



Significant reforms of the Environmental Protection Act before Parliament

A NEW offence of environmental harm, new penalties and controls to stamp out illegal clearing and improved environmental regulation are proposed under reforms to the Environmental Protection Act.

Environmental harm

The new offence of environmental harm will extend current prosecution powers, creating a new penalty to cover all acts of environmental vandalism. Individuals intentionally causing serious environmental harm face penalties up to \$500 000 or five years in jail, while for companies the penalty is up to \$1 million.

Penalties will also target acts of illegal clearing, which currently apply maximum fines of only \$3 000 for individuals in rural areas. Under the new provisions, clearing without a permit can attract a \$250 000 fine. Daily penalties will also apply to those who continue to commit an offence.

Environment and Heritage Minister Dr Judy Edwards said the changes were in line with the Government's commitment to strengthen environment regulation across the State.

"The tough, new penalties send a very strong message that illegal clearing is unacceptable. They also reflect the devastating impact that clearing has on biodiversity and its contribution to land degradation, including salinity," Dr Edwards said.

Other reforms

Assessment of clearing applications for all forms of environmental degradation will be possible under a single Act, taking into account the impact on biodiversity, water and soil resources, salinity and other environmental issues such as impacts on neighbouring or other local native vegetation areas.

Public and private land in both rural and urban areas will be subject to assessment, upon application for a permit, making the process more equitable.



Photograph courtesy of George Bingham.

Other reforms to the act include:

- forcing illegal land clearers to re-establish vegetation
- enabling the Department of Environmental Protection (DEP) to stop industry discharges on-site, before they start affecting the environment outside
- removal of the need for the Minister's permission before prosecution action
- enabling the Government to require licence-holders to ensure funds are available to deal with potential problems sites
- introducing new types of clearing permits for specific types of land management such as roadside verges
- supporting the revegetation and other work undertaken by Landcare, Bushcare, Coastcare and other community groups to increase the quality and quantity of native vegetation, and
- new whistleblower protection for people revealing environmental problems.

Achieving long term goals

The changes will also provide a base for achieving the key long-term goals of:

- *Existing biodiversity commitments* – where the State is party to several agreements

which strengthen the government's commitment to protecting biodiversity, for example the National Strategy for Protecting and Managing Biodiversity

- *Sustainable farming* – where better management of clearing is an essential step towards sustainable agriculture in this State, as well as accreditation of WA in markets for sustainable agriculture, and
- *Market-based clearing management* – where the State government's introduction of carbon credits, bush bank and leverage of public investment in nature conservation can be complemented.

If in doubt

"The Bill contains a special provision to stop people from unauthorised clearing while Parliament is debating the amendments," Dr Edwards said.

"From 26 June, if anyone clears without proper authorisation, they can be ordered to re-establish the vegetation, and that can be a very expensive exercise. The DEP has established a hotline so that people can be sure of the new rules and avoid having to replant. The provisions will also be advertised State-wide in the media."

Dr Edwards said anyone who planned to clear and was in any doubt should contact the DEP on free-call number 1800 061 025.



As I look out the window of my office here at Kensington, the wattle birds and honey eaters feed on the flowering grevillea. Spring is definitely arriving! This season always means a very busy time for most of us, with so much to do and see.



Thanks to all the groups who have taken part in the **Bushland Care Day** program. We certainly have removed a great many weeds, planted lots of trees and understorey plants, built pathways and generally enjoyed some nice company and delicious morning teas. Luckily each and every day of the program has been graced with fine weather, often with that wonderful shower of rain in the evening to "water in" the plants.



Thanks to the Minister for the Environment, Dr Judy Edwards, the local member, Dr Janet Woollard, the Mayor of Melville, Katie Mair and the A/CEO of the Department of Conservation and Land Management, Keiran McNamara for their support at the launch of the program at Wireless Hill. Thanks also to staff from government departments and their families who come to give a helping hand. None of the Bushland Care Day achievements would be possible without the consistent effort and dedication of Conservation Volunteers Australia (CVA). Thanks in particular to Conrad Slee for dedication above and beyond what is required, to Elisa who manages the recruitment of enthusiastic volunteers and to all at CVA.

The continued effort of the CVA volunteers is also fantastic. Special thanks to Brian and Lois, Alex, Pam and others who turn up on a regular basis all over Perth. Another regular is Perth's greatest weeder, Andrew Thomson from the Urban Bushland Council. It is great to have your support and energy Andrew. In short to all who support and participate - we could not do it without you!!



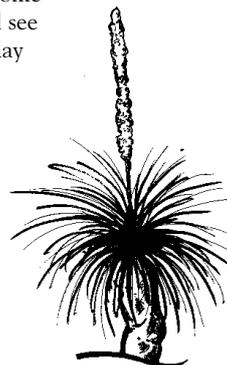
While these days take a lot of organisation on the part of local groups, the benefits to both the bushland and the local community are marvellous. We have been fortunate to also receive quite a bit of assistance from the Ministry of Justice who often take care of the heavy work. Great support has also been provided by corporate groups such as Woodside at Hovea and Ionic Engineering at Bold Park. Visits from the local Fire and Emergency Service Authority teams have helped to build bridges between local friends groups and fire fighters at a time when the bush is not under threat. It was also a great opportunity for the Girl Guides at Lake Yangebup to explore a fire engine at close range and ask all the questions they wanted answers for. Thanks too to Fran Logan MLA for his brilliant effort moving mulch for the best part of the day. The final day this year is at Talbot Road bushland on Saturday 19 October - All welcome!



The **Skills for Nature Conservation Training** program has been well attended and feedback from evaluations suggest that people are learning lots and enjoying the opportunity to take part. One plea from the organisers - if you have registered to attend but find, you are unable to make it, PLEASE LET US KNOW, preferably a few days beforehand. We have limited numbers in some courses and have turned people away only to find that some participants are not attending on the day. This is disappointing for the speakers, many giving their time as volunteers, and prevents others from having an opportunity to learn.

Hope you all find some time to get out and see the wonderful display of wildflowers and enjoy the spring.

Margo O'Byrne



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'Ecoplan News is a quarterly newsletter of Ecoplan, a Department of Conservation and Land Management program to support community involvement in bushland conservation'.

Summer Ecoplan News



Forward your news, activities and regional reports for the Summer Ecoplan News by 1 December 2002. Please keep your regional reports under **250 words** and articles **as brief as possible**. Send us your photos! Fax, e-mail or write to Margo (see Ecoplan contacts panel on this page).

Thanks to all contributors.

Newsletter compiled and edited by
Colma Keating.



National Weedbuster Week 2002 13-20 October

Every year, more and more people across Australia are becoming Weedbusters in order to stop weeds in their tracks. National Weedbuster Week provides a focus for Weedbusters to raise weed awareness and participate in one of hundreds of weed activities around the country. Many activities such as weed clean-ups, displays and competitions are held by volunteer groups. Woody Weed, the Weedbuster Week icon, helps to promote Weedbuster activities.

To register your group's participation or to check the Weedbuster Week events calendar, log onto www.weedbusterweek.info.au or contact Sandy Lloyd, Dept. of Agriculture 9368 3760, slloyd@agric.wa.gov.au.

In Memory

Community wetland and bushland groups sadly acknowledge the recent loss of **Dr Luke Pen**. Luke provided knowledge, practical assistance and inspiration to many community volunteers as well as government decision-makers. Lasting memories for many include his generosity, willingness to accommodate requests and his ability to make the science clear and practical, whilst still retaining the wonder of it. In April 2002 a new walk trail along a section of the Kalgan River was named 'The Luke Pen Walk' in his honour.



Best Wishes

Ecoplan extends best wishes for a fast recovery to Piesse Brook bushland carers **Linda Stanley**, **Vikki Batt** and **Gerry Brown**.

Learning opportunities



There are a range of learning opportunities available – call the following organisers and/or check out *What's On* centre pages.

The **Skills for Nature Conservation** (Swan Catchment Centre/Ecoplan/Greening Australia (WA) Bushcare Support) seminar and workshop series continues to provide information sharing and training for bushland and wetland carers. Contact the Swan Catchment Centre on 9374 3309.

Apac run a series of training and development courses including bush regeneration, plant propagation and seed collection. For more information call 9336 1262.

The Eastern Hills Management **Bush Skills for the Hills** program is targeting all those wishing to develop skills appropriate to the hills environment. Contact Loretta Bean on 9479 4808.

Naragebup – Rockingham Regional Environment Centre offers a range of environmental workshops and short courses. Contact Naragebup on 9591 3077.

