista. The birds have generally arrived over many months at bird feeders or aviaries maintained by residents. Luckily most have been recaptured and returned to aviaries.

The Indian ringneck is regarded as one of the most destructive bird pests of agriculture in Asia and is a widely-kept cage bird in WA. Please report all sightings to the Department of Agriculture and Food's Pest and Disease Information Service on freecall 1800 084 881 so birds can be safely retrieved.

Reptiles in rehabilitation



Black-backed snake (*Rhinoplocephalus nigriceps*) in a rehabilitated bauxite mine. (Photo: Mike Craig)

By Mike Craig (Murdoch University)

A joint project between Murdoch University, Alcoa and DEC is looking at the abundance and diversity of reptiles in rehabilitated bauxite mine sites. Several experiments have been completed including one that examined reptile communities in rehabilitation of different ages and in unmined forest. Three reptile species previously unrecorded in rehabilitation were captured – Burton's legless lizard, Gould's snake and black-backed snake. However, all three species were only found after several thousand trap nights, suggesting they are naturally rare and considerable effort is required to

find them in any habitat. Not surprisingly, species responded in different ways to the age of rehabilitation. Some species became more common and others declined as the age of the rehabilitation increased.

Another experiment looked at the effect on reptiles of thinning and/or burning rehabilitation sites. Results indicated several species benefited from thinning, whereas no species was disadvantaged. This is probably because thinning increased the amount of sunlight reaching the forest floor and increased basking opportunities for a range of species. Other experiments are continuing and will help provide information for managing rehabilitation sites in the future.

Collecting roadkill for fox DNA project

By Oliver Berry

Finding the most efficient and cost-effective way to control foxes is a long-standing goal of land managers. A key to fox control is to determine their movements. Foxes show quite different movement behaviours in different landscapes. New DNA-based methods can provide information on fox dispersal and population structure, while requiring much less effort than other techniques.

In this project, researchers are attempting to generate a genetic map of foxes throughout WA. It will allow identification of the best scale at which fox control should take place – region-by-region throughout the State.

Researchers from The University of Western Australia (UWA) are asking members of the public and landcare groups to provide samples of foxes they find as roadkill. Local councils may be able to obtain samples from foxes trapped. The research team will provide some easy-to-use kits that fit into a normal postal envelope, which contain all the information and equipment required to take small samples. The sample is put into a reply paid envelope and sent to UWA for analysis. If you would like to contribute or to find out more, visit www.foxDNA.animals.uwa.edu.au or call Oliver on 6488 4509.

GROUPPROFILE:

Friends of Lightning Swamp Bushland

By John Williams

WITH encouragement from the City of Bayswater and support from Bennett Brook Environmental Group, the Friends group was founded by five community members in September 2000. Since then, thousands of seedlings have been planted, fencing and paths installed and management for weeds, *Phytophthora* dieback and water quality are in place.

Lightning Swamp Bushland (LSB) is a 70-hectare area located north-east of Perth in the suburb of Noranda. It includes two ephemeral (seasonal) wetlands and a perched wetland containing water most of the year. An open storm-water drain traverses the length of the site, draining into the ephemeral eastern wetland and eventually into Bennett Brook. A mixture of plant communities occur on-site from winter-wet swamplands of *Eucalyptus rudis* and *Melaleuca* communities, areas of *Corymbia calophylla* forest, to upland sites containing *Banksia ilicifolia* and *B. menziesii* woodlands. More than 150 flora species have been identified including two priority flora (*Macarthuria apetala*, *Jacksonia sericea*) and a declared rare flora (*Caladenia huegelii*).

LSB is owned by the Western Australian Planning Commission. Although situated within the City of Swan, the bushland has been vested with the City of Bayswater. This agreement was a major turning point for the local community to become involved in conserving and protecting the bushland.

The 'hard yakka' begins

In 2001, the group replaced dilapidated star-picket fencing with post-and-rail to prohibit entry of illegal motorbikes and 4WDs. Two revegetation projects began at the old farm site and an eroded hill site. The poultry-farm site is of historical significance, being occupied by the Ludeman family from the late 1930s to



Planting along the drain embankment (from left) Don Kidson, Joe Ribeiro, Hans Hoette, Russell Chambers and John Williams. (Photo: Ruth Williams)



A recent planting day at the old poultry-farm site. (Photo: Ruth Williams)

1966, when it was reclaimed by the State Government and cleared of structures. One of the most memorable events for the group was when rubbish, including car bodies, was removed from the perched wetland in 2001 and new fencing secured the sensitive site.