Ribbons of Blue/Waterwatch have a workshop program for educators, coordinators and volunteers. Contact Nicole Hartog on 9278 0644.

Nearer to Nature provides opportunities to learn about the natural environment on the Swan Coastal Plain and the Darling Range. Contact May Carter at the Department of Conservation and Land Management on 9295 2244 or www.naturebase.net

Combine volunteering with learning. **Conservation Volunteers Australia (CVA)** has a regular program of volunteering opportunities in practical conservation in the Perth metropolitan area. Contact CVA on 9336 6911 or www.conservationvolunteers.com.au

Funding opportunities

Community Conservation Grants

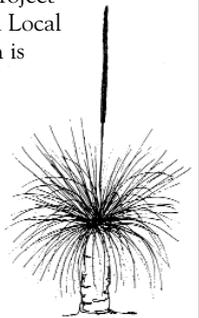
Community Groups can apply for up to \$5 000 from the Minister for the Environment's Community Conservation Grants, but funding is limited. For further information and to register your contact details to receive guidelines and application forms, when available, contact Julie Adams at the Department of Conservation and Land Management on 9334 0455 or juliea@calm.wa.gov.au.

Lotteries Commission Grants

Gordon Reid Foundation for Conservation Grants are available for conservation focussed projects, including on-ground works. For more information contact the program coordinator on 1800 655 270 or check out the website www.lottery.wa.gov.au/corporate/grantsguide

Perth Biodiversity Project – Round 2

The Perth Biodiversity Project (PBP) hosted by the WA Local Government Association is calling for expressions of interest (EOI) from metropolitan Councils and community groups for strategic, local government capacity building and on-ground projects. EOI due 31/10/02. The funding guidelines, EOI and application forms can be downloaded from the PBP website at <http://www.walga.asn.au/projServices/pbp>. The PBP team welcome discussion of project ideas with potential applicants. For further information contact Carla Miles on 9213 2048 or cmiles@walga.asn.au.



“Are all of your training days this good?!”

A participant's response at recent Skills for Nature Conservation course. Check out *What's On* centre pages and join the final training days for 2002.

Bushland Care Snippets



Diane and Gary Matthews receiving their certificate of appreciation. Photo: Rod Randall, Department of Agriculture

Diane and Gary Matthews were presented with a certificate from the Department of Agriculture at the last general meeting of the Environmental Weeds Action Network. The certificate is in appreciation of their tireless work and boundless enthusiasm on numerous committees, groups and associations – all fighting the threat of environmental weeds.

Bronwyn Ryan who played a key role in the Skills for Nature Conservation Program, a joint initiative of the Swan Catchment Centre, Ecoplan and Greening Australia (WA) Bushcare Support has been appointed the Ribbons of Blue/Waterwatch WA State Facilitator. Ecoplan acknowledges Bronwyn's significant contribution to the initiation, support and extension of training and development for community bushland, wetland and waterways carers, and extends to Bronwyn best wishes in her new and important role.

The Perth Biodiversity Project (PBP) has been analysing surveys of Metropolitan Local Governments and will be producing some statistics on biodiversity in the Perth Metropolitan area. A summary of the survey results will be available on the PBP website <http://www.walga.asn.au/projServices/pbp>.

The PBP website also highlights that 27 of the 30 metropolitan Councils have signed a Memorandum of Understanding for the protection of native vegetation under their care. The MOU is with the WA Local Government Association.

The Urban Bushland Council is able to continue to offer support to friends groups managing urban bushland and facilitate partnership between them and local governments. Funding received through the Minister's Community Conservation Grants enabled the employment of Renata Zelinova as a project officer. Her part-time role is to provide advice and contacts to friends groups for the management of remnant urban bushland, prepare appropriate resources and organise workshops.

Renata will be known to many readers through her work with the Quinns Rocks Environment Group. She can be contacted at the UBC on 9420 7207 or ubc@inet.net.au between 9.30am and 2pm (except Wednesday).

Roger Harris has been appointed as the Centre Manager of the Herdsman Lake Wildlife Centre, bringing a fresh face to environmental education. Roger has been seconded from a teaching position at Morawa Agricultural College. Having taught country kids how to look after the environment, Roger is excited at the opportunity of helping city kids become aware of the fantastic natural environment just beyond their backyard. He can be contacted at the Centre on 9387 6079.



Roger Harris on the job at Herdsman Lake

Renae Stenhouse is seeking your knowledge about the ecology and management of urban native vegetation. Renae is a PhD student at the University of WA. As part of her studies she has conducted questionnaires and interviews nationally with local government bushland managers and now wishes to canvas the perspective of community management group members. (Note: you may have received the survey details via Ecoplan). Although Renae is hoping to have received all surveys by 30/9/02, she is keen to gain your opinions and experiences and thus able to wait a little longer. Please get them in as soon as possible. Renae can be contacted on 9380 3646 or rstenhouse@geog.uwa.edu.au.

Apace is offering a new service Apace natural design – Landscape Architectural Services designed and delivered by Ann Forma, a qualified landscape architect with experience in site history research and working with communities and local government and Apace colleagues. The service can provide site analysis (including flora and fauna surveys), conceptual landscape design, detailed plans, documentation and implementation. Ann can be contacted on 9336 1262.

Tuart Stakeholder and Community Workshops

These workshops listed in "What's On" will assist participants to:

- Find out how our tuart trees and woodlands are important for the environment, your organisation, and the community.
- Assist the development of the Government's Tuart Conservation and Protection Strategy and Action Plan.

Have your say at workshops conducted by the Tuart Response Group in September and October.

Programs and registration are available on the Department of Conservation and Land Management's official website at www.naturebase.net - or contact Michelle Anderson on 9474 7039 or michellea@calm.wa.gov.au to register your interest.

'Bush Links' a reality

by Alice Stubber

Production of 'Our Bushland' newsletter (refer Ecoplan News cover story, Issue 40, Summer 2002) is now in its 5th edition and includes information and news from 17 conservation groups active in the northern suburbs. A successful application for City of Wanneroo community funding will greatly assist in the continued expansion of this newsletter including its debut on the internet, thus reaching an even broader readership.

Wonderful news – thanks to the combined efforts of many conservation groups in the northern suburbs and the cities of Wanneroo and Joondalup, the application to the Perth Biodiversity Project for funding a major project to conserve locally significant bushland has been successful. *Bush Links* is a community-based project that integrates local government, professional bush regenerators and active community participation, to bring about ongoing management of eight urban bushland reserves in the cities of Wanneroo and Joondalup.

If you have any queries about the project or would like to get involved do not hesitate to contact the project coordinator Alice Stubber 9487 0632 or bushlinks@hotmail.com.



Don't forget the APACE Annual Plant Sale!

Saturday 2nd and Sunday 3rd November

Everything must go in APACE's annual clearance sale to make way for next year's stock. All plants 50¢ each.

Bats... urghhh!! Disgusting little rodents with wings aren't they?

It is no great revelation that bats have a severe image problem, most likely as a result of their nocturnal habits and the wandering imagination of humans. In reality, bats are an amazing group of animals, being the only mammals that can truly fly and one of a few that use echolocation as a navigation system. They can be broadly split into flying-foxes/fruit bats and microbats. The nine species occurring in the Perth region are insectivorous microbats feeding mainly on moths, beetles and flies.

Modified hands and a scoop-net

Bat wings are modified hands with a thin skin membrane stretched between the elongated fingers. In many species, another membrane is also stretched between the legs, enclosing the tail. This smaller membrane is used by many insectivorous species during flight as a scoop to catch insects before the bat bends its head down to eat the unfortunate prey – often whilst still in flight.

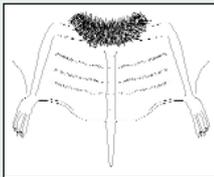


Figure 1: An example of the freetail, as seen in the Molossid bats.

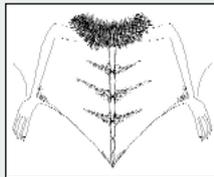


Figure 2: An example of the Vespertilionid tail, where the membrane completely encloses the tail.

Activity peaks

On a seasonal level, bat activity appears to be greater during spring and summer, presumably as a result of increased food availability and warmer night temperatures. Daily activity fluctuates over the nocturnal period usually with a peak just after dusk and then another before dawn. During winter months some bats will enter a state of torpor or hibernation.

One of the best places to observe bats is near a water body at dusk on a summer's day – thirsty bats that have just woken up will often fly in low over the water to take a drink and a range of audible calls are often heard.

Figures adapted from Churchill 1998.

Echolocation

Another feature that makes microbats so remarkable is their ability to use echolocation. They emit a series of high frequency pulses and by measuring strength, distortion and angle of the returning echoes, 'see' the position and/or movement of obstacles and prey. Different species utilise a different range of frequencies according to their hunting strategies.

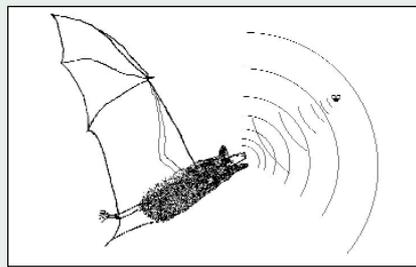


Figure 3: A basic representation of how a bat uses echolocation to 'see' its prey. Note also the wings are formed by a thin skin membrane stretched between 'elongated fingers'.

The echolocation call of the White-striped Freetail Bat descends into the frequency range audible to the human ear as a 'ting... ting... ting...' with the occasional series of pulses that sound like a marble dropping and bouncing in a tin can.

Juggling reproduction

To reproduce, bats need to carry their foetal young throughout pregnancy as well as cope with the physics involved in flying. Their response is a long pregnancy with usually only one offspring per year around late spring or early summer. Although this makes bats one of the slowest reproducing mammal groups, especially relative to their small size, it is compensated for by being relatively long-lived (most Australian bats are thought to live for 5-10 years, although 20+ year old individuals have been recorded).

Caution & commonsense - when handling a sick or injured bat, use gloves and take it to a wildlife carer. For anyone planning to work with bats on a more regular basis, it may be worth contacting your local GP and discussing immunisation against lyssavirus.

Some interesting "batty" websites and references include:

Australasian Bat Society (<http://batcall.csu.edu.au/abs>).

Australian Museum, includes photos (<http://www.amonline.net.au/bats/>).

Buzbee Bat-house Temperature Plot Website, includes links (<http://www.batbox.org/>).

Churchill, S.K. (1998) *Australian Bats*, Reed-New Holland, Sydney.

Menkhorst, P. and Knight, F. (2001) *A Field Guide to Australian Mammals*, Oxford University Press, Sydney.

Distinguishing features

Bat species occurring in the Perth region can be broadly separated into five main groups:

- **Freetail:** tail extending a considerable distance past the end of the tail membrane [White-striped Freetail Bat (*Tadarida australis*) and Western Freetail Bat (*Mormopterus planiceps*). Both belong to the Molossid family, whereas all other known bats in the metropolitan area belong to the Vespertilionid family].
- **Long-eared:** large ears that may be folded during rest [Lesser Long-eared Bat (*Nyctophilus geoffroyi*), Gould's Long-eared Bat (*N. gouldi*) and Greater Long-eared Bat (*N. timoriensis*)].
- **Wattled:** lobe or 'wattle' on the lower lip and another at the base of the ear [Chocolate Wattled Bat (*Chalinolobus morio*) and Gould's Wattled Bat (*C. gouldii*)].
- **Devil-eared:** ears quite 'pointy' [Southern Forest Bat (*Vespadelus regulus*)].
- **False pipistrelle:** large size compared to other Vespertilionid bats [Western False Pipistrelle (*Falsistrellus mckenziei*)].

Threats and impacts

Some of the natural predators of bats include pythons, goannas, butcherbirds, falcons and owls. However, our lack of knowledge about bats means that the impact we have on them is not well understood. As our local bats are insectivorous, anything impacting on the insect supply (e.g. pesticides) can also impact upon them. Local bats are usually tree-roosting species, so the clearing of any bushland is expected to reduce both roosting and foraging habitat.

On a brighter note, their ability to fly has meant that bats are often the only native mammals still utilising some smaller areas of remnant vegetation, although some species may be less willing to travel through the open areas between remnants.

OCTOBER

BUSHCARE MONTH

1 Tuesday 12–1pm

Course – Meet the Marsupials with the Dept of Conservation and Land Management (DCLM) Nearer to Nature. Yellagonga Regional Park, off Scenic Dr, Wanneroo. Call 9295 2244. Lots more N2N activities, visit www.naturebase.net.

1 Tuesday 7:30pm

Talk – Wetland Issues hosted by the Urban Bushland Council, at the National Trust, 4 Havelock St, West Perth. Call Renata 9420 7207 or Andrew 9450 3424.

2 Wednesday 12–1pm

Course – Meet the Marsupials with the (DCLM) Nearer to Nature program. Henderson Environmental Centre, Groat St, North Beach (behind the Primary School). Call 9295 2244.

2 Wednesday 2–3pm

Course – Birds of Prey with the (DCLM) Nearer to Nature program. The Hill Forest Discovery Centre, Mundaring. Call 9295 2244.

2 Wednesday 6–9pm

Workshop – Conserving our Tuarts. Stakeholder and community development of the Draft Tuart Conservation and Protection Strategy. Shire Hall, South Western H'way, Waroona. Call Michelle (DCLM) on 9474 7039.

3 Thursday 1–3:30pm

Course – Polywogs in Pools (hidden invertebrates) DCLM Nearer to Nature program. WA Gould League, Herdsman Wildlife Centre, off Flynn St, Churchlands. Call 9295 2244.

3 Thursday 6–9pm

Workshop – Conserving our Tuarts. Stakeholder and community development of the Draft Tuart Conservation and Protection Strategy. Falcon Pavillion, cnr of Flame and Lynda Sts, Mandurah. Call Michelle (DCLM) on 9474 7039.

3 Thursday 7:30pm

Talk – Pliocene Vegetation & Climate History in the Northern Sandplains by Prof John Dodson, Head of Dept of Geography, UWA. Hosted by the Wildflower Society (WA) Murdoch Branch. Cockburn Wetlands Education Centre, Lot 387 Hope Rd, Bibra Lake. Call Raimond on 9434 5057.

4 Friday

Workshop – Groundwater with Ribbons of Blue/Waterwatch WA. Aimed at the beginner level, with a visit to a local monitoring site. Contact Nicole Hartog on 9278 0644.

4 Friday 7:30pm

Talk – Nyoongars and their role in conservation with Joe Northover hosted by the WA Naturalists' Club. University Extension Lecture Theatre, UWA, Clifton St, Nedlands. Call 9228 2495.

4 Friday 6:30pm

Activity – Family Frog Fun Night! Explore fascinating life-cycle and identifications with an expert guide. Hosted by Naragebup – Lake Richmond (parking in Lake St), Rockingham. Call Naragebup 9591 3077.

5 Saturday 9am

Active – Project morning at Lake Richmond Nature

9 Wednesday 7–8:30pm

Course – Attracting Birds to Your Garden. A 'Quality Living' short course by Naragebup - Safety Bay Rd (opposite Lake Richmond), Peron. Call 9591 3077.

10 Thursday 7:45pm

Talk – Flora for Fauna by Jackie Hooper. Hosted by the Wildflower Society (WA), History House, Jull St, Armadale. Call Judy 9525 5249.

10 Thursday

Workshop – Groundwater with Ribbons of Blue/Waterwatch WA. Call Nicole Hartog on 9278 0644.

11 Friday

Workshop – Taking the next step with Ribbons of Blue/Waterwatch WA. This workshop is aimed at groups with at least a year's involvement with Ribbons of Blue. Call Nicole on 9278 0644.

12 Saturday 8–9am

Walk – Guided nature walk with the Friends of Koondoola Regional Bushland as part of Wild Things Envirofest. Meet at display shelter, north-east junction of Koondoola and Burbidge Aves (Gate 2). Call Alice 9306 3221.

12 Saturday 9:30am–1pm

Workshop – Skills for Nature Conservation Helping Your Local Community Protect Your Bushland and Wetland with David Hancock (Friends of Yellagonga Regional Park), David Wake (Friends of Quinns Rocks). How to be involved in your local bushland and wetland, by joining a 'Friends' group or starting your own. DCLM, Woodvale. Call SCC 9374 3333.

12 & 19 Saturdays 1–3pm

Course – Shutterbugs Photo Rally: Sessions A & B with the DCLM Nearer to Nature program. Margaret Forrest Centre (nr Ranger's Office) in John Forrest National Park. Call 9295 2244.

12 Saturday 2pm

Walk – Spring flower walk with Friends of Periwinkle Bushland. The gate opposite Mullaloo Heights Pre-Primary School, Charonia Rd. Call Dot 94013724.

12 Saturday & 13 Sunday

Open Gardens – Members of the Wildflower Society are opening their native gardens. Atkin's Garden, 21 Hartung St, Mundaring. Call Mary 9271 5707.