In 2002, the *Lightning Swamp Bushland Management Plan* was prepared by the City of Bayswater and the Friends group. With up to 70 per cent of the bushland affected by *Phytophthora* dieback, the group commenced a dieback treatment program in 2005 over a three-yearly cycle, to help prevent any further spread.

The group continues to carry out revegetation projects with funding

assistance from Swan Alcoa Landcare Program and the City of Bayswater. Replanting projects are carried out from June to August and are usually the most popular community activity, attracting a diverse range of volunteers including young families, students and retirees. A major achievement by the group has been the planting of 6500 plants at the old farm site during the last three years. Weed infestations are a major problem, so the group continually monitors and implements weed control programs.

This year the group initiated a water monitoring program, assisted by North Metro Catchment Group and funded by the cities of Bayswater and Swan. The aim is to produce an accurate record of pollutant levels entering Lightning Swamp so a strategy to reduce or eliminate the pollutants can be implemented.

The end of 2006 marks the completion of a wetland project involving the planting of some 4500 plants in the ephemeral eastern wetland in preparation for the construction of a 100-metre boardwalk in 2007. The group appreciates the support from the City of Bayswater to implement projects such as the construction of 3.5 kilometres of limestone

paths and boardwalks.

The growth of the group to approximately 50 members and its achievements are a testament to the work done in the early years by one of the founding members, Kim Grace. If there is advice the Friends group can give to others, it is to prepare time-tabled implementation plans and distribute to all stakeholders for support and guidance. Ensure the plans will benefit both bushland and community.

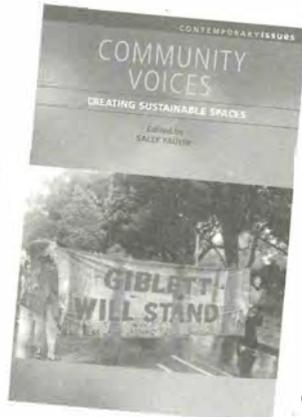
Become involved

Friends group meetings are held on the last Friday of each month at North Metro Catchment Group offices (125 King William Street, Bayswater). Call John on 9275 7338.

Resources

New publications

Community Voices: Creating Sustainable Spaces focuses on the way people come together in community groups to achieve sustainability outcomes. It uses a series of Western Australian case studies, both urban and rural, to examine a range of projects and campaigns. Released September 2006, Sally Paulin (Ed) UWA Press RRP \$39.95.



Nyoongar stories of country *When the sea level rose* is the second CD-ROM narrated by Noel Nannup of Nyoongar creation stories that have been passed down through the Nannup family. Copies of this and the first CD, *Carers of Everything*, are available from the Swan Catchment Council on 9374 3333.

Tools and equipment

Community Coastcare Trailer available to Coastcare groups in the north-metro region for community-based coastal restoration projects. Equipment includes planting machines, first aid kit, shovels, fencing and watering equipment. The trailer is NHT funded and housed by RecfishWest at the Waterman's Bay Marine Centre. For more information contact Christine Lamont (Swan Catchment Centre) on 9285 5099 or christine@cottesloe.wa.gov.au.

Riparian Plants of the Avon

Catchment: a field guide available from the Avon Catchment Council, PO Box 311 Northam WA 6401 or phone 9690 2250. Book \$25.00 or CD \$10.00.

Ecological communities publications

A new approach to listing Ecological Communities and Ecological Communities: A way forward. Both available www.deh.gov.au/epbc/publications/ecological-communities-listing-approach.html.

Conservation covenanting publication

Gifts that keep on giving (Department of Environment and Heritage) helps to explain the covenanting options available. To order a hard copy call 1800 803 772 or email ciu@deh.gov.au.

Website watch

Bush, Biodiversity and NRM in WA newsletter aims to facilitate the sharing of information between those working and volunteering in biodiversity conservation and native vegetation management in WA. Email Neil (Australian Government NRM facilitator, Bushcare) on neil.riches@csiro.au.

WA Threatened Species Network Update is produced by DEC two or three times a year. Visit www.naturebase.net/plants_animals/watscu_watsnu.html.

National newsletter for Threatened Ecological Communities *Communities for Communities*. Visit www.deh.gov.au/biodiversity/threatened/publications/communities-newsletter/index.html.

Newly launched websites include the **Friends of the Western Swamp Tortoise** at www.westernswamptortoise.com; and **Baldivis Children's Forest** at www.childrens-forest.com.au.

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