13 Sunday – 20 Sunday

WEEDBUSTER WEEK – What will you be doing? To register or to check the Weedbuster Week events calendar log onto www.weedbusterweek.info.au or contact Sandy Lloyd 9368 3760.

13 Sunday 8:30am

Active – Coastal bushcare at Quinns Rocks. Help weed out the Brazilian Peppers and enjoy the wildflowers with the Quinns Rocks Environmental Group. Meet on Seaham Way (near Kinsale Dve), Mindarie. Call Karyn 9305 1405.

13 Sunday 9am–12pm

Active – Weeding and planting at Brookside Park (west end near Brooking Rd), Parkerville. Call Jenny 9295 4467.

13 Sunday 10am–1pm

Foray – WA Insect Study Society and Bungendore Park Management Committee sightings and collection. Meet at Bungendore Park, Admiral Rd entrance, Bedfordale. Park gates will be padlocked once the cars pass through. Call Kim 9473 0005.

14 Monday to 16 Wednesday

20 Sunday 9am–12pm

Active – General bushcare at Hovea Conservation Pk, Hedges Rd, Hovea. Call Herbie 9298 8218.

20 Sunday 2pm

Celebration – Official Naming of 'Nan Macmillan Reserve'. All welcome. Please bring your own hot drink and enjoy the scones that will be provided in memory of Nan. Lionel Rd and Gr Eastern H'way, Darlington (use Bilgoman Swimming Pool carpark, opp reserve). Call Judy or Doug on 9299 6989.

21 Monday 8am

Walk – Guided Bird Walk of Carine Lake with Michael Hancock and Birds Australia (BA). Meet in carpark off Beach Rd. Call BA 9383 7749.

22 Tuesday 8am

Walk – Guided Bird Walk of Lake Joondalup with Tom Delaney and Birds Australia (BA). Meet at Neil Hawkins Park, in carpark at east end of Boas Ave. Call BA 9383 7749.

23 Wednesday 8am

Walk – Guided Bird Walk of Pelican Point with Max Bailey and Birds Australia (BA). Meet at gazebo opp Mounts Bay Sailing Club, Australia II Dve, Crawley. Call BA 9383 7749.

24 Thursday 8am

Walk – Guided Bird Walk in Kings Park with Frank O'Connor and Birds Australia. Carpark, northern end of Forrest Dve. Call 9383 7749.

24 Thursday 7:30–9:30pm

Talk – Conservation Matters, an information & discussion evening hosted by Conservation Council – open to all. Speakers include Martin Copley (Australian Wildlife Conservancy, TBC), Nicole Hodgson (WA Collaboration) and Jay Anderson (WA Speleological Soc). Lotteries House, 2 Delhi St, West Perth. Call 9420 7266 or Colma 935 49734.

25 Friday

Walk – Calingiri Wildflower Walk conducted by Victoria Plains Tourist Association. Call Linda on 9628 7029 or Betty on 9628 7121.

25 Friday 8am

Walk – Guided Bird Walk of Alfred Cove with Les Harris and Birds Australia (BA). Meet at Troy Park, Burke Dve. Call BA 9383 7749.

26 Saturday 8am

Walk – Guided Bird Walk in Bold Park with Brice Wells and Birds Australia (BA). Carpark on Reabold Hill Scenic Dve, Floreat. Call 9383 7749.

26 Saturday 9am–4:30pm

Course – Skills for Nature Conservation seminar River Processes, Ecosystems and Management with staff from Water and Rivers Commission, Rob Donohue, Verity Klemm, Peter Muirden, Dr Clare Taylor, Dr Kerry Trayler and Phyllis Graham (SCC). This seminar will provides an understanding of rivers and interaction with their catchment. SCC Middle Swan. Call 9374 3333. RSVP by 11/10.

26 Saturday 9am

Active – Bush Care Day tackling a target weed in Trigonometric Reserve with Bush Links. Sausage sizzle. Meet at Truslove Way, Duncairn. Call Alice on 9487 0632.

26 Saturday 10am–3pm

Open Day – Celebrating National Bird Week with Birds Australia. Learn more about birds, their

10 Sunday 9am–12pm

Active – Weeding and planting at Brookside Park, Parkerville (opp Parkerville Tavern). Call Jenny 9295 4467.

12 Tues to 18 Mon RECYCLING WEEK

12 Friday

Workshop – Taking the next step with Ribbons of Blue/Waterwatch WA. Aimed at groups with at least a year's involvement with Ribbons of Blue. Contact Nicole Hartog on 9278 0644.

Nov 12 Tuesday to 14 Thursday

Course – Plant Propagation with Apace Aid Inc. Note, only small admin cost, as you will be assisting the nursery as you learn. Register with Apace on 9336 1262.

13 Wednesday

Workshop – Groundwater with Ribbons of Blue/Waterwatch WA. Aimed at the beginner level, with a visit to a local monitoring site. Contact Nicole Hartog on 9278 0644.

15 Friday 7:30pm

Talk – Jewel Beetles by David Knowles. Hosted by the WA Naturalists' Club at Naragebup – Safety Bay Rd (opposite Lake Richmond), Peron. Call Naragebup 9591 3077.

15 Friday 7:30pm

Walk – Guided night walk with the Friends of Koondoola Regional Bushland. Meet at display shelter, north-east junction of Koondoola and Burbidge Aves (Gate 2). Call Alice 9306 3221.

16 Saturday 7am

Walk – Early morning bird walk at Herdsman Lake Wildlife Centre. Call Gould League 9387 6079.

16 Saturday 8am

Walk – Guided nature walk with the Friends of Lake Gwelup. Meet at the scout hall, Huntriss Rd, Gwelup. Call Betty 9444 5640.

16 Saturday 9am–12:30pm

Course – Skills for Nature Conservation seminar Successful Funding Applications - Sharing the Secrets with Linda Taman (Bennett Brook Catchment Group), John Carter (DCLM) and Margo O'Byrne (Ecoplan). This half day seminar will help you obtain the funding your project needs to get underway and to ensure its ongoing success. Herdsman Lake Wildlife Centre, Wembley. Call SCC 9374 3333.

17 Sunday 9am–12pm

Active – Bush regeneration with the Friends of Warwick Bushland. Meet at the Warwick Senior High School carpark, off Erindale Rd. Call Robyn 9342 6840 or Karen 9342 8482.

17 Sunday 9am–12pm

Active – General bushcare at Hovea Conservation Pk, Hedges Rd, Hovea. Call Herbie 9298 8218.

18 Monday

AGM – Greening Australia (WA) Annual General Meeting. Call Jennifer on 9335 8933.

Nov 19 Tuesday to 21 Thursday

Course – Seed Collection with Apace Aid Inc. Register with Apace on 9336 1262.

22 Friday 7:30pm

Walk – Guided nocturnal walk with Friends of Star Swamp Bushland. Henderson Environment Centre,

What's on

Opportunities for you to participate! Visitors always welcome and most activities are FREE!

Bunbury/Busselton Region

Bunbury Naturalists' Club meetings are held every second Tuesday of the month at 7:30pm, Lotteries House, Victoria St, Bunbury. Outdoor excursions on the Saturday following the 2nd Tuesday. Call Shirley 9791 5915, Gordon 9797 0673 or Olga 9726 3181. Visitors welcome.

For Busselton Naturalists' Club activities confirm details by calling Bernie on 9727 2474 (h) or 9752 1949 (w), bmasters@inet.net.au. Meetings are now held at the Busselton Senior Citizens' Centre, Marine Parade, 34 Peel Terrace

Reserve - maintenance and conservation of the rare Lake Richmond thrombolites, wetland and wildlife with WA Naturalists' Club at Naragebup - Safety Bay Rd (opp. Lake Richmond), Peron. Call 9591 3077.

5 Saturday 9am

Walk - Guided nature walk in Kinsale Reserve with David Pike as part of Bush Links project. Meet cnr of Kinsale Dve and Duncannon Rise, Mindarie. Call Alice on 9487 0632.

5 Saturday 9am-12pm

Hands-on - Weeding and planting at Falls Park, Victoria Rd, Hovea. Call Jenny 9295 4467.

5 Saturday 9am-1:30pm

Course - Skills for Nature Conservation seminar Down to Earth - Understanding the Values of Soil with A/Prof Lynette Abbott (UWA) and Dr Jim Burrows (CSIRO). Cockburn Wetlands Education Centre, Hope Rd, Bibra Lake. Register with the SCC 9374 3333. RSVP essential.

5 Saturday 1pm

Walk - Guided nature walk in Trigonometric Reserve with David Pike, as part of Bush Links project. Meet at the entry to the bushland in Truslove Way, Duncraig (see also morning Bush Links walk in Mindarie). Call Alice on 9487 0632.

6 Sunday 9am

Active - Regular work day plus monitoring, with Friends of Baigup. Meet at Hinds Reserve, Milne St, Bayswater. Call Harry on 9271 3242.

6 Sunday 9-11am

Walk - Active walk with the Friends of Ellis Brook Valley. Meet at Hillside Farm, end of Hayward Rd, Martin. Call Heather on 94592045.

6 Sunday 10am

Active - Annual Gladioli Pull and Planting at Cockburn Wetlands Education Centre, Hope Rd, Bibra Lake. Call Denise 9417 8460.

7 Monday WORLD HABITAT DAY

7 Monday to 11 Friday

Active - Bushland Care activity with Conservation Volunteers Australia (CVA) at Yellagonga Regional Park. Transport from Fremantle. Call 9336 6911.

8 Tuesday 12-1pm

Course - Wriggly Reptiles with the DCLM Nearer to Nature program. Beeliar Regional Park - Cockburn Wetland Education Centre, Hope Rd, Bibra Lake. Call DCLM on 9295 2244.

8 Tuesday 6-9pm

Workshop - Conserving our Tuarts. Stakeholder and community development of the Draft Tuart Conservation and Protection Strategy. Herdsman Lake Wildlife Centre, cnr of Flynn and Selby Sts, Wembley. Registration required for catering and seating. Call Michelle on 9474 7039.

8 Tuesday 7:30pm

Talk - WA's Wonderful Jewel Beetles by David Knowles. Hosted by the Wildflower Society (WA) Perth Branch. Subiaco Community Centre, Bagot Rd, Subiaco. Call Greg 9481 4062.

9 Wednesday 7pm

Forum - Community forum on Neerabup National Park organised by the Lake Neerabup Rural Group and Quinns Rocks Environmental Group. Flora and fauna of the park and management issues. Call Jo 9407 5121 or David 9305 9575.

14 Monday to 18 Wednesday
National Conference - Making Tracks 2002. Coordinated by the Dept of Sport and Recreation. Mandurah. Focus sessions include 'heritage and environmental links'. Call Trailswest on 9387 9700.

15 Tuesday 7:30pm

Talk - Native Grasses by Alex Williams and Una Bell. Hosted by the Wildflower Society (WA) Northern Suburbs Branch. Kingsley Hall, Kingsley Dve. Call Brian 9401 6847.

16 Wednesday 7:30pm

Lecture - 2002 Serventy Memorial Lecture hosted by the WA Naturalists' Club. Sustainability, Science and Society in WA Forest Management presented by Dr Michael Calver, Murdoch University. Admission \$7, students \$3. Murdoch Lecture Theatre (Arts Building), UWA. Call 9387 3297.

18 Friday 7:30pm

Talk - Marine Turtles. Hosted by the Kwinana/Rockingham/Mandurah Branch WA Naturalists' Club at Naragebup - Safety Bay Rd, Peron. Call 9591 3077.

18 Friday 7:30pm

Walk - Guided night walk to see frogs, spiders and other wildlife with the Friends of Lake Gwelup. Meet at the scout hall carpark in Huntriss Rd, Gwelup. Call Betty 9444 5640.

19 Saturday 7am

Walk - Early morning bird walk at Herdsman Lake Wildlife Centre. Call Gould League 9387 6079.

19 Saturday 8am

Walk - Guided nature walk with the Friends of Lake Gwelup. Meet at the scout hall, Huntriss Rd, Gwelup. Call Betty 9444 5640.

19 Saturday 9am

Active - Ecoplan/CVA Bushland Care Day at Talbot Road Bushland. Meet at Sava Cove, Stratton. BBQ lunch provided. Call 9336 6911.

19 Saturday 9am

Active - Bush Care Day tackling a target weed. Sausage sizzle. Meet cnr of Kinsale Dve and Duncannon Rise, Mindarie. Call Alice 9487 0632.

19 Saturday 9am-2:30pm

Workshop - Arum Lily Seminar & Excursion Environmental Weeds Action Network as part of Weedbuster Week. Field excursions to Arum Lily control sites, presentations, discussions and refreshments. Call Diane on 9457 2896.

19 Saturday 10am-12 noon

Walk - Guided Kadina Brook with Vicki Laurie, Nature Reserves Preservation Group. Focus on the restoration activities accomplished by the Group. Meet next to the Kadina Brook Sign on John Farrant Dve. Call Loretta 9257 9999.

20 Sunday to 27 Sunday BIRD WEEK

See below for activities hosted by Birds Australia.

20 Sunday to 28 Monday WATER WEEK

20 Saturday 8am

Walk - Guided with Friends of Star Swamp Bushland. Meet at Henderson Environment Centre, Groat St, North Beach. Call Christine 9447 2983.

20 Sunday 9am-12pm

Active - Bush regeneration with the Friends of Warwick Bushland. Meet at the Warwick Senior High School carpark, off Erindale Rd. Call Robyn 9342 6840 or Karen 9342 8482.

habitat - maintenance and conservation of the rare Lake Richmond thrombolites, wetland and wildlife with WA Naturalists' Club at Naragebup - Safety Bay Rd (opp. Lake Richmond), Peron. Call 9591 3077.

27 Sunday 9-11am

Walk - Guided Piessie Brook Fauna Walk with John Dell. Meet at the end of Schipp Rd at the entrance to the Kalamunda National Park. Call Loretta Bean on 9257 9999.

27 Sunday 10am-2:30pm

Course - Bush Survival Skills with the (DCLM) Nearer to Nature program. Henderson Environmental Centre, Groat St, North Beach (behind North Beach Primary School). Call 9295 2244.

NOVEMBER

1 Friday 7:30pm

Talk - Bobtails with Mike Bamford hosted by the WA Naturalists' Club. University Extension Lecture Theatre, UWA, Clifton St, Nedlands. Call 9228 2495.

2 Saturday 9am-12pm

Active - Weeding and planting at Falls Park, Victoria Rd. Hovea. Call Jenny 9295 4467.

2 Saturday 9am-1:30pm

Course - Skills for Nature Conservation seminar Making the Most of Fauna Tracks & Traces with Shane Heriott (Touch the Wild) at Piney Lakes Environmental Education Centre, Melville. This introductory course is designed to show participants how to undertake basic, non-intrusive observations of fauna. Call SCC 9374 3333. RSVP by 18/10.

3 Sunday 1-3:30pm

Seminar - Bushland for Cockatoos hosted by Bungendore Park Management Committee. Our Black cockatoos are in crisis. Hear about some of the research being done by the WA Museum and the UWA Zoology Department to prevent their extinction. Bedfordale Hall, Admiral Rd. No charge, registration essential. Call Kim 9473 0005.

4 Monday to 8 Friday

Conference - Coast to Coast 2002, Australia's National Coastal Conference. Call Sally Brown, Conference Connections 07 3201 2808 or visit www.coastal.crc.org.au/coast2coast2002.

5 Tuesday to 7 Thursday

Course - Seed Collection with Apace Aid Inc. Register with Apace on 9336 1262.

5 Tuesday 7:30pm

Talk - Bennett Brook Flora Survey by Kirsten Tullis. Hosted by the Urban Bushland Council at the National Trust, 4 Havelock St, West Perth. Call Renata 9420 7207 or Andrew 9450 3424.

6 Wednesday 7-8:30pm

Course - Attracting Butterflies to Your Garden. A 'Quality Living' short course designed and delivered by Naragebup - Safety Bay Rd (opposite Lake Richmond), Peron. Call 9591 3077.

8 Friday

Workshop - Preventing Fire in Our Bushland hosted by the Urban Bushland Council. Call Renata 9420 7207.

9 Sunday 8-9am

Walk - Guided nature walk with the Friends of Koondoola Regional Bushland. Meet at display shelter, north-east junction of Koondoola and Burbidge Aves (Gate 2). Call Alice 9306 3221.

Groat St, North Beach. Call Christine 9447 2983.

23 Saturday 8am

Walk - Guided with Friends of Star Swamp Bushland. At Henderson Environment Centre, Groat St, North Beach. Call Christine 9447 2983.

23 Saturday 9am

Course - Creating Fauna Friendly Back Yards. Register early with Loretta Bean on 9479 4808.

26 Tuesday to 28 Thursday

Course - Plant Propagation with Apace Aid Inc. Only small admin cost, as you will be assisting the nursery as you learn. Call on 9336 1262.

30 Saturday

Celebration - End of Year Celebration hosted by the Swan Catchment Centre, Ecoplan and Greening Australia WA (Bushcare Support) to recognise the significant contribution made by community volunteers. Call 9374 3333.

30 Saturday 6-8pm

Walk - Night-time fauna foray with John Dell. Hosted by the Shire of Kalamunda and the Darling Range Branch of the Wildflower Society and the Nature Reserves Preservation Group. Meet at the Lions Club lookout immediately east of the Crystal Brook & Welshpool Rds intersection. Don't forget to bring a torch! Call Loretta Bean on 9257 9999.

DECEMBER

1 Sunday to 7 Saturday

COASTCARE WEEK Contact Cathy Ronalds, Coastwest/Coastcare Regional Coordinator on 9213 2065 for opportunities to participate.

1 Sunday 9am-12pm

Active - Weeding and planting (in the shade!) at Brookside Park, Parkerville (opp Parkerville Tavern). Call Jenny 9295 4467.

3 Tuesday to 5 Thursday

Course - Seed Collection with Apace Aid Inc. Register with Apace on 9336 1262.

8 Sunday 9am-12pm

Active & Celebration - Bush regeneration and Christmas Celebration with the Friends of Warwick Bushland. Meet at the Warwick Senior High School carpark, off Erindale Rd. Call Robyn 9342 6840 or Karen 9342 8482.

10 Tuesday to 12 Thursday

Course - Plant Propagation with Apace Aid Inc. Assisting the nursery as you learn. Call 9336 1262.

14 Saturday 8-9am

Walk - Guided nature walk with the Friends of Koondoola Regional Bushland. Meet at display shelter, north-east junction of Koondoola and Burbidge Aves (Gate 2). Call Alice 9306 3221.

17 Tuesday to 19 Thursday

Course - Seed Collection with Apace Aid Inc. Register with Apace on 9336 1262.

21 Saturday 7am

Walk - Early morning bird walk at Herdsman Lake Wildlife Centre. Call Gould 9387 6079.

21 Saturday 8am

Walk - Guided nature walk with the Friends of Lake Gwelup. Meet at the scout hall, Huntriss Rd, Gwelup. Call Betty 9444 5640.

Perth Metropolitan Region

Centre meeting room, 24 Reef Terrace. Visitors welcome.

Leschenault Community Nursery

For more information on how to be involved in the Community Nursery, call Shirley 9791 5915.

OCTOBER

8 Tuesday 7:30pm

Bunbury Nats' talk - Noisy Scrub Bird Reintroduction by Sarah Comer (DCLM).

9 Wednesday

Busselton Nats' talk - Fire and Vegetation in Pre-Aboriginal Days: evidence from sediments in a meteorite crater north of Gingin by Dr Kingsley Dixon (Research Scientist, Kings Park Botanic Gardens).

11 Friday to 13 Sunday

Busselton Nats' excursion - camping at Clare, Bernie and Carolina Masters' 103 hectare bush block south of Darkan.

17 Thursday

Bus trip - Leschenault Community Nursery visit to revegetation sites that have used nursery plants. Followed by a picnic for volunteers.

20 Sunday

Busselton Nats' excursion - vegetation and waterbirds at the Locke Estate, plus visits to private bushland with Dennis Cooper.

NOVEMBER

12 Tuesday 7:30pm

Bunbury Nats' talks - Tasmanian Visit by Dick Shore and Wellington Dam National Park Plans by Graham McCurcheon.

13 Wednesday 7:30pm

Busselton Nats' talk - Wonders of Our Marine Environment by Jane Hough (General Manager, The Aquarium of WA (formerly Underwater World)).

24 Saturday

Busselton Nats' excursion - Geology of the Cape to Cape Region with Glennis Hall and/or Jodi Marnham (Geological Survey of WA).



These events are forwarded for inclusion in the Swan Catchment Centre's monthly information sheet and

Riverlink web site at www.wrc.wa.gov.au/swanavon as well as the Environmental Education Network.

Please send us your January, February and March events by 1 December 2002.

REGIONAL REPORTS



All groups welcome visitors and new members.

North West Region

Bushcare at Quinns Rocks

by David Wake & Renata Zelinova

Thanks to all who took part in the Bushland Care Day supported by Ecoplan and Conservation Volunteers Australia (CVA) at Wattle Park on 29 June. Local residents and helpers from CVA removed weeds, targeting Rose Pelargonium (*Pelargonium capitatum*). Margo O'Byrne spotted a Australian Kestrel during the lunch break, adding another species to the bird list!

Japanese/Brazilian Pepper (*Schinus terebinthifolius*) is proving to be a persistent problem in regionally significant bushland on coastal limestone near the Quinns Rocks Caravan Park. Although there are not yet dense thickets of the plant, its rapid regrowth is of concern as this woody weed shades other plants and changes the structure of the bush. Its bright red berries, held on the plant from April through October are eaten by birds that disperse the seed. The group has held a few bush care days where work has included cutting down large bushes and painting the cut stump with glyphosate. Unfortunately, the response of many plants has been vigorous suckering. Our next steps will be to follow the Environmental Weeds Action Network's advice and apply herbicide using basal bark and stem injection techniques.

The Quinns Rocks Environmental Group together with the Friends of Burns Beach Bushland held a forum 'Nature Rich and Rare' focussing on biodiversity and threatened species in the local area. Raquel Carter, Threatened Species Network Coordinator with the World Wide Fund for Nature and John Blyth of the Department of Conservation and Land Management spoke about threatened species and what the community can do to help. Carnaby's cockatoo, which you might see flying overhead or feeding on Parrotbush at the moment, is one of these threatened species. Retaining large areas like Burns Beach bushland and Neerabup National Park as well as smaller remnants in urban areas is important to conserve this biodiversity.

Contact David on 9420 7268 or Renata on 9305 9382.

Understanding Periwinkle

by Rene Duthie

The Friends of Periwinkle continue activities of getting to know their bushland, actively managing the area and encouraging others to participate. Winter saw 500 seedlings planted with help from the local community, Friends of Korella Park Bushland and the Mullaloo Heights Primary School. In addition, a class from the same primary school assisted in collecting local seed for regeneration. Knowledge of the bushland continues to increase with fungi, native plants and weeds as well as migratory and resident fauna identified, photographed and recorded. Recent observations have included: several lizards, kookaburras, galahs, twenty-eights, honey eaters, a tawny frogmouth and a boobook owl.

Contact Dot Lullfitz on 9401 3724.

North East Region

Discovering fungi in Dianella

by Jan Bant

In preparation for our fungi walk to be led by Kirsten Tullis, we prepared a large display to inform and encourage others to join us. This impressive display of assorted maps, information notes and 49 photos was initially set up in the Dianella library and will now tour the other libraries (Mirrabooka, Osborne Park and Inglewood) within our 'catchment area'.

Contact Jan on 9344 2872.

Spring activity in Koondoola

by Alice Stubber

A very pleasant mid-week walk was held in Koondoola in late August to thank the members of the Wildflower Society for assisting us by identifying some of our more tricky specimens. The group got to see the real thing – not just flat, dried plant specimens. We were blessed with lovely weather, time to picnic afterwards and to catch up on all the news. Neil Gibson, a botanist with DCLM kindly gave his time on the same day to help re-locate the two plant community quadrats that he established for Koondoola 10 years ago. We found one site with all four corner pegs still in place and the other with one peg in place and a couple more close by, enough to easily re-establish it.

We will be celebrating Biodiversity Month by mounting a display at the City of Wanneroo. The display will focus on the web of life and the many wonderful plants and animals we have in our local environment. We will also identify the threats to biodiversity and how the community as a whole can help make a difference.

During September the City of Wanneroo Safe Citizens program will be holding **Wild Things**, an environmental festival in Koondoola Park. We will contribute by mounting a photographic display and conducting a number of short guided walks to introduce the public to the bushland.

Contact Alice on 9306 3221.

Central

New techniques learnt at Baigup

by Harry Bastow

Recent dedication by the Friends of Baigup has resulted in the removal of the water weed *Salvinia* that had become highly active in the filtering lake. This difficult task was very hands-on, using nets to haul the weed out of this important habitat.



Baigup a 'Jewel of the Swan' Photo: Harry Bastow

Our Bushland Care Day in August sponsored by Ecoplan and Conservation Volunteers Australia (CVA) was also very successful with much work being done by many volunteers. In addition special thanks must go to Ecoplan who coordinated the expertise, skills and very enthusiastic labour content! CVA also demonstrated a number of new and practical techniques.

Contact Harry on 9271 3242.

REGIONAL REPORTS

Hands-on at Wireless Hill

by John Mackay



The Friends of Wireless Hill (FOWH) hosted the launch of the 2002 Bushland Care Days, on Sunday 23 June. Sponsored by Ecoplan and Conservation Volunteers Australia (CVA), the day was an outstanding success with the Minister for the Environment, the Hon Judy Edwards officially launching the season. Mr Keiran McNamara, A/CEO Department of Conservation and Land Management (DCLM) took the opportunity to formally welcome Ecoplan to DCLM. The local member for Alfred Cove, Dr Janet Woollard and the Mayor of Melville, Katie Mair were able to join the celebrations, meet the volunteers and get a close-up look at the efforts of the FOWH. The Mayor launched a "Bushland Trailer" containing tools for the use of all Friends groups within the City.

Over 60 volunteers including many families turned up to lend a hand. They came from the local community, CVA, FOWH, DCLM and the Department of Environmental Protection. Together we accomplished the planting of over 2 500 plants, the removal of a number of large patches of weeds and the construction of a huge barrier to block off an informal path. Special thanks go to all who participated, including Ecoplan and FOWH for the super spread of savouries, cakes and treats throughout the day, with doggy bags for every one!

Contact John on 9317 1222.



Some of the 60 Bushland Care Day volunteers weeding and planting at Wireless Hill Park. Photos: Margo O'Byrne and Colma Keating.

Invertebrates in Shenton Bushland

by Dani Boase-Jelinek

University of Western Australia students Vanessa Harris and Dianna Buglyo spent their summer holidays collecting insects to provide base-line data about the invertebrate fauna of Shenton Bushland. Vanessa and Dianna have now completed their report. One of the interesting findings of the study was that disturbed areas of the bushland recorded a higher population of invertebrate fauna than the better areas. They recommended that we continue monitoring invertebrate fauna, especially ants, as these can provide useful information about biodiversity changes in the bushland.

Contact Dani on 9381 3470.

Hills Region

North Darlington celebrates 'Nan'

by Judy and Doug Love

Over the past five and a half years we have recorded 1 100 person-hours of work contributed by all sorts of volunteers including our own Friends group. Although the five years prior also saw much effort, we unfortunately have no record of time contributed. However, in celebration of these milestones and the contribution of one particular volunteer, we are delighted to announce that our reserve is to be officially named 'Nan Macmillan Reserve'. Born in 1910, Nan had strong links to the reserve, living around it for most of her 88 years and was actively involved with the Tree Society and the Wildflower Society. Nan was a local person who truly loved our bushland and did what she could to protect it.

Mr Max Williams, the chief executive officer of the Shire of Mundaring will perform the official naming ceremony on Sunday 20 October. All are welcome. Please bring your thermos of coffee/tea and enjoy the scones which will be provided in memory of Nan (see *What's On* for details).

Call Judy or Doug on 9299 6989.

Focussed activity in the Eastern Hills

collected by Jenny Johnson

An early start to the planting season, due to rain in May and June has resulted in many areas in the Eastern Hills being revegetated with local species. Although July and August rainfall have been below

expectation, groups are hopeful that the early planting will ensure a more successful survival rate for the coming summer. Many of us do not have the resources to water plants over long dry periods and so rely on planting the right plant, in the right place, at the right time of the year!

Heritage Trail – Parkerville: The Ecoplan/Conservation Volunteers Australia (CVA) Bushland Care Day (28 July) was the catalyst for a huge cast of volunteers from CVA, Woodside, Scouts, Rangers, Cubs, Edith Cowan University and local residents to enjoy a great day on the Heritage Trail. Energy sapping tasks such as planting, weeding, woody weed removal, erosion control, path making and mulch spreading ensured all volunteers tucked into the feast provided by Ecoplan and the Jane Brook Catchment Group. The enormous amount of revegetation activity achieved was well worth the effort of coordinating over 150 volunteers!

Clifton Reserve – Chidlow: This reserve includes Cookes Brook which flows into Lake Leschenaultia. Concern has been raised about the increasing salinity level of the water and general degradation. A new friends group has been formed to restore habitat with local flora. It will also be used as a demonstration site for rehabilitation techniques for creeklines, wetlands and bushland.

Lion Mill Creek – Mt Helena: Ground preparations for our planting day (22 September) are going well and plantings from the last two years are doing brilliantly in spite of the weather! The group has taken on the care of another reserve in the catchment that abuts the Lake Leschenaultia Conservation Area.

Rocky Gully Catchment Group – Mt Helena: We have had good meetings with some new, young and enthusiastic families moving into the catchment. Mary Woodward gave us an interesting talk on frogs and we went for a walk in a wetland area where we were successful in finding tadpoles and frogs.

Hovea Conservation Park: Weeding, planting and erosion control projects have continued with a great effort by a group of students from Guildford Grammar School.

Parkerville Village Reserves: The group has been busy planting with assistance of exchange students from Sasa Yama High School in Japan.

Contact Jenny on 9295 4467 or Linda on 9290 6666.

REGIONAL REPORTS

Rallying around for Piesse Brook

by Lara Stanley

Although some bad and very sad luck has befallen the Friends of Piesse Brook and their families including Linda Stanley, Gerry Brown and Vikki Batt, the group has pulled together to continue their great coordination, communication and on-ground work. We were very pleased to achieve the removal of the final clump of bamboo in the zone that we have been working on this year. Vin and Sue very kindly came to assist our group at our time of need, even though they have a huge task of their own in the work they are doing on the Railway Reserve area.

In order to keep progress happening we have split all the jobs into smaller tasks and spread them amongst the group. Linda from her recuperation bed, employs "Please, everyone if you can spare two hours once a month to assist in keeping the progress happening please, please assist the wonderful handful of people who have been working so hard and achieving so much".

Contact Brian Sparkes 92933 813

South East Region

Woody weeds at Ellis Brook Valley

by Heather Bowler

The Friends working group has been busy over the last few months. Three mornings were spent cutting back the vegetation on an exit fire track above the falls. Next was clearing the water bars on the newly constructed path. The winter rain had backed up soil against them and allowed water to flow over, causing erosion to the path. Then it was getting rid of the Victorian Teatree on Lot 3-4 Rushton Road. Contractors had been paid \$2 000 to do the job over two days, but because of the rain they did very little, removing only a small section. We rallied and have now spent 30 hours cutting down, poisoning stumps and pulling up plants adding up to about four times the amount of work done by the contractors. All this Teatree has been pulled out to the roadside into a huge heap showing the Council just how much work we have done. A few hours have also been dedicated to the road verges on Lot 1, removing Geraldton Wax and Teatree, resulting in more heaps to be removed by the Council.

Because of water restrictions we only had 180 plants to use in revegetation areas this year.

The seed that was retained was smoked in jars, mixed with ash and soil and then used for direct seeding.

Contact Heather on 9459 2045.

Riverbank protection for the Canning

by David Gribb

The banks of the Canning River in Kelmscott breathed a sigh of relief when three local volunteers helped the Armadale Gosnells Landcare Group to protect the river banks with logs and stones. The banks suffer from erosion during high flows in winter and were void of vegetation to hold them together. A local tree lopper donated the Eucalyptus logs that were placed on the eroding banks and pinned in with 600mm Jarrah stakes. The logs were then secured to the stakes with galvanised wire and u-shaped nails. This method was successful and the logs have shown no sign of movement during high flows. Rushes, sedges and shrubs will eventually be planted behind the logs for further stabilisation of the soil.

Contact David on 9399 0622.

Bush Rangers help the Canning

by Grecian Sandwell



Students from the Rossmoyne Bush Rangers working on the Shelley foreshore after school. Photo: Colma Keating

To celebrate National Tree Day, the Department of Conservation and Land Management Rossmoyne Bush Rangers (RBB) joined the Canning River Residents Environmental Protection Association (CRREPA) in a foreshore restoration project. The 28 students with assistance from eight Rossmoyne Senior High School staff and CRREPA members planted rushes and sedges along with a few paperbarks in an area prepared by the Canning City Council (CCC). The plants were grown from local seed by the students, CRREPA member Max Risbey and the Council. The RBB contribution was a great boost to the other voluntary work being done along the Canning River.

Contact Grecian on 9354 9734.

South West Region

Naragebup extending stewardship to students

by Ann Goodale

Naragebup – Rockingham Regional Environment Centre continues to cover a wide focus including bushland, schools, marine, coastal and opportunities for students.

The Natural Resource Management Office (NRMO) is currently developing management plans for small areas of bushland near the Koorana and Port Kennedy Primary Schools. These reserve plans will incorporate an educational program to involve students in an 'outdoor classroom' to learn about local native flora and fauna and encourage respect and stewardship for the reserve and surrounding environment.

An important landmark for local coastal and marine regions began in July at the Marine Management Forum hosted by Naragebup. Speakers and participants established ground rules for future caring, monitoring, research and educational projects needed to ensure the preservation of our fragile coast and marine waters. In support of this, the

Environment Centre has a series of marine and coastal activities including opportunities for marine science students, thus providing a practical opportunity for gaining valuable field experience even before graduating.

Contact Naragebup on 9591 3077.

Revegetation bus tour for volunteers

by Shirley Fisher

The Leschenault Community Nursery is now in recess as all the plants have been collected for this year's plantings.

On the 17 October the management is hiring a bus to take our loyal volunteers to some of the revegetation sites which have used nursery plants – a great way to see the fruits of their voluntary labours. This will be followed by a picnic. The nursery will be back in business on 1 November.

Contact Shirley on 9791 5915.



Group Profile: Mt Henry Peninsula Conservation Group

Mt Henry Peninsula is a unique area on the lower Canning River that includes Banksia woodland, limestone slopes and shoreline vegetation. Owned by the Christian Brothers and part of Aquinas College, this 10 hectares is managed as a reserve for heritage conservation, education and passive recreation values. Its significance is highlighted by being on the Australian Heritage Commission's Register of Heritage Places, part of the System 6, a Bush Forever Site and registered with the Land for Wildlife program.

Make-up with strong links to Aquinas

In 1998 the Mt Henry Peninsula Conservation Group (MHPCG) was convened, meeting each month to address the recommendations of a Management Plan, commissioned by the City of South Perth. Local community members as well as current and past students, staff and parents of Aquinas College form the Conservation Group and many group activities are linked into the college's Community Service Program. This Program presents an opportunity to learn aspects of bush regeneration, and through involvement, enable students to gain a better understanding of the value of bushland and how we can assist in its conservation. "Many students choose to participate in the Environmental Service component, several of them gaining honours and colours for their consistent service beyond the College's requirements," explained Jan King, the Group's president.

Major projects

Many major projects have been achieved with the assistance of grants, partnerships, Aquinas College and other volunteers. The first was the preparation of information boards for the shoreline and bushland funded by the National Estate Grants Programme with College students, staff and parents contributing to the design and illustrations.

Others required the stabilisation and revegetation of three badly eroded limestone slopes with funding from the Minister for the Environment's Community Conservation Grants. The first was under the guidance of Ecosystem Management Services consultant, Nicole Siemon whilst a Year 11 senior science class who incorporated rehabilitation into their environmental studies managed the second. This involved planning, design, weed removal, terracing with heavy jarrah quarter rounds, jute matting and planting.



Before (October 1995) record of successful weed removal.

"It was far from completion at the end of second term. Then two of the students led a group of friends and worked through the school holidays and it was all planted by the end of July!" explained Jan in admiration.

The third, near Mt Henry Bridge was assisted by an Alinta Gas/Ecoplan /ATCV Bushland Care Day and included the 2000 launch at Aquinas College. "With a big crowd of participants an amazing amount of work was achieved. Fences mended and a track established with log terracing and jute matting laid among the limestone rocks," Jan enthusiastically recalled. "The junior school also participated in the planting of this slope".

MHPCG have also had some great assistance from the developers of the old Mt Henry Hospital site and officers from the Kensington Fire Station.

Ospreys get new platform

Although a bush fire burnt about two hectares of the central bushland in December 1997 it provided an unusual opportunity to replace a dead Tuart nesting site for an osprey pair. Their tree had fallen some time earlier and the MHPCG had been consulting with Western Power and Land for Wildlife to install a replacement nesting site. Western Power provided the power pole and installed the final structure, whilst the City of South Perth park engineers made and attached the platform. A junior school class studied ospreys and watched the installation proceedings. "We all live in hope that the ospreys will nest on it," explained Jan.

Managing weeds and ferals

The MHPCG has also done some interesting weed and feral management work with contract spraying programs and rabbit baiting. These have included a Swan Catchment



What a difference! After (October 1999) record of successful weed removal. The program included initial cutting Watsonia plants back and treating stumps with glyphosate (1996), wiping remaining leaves with glyphosate (1997) and removing bulbs (1998). Photos: Jan King



May 2002: Aquinas College students Conrad, Brendan, David and Olaf gathering tree guards and recording the survival of plants from the 2001 rehabilitation program.

Urban Landcare Program grant and the City of South Perth bush maintenance officers. Some of the heartening results have been the re-establishment of *Allocasuarina humilis*, *Macarthuria australis* and *Acacia lasiocarpa* (all previously much nibbled by rabbits) and native grasses.

Looking to the future

During the last two years the group have concentrated on weeding, maintenance and monitoring the effects of the previous projects. "The new Management Plan will offer future directions and one day it is hoped that a guided walk trail will promote the values of the Peninsula and make it more user friendly as an educational resource," concluded Jan.

Contact Jan King on 9337 6296.

Resources

Mostly free publications!!

Both *Land and Water Australia* and *Environment Australia* have many publications that are available free of charge, either as hard copies or downloaded files from the internet. Titles include:

- Motivating People – using management agreements to conserve remnant vegetation.
- Are there seeds in your wetland? Assessing wetland vegetation.
- Conservation Hindered: the impact of Local Government Rates and State Land Taxes on the Conservation of native vegetation
- The Value of Native Vegetation: Urban and Rural Perspectives.
- Landscape design principles for native vegetation management – addressing multiple scales.

Land and Water Australian (www.lwa.gov.au) and Environment Australia (www.ea.gov.au).

Western Weeds on-line

Many sections of the out-of-print publication **Western Weeds** by Hussey, Keighery, Cousens, Dodd and Lloyd are now available on the Plant Protection Society website with a search engine feature (http://members.iinet.net.au/~weeds/western_weeds.htm#contents).

Recent Publications

Tuart (*Eucalyptus gomphocephala*) and Tuart Communities: With 17 contributing authors and edited by Bronwen Keighery and Vanda Longman, this book began as the proceedings of a workshop held in March 1998. It now includes related works in progress, more thorough response to some topics as well as integration of some written papers.

Available (\$22) from the Perth Branch of the Wildflower Society and/or the Wildflower Society office 9383 7979.

Seed Notes for Western Australia: Developed and written by Anne Cochrane, Department of Conservation and Land Management (DCLM) Threatened Flora Seed Centre in Kensington to provide information on seed identification, collection, biology and germination for a wide range of native plants. Available (\$10) from the Perth Branch of the Wildflower Society, the Wildflower Society office 9383 7979, and/or from DCLM, 17 Dick Perry Ave, Technology Park, Kensington, 9334 0481.

Recovery of threatened ecological communities (TEC): Information notes on TECs have been developed and produced by the WA Threatened Species and Ecological Communities Unit at DCLM with financial assistance from the Natural Heritage Trust. The first three provide details on the Critically Endangered Thrombolites, Woodland of the Swan Coastal Plain (Eastern side) and Plant Communities on Ironstone & Muchea Limestone (near Perth) including management required to ensure protection from current and future threats. Available from DCLM – see above details under Seed Notes.

A Triple Bottom Line (TBL) toolkit has been developed by the City of Melbourne (CoM) and The International Council for Local Environmental Initiatives (ICLEI). It provides a guide to assess the environmental, economic and social impacts for reports going to council and capital work submissions. It can also be adapted to providing some practical ways to encourage council's to consider the environment in decision making. It is available at <http://www.iclei.org/anz/tbl/tbl.htm>.

Bushland Weeds Manual

Keep a look out for the upcoming publication of the Environmental Weeds Action Network, **Bushland Weeds – A Practical Guide to their Management** by **Kate Brown and Kris Brooks**.

This important publication is the culmination of the work undertaken as part of the NHT, Bushcare Support, funded project which Kate and Kris have worked on for a number of years. The manual will be a practical guide to issues involved in weed management in bushland areas. As well as chapters on particular weed types such as grassy weeds, bulbs, annuals and perennials there are also case studies from the bushland areas the project has worked at including Shenton Bushland, Talbot Road, Blue Gum Lake and Brixton Street. The manual will be launched before the end of this year.

Details will be on the EWAN web site <http://members.iinet.net.au/~ewan/>.

Website & Database Watch

The Weeds Australia search engine has been developed to assist in finding web-based weed related information that is present on government and major community organisation web sites (<http://search.weeds.org.au/>).

DCLM has created a website to provide information on procedures to apply, cancel, relocate and transfer an apiary site permit. Beekeeping on Crown land in WA also provides links to other related websites and information (http://www.naturebase.net/forest_facts/apiary_splash.html).

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