



MOUNT LOFTY RANGES GRASSY WOODLAND NETWORK



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NEWSLETTER 8

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- planning the restoration of the site based on what we find out from the first two steps (including staging restoration over a number of years)

The date for this workshop is Tuesday 18th September.

Workshop Reviews

Two workshops on weed control techniques were held in May, one at Sturt Gorge RP and the other at Cromer CP/Mt Pleasant Natural Resource Centre. Thanks to Faye McGoldrick at MPNRC and DEH's Steve Taylor for organisation, to Tom Bradley for presenting and to all participants for excellent involvement on the day as well as valuable feedback. There are fact sheets from the workshops on dealing with olives (the drill and fill technique, hand pulling tiny ones & cutting below the lignotuber of small ones), the cut and swab technique, tongs of death (good for strappy plants) and Peter Tucker's TFL Monadenia treatment. If you would like these either emailed or posted, please let Penny know.

Upcoming Workshops

Three workshops are planned for the spring. Two are plant identification workshops on a BFL or a Friends of Parks site, yet to be chosen. Several members have highlighted that they would like to have the opportunity to learn more about the plants on their own sites. So this is your opportunity to nominate your site and show other Networkers what great work you are doing.

If I don't get any takers I will choose sites, probably in Conservation Parks that have a good range of native plants. I need one site to the north and one to the south of Adelaide (including the Fleurieu Peninsula where I have never run a workshop). The dates for these two workshops are Wednesday 3rd October in the north and Tuesday 16th October in the south.

The third workshop will be the first in a series on habitat restoration with a practical bent. I am working with landowners near Port Elliott who have a property they wish to revegetate/restore. This first workshop in the series will be a planning exercise involving:

- assessment of the site for landforms, soils, remnant vegetation
- looking for remnant vegetation in the vicinity and listing native plants as well as structure of the vegetation



Tonging of bridal creeper, Sturt Gorge RP (Photo: Tina Bentz)

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CONNECT 07: Conservation in a Changing Climate.

Recently the Conservation Council of SA (CCSA) ran a conference - CONNECT 07: Conservation in a Changing Climate. A common thread to emerge from many of the sessions was the need for the entire community to embrace widespread behavioural changes as an integral part of the transition to a low-carbon lifestyle and society.

If you weren't able to attend, the Conference proceedings will be posted online at www.connect07.org.au in the near future. CCSA also has a regular emailed update called e-briefs. If you want to be added to this network send an email to: briefs@ccsa.asn.au

DEH Volunteer Newsletter Online

DEH now has an online volunteers' newsletter. Check it out at

http://www.environment.sa.gov.au/dehaa/volunteer_news.html.

New Threat Abatement Plan for *Phytophthora cinnamomi*

A revised and draft National Threat Abatement Plan for *Phytophthora cinnamomi* has been released by the Australian Government for public consultation until Monday 13th August and can be viewed at: <http://www.environment.gov.au:80/biodiversity/threatened/publications/pubs/draft-tap-phytophthora>.

Not connected to the worldwide web?

If you do not have access to the web, and I know there are some out there who don't, and you would like any information that is not available to you, please contact Penny and she will access it and post to you or find an alternative non-web based source.

Round 10 Envirofund NOW OPEN

The Australian Government Round 10 Envirofund is a special coastal and marine round. Closing date is **Friday 20 July 2007**. Further information including guidelines and application form can be accessed at: <http://www.nht.gov.au:80/envirofund/index.html> or phone: 1800 303 863 (toll-free) or write to: Australian Government Envirofund, Natural Heritage Trust, GPO Box 787, Canberra ACT 2601.

A Regional Recovery Plan for Plants and Animals

The Department for Environment and Heritage (DEH) is preparing an integrated recovery plan for threatened flora and fauna species and ecological communities of the Adelaide and Mount Lofty Ranges (AMLR) region.

DEH is delivering this project on behalf of the federal government through the AMLR NRM Board. There are a number of species covered by the plan with distributions that cross administrative boundaries, therefore information within the plan may also have relevance to adjoining regions. The project will also involve the development of an information tool to facilitate access to information specific to threatened species in the AMLR region. To learn more, and to join the e-mail list for project updates, contact Julia Bignall on (08) 8336 0906, e-mail bignall.julia@saugov.sa.gov.au, or go to the website: www.environment.sa.gov.au/biodiversity/regional_recovery_pilot.html. The website gives a good summary of the aims of the project and the form of the final product as well as having some great photos of threatened flora and fauna.



One of the declining Mt Lofty Ranges birds – a Diamond Firetail (Photo: Lydia Paton)

Greening Australia's Monthly Bulletin

Greening Australia produces an emailed monthly Bulletin featuring upcoming conferences and events, new book and abstracts of research articles on revegetation and restoration. This eBulletin is distributed 12 times per year, at the end of each month.

Subscribe/unsubscribe to this eBulletin: Email exchange@greeningaustralia.org.au with 'subscribe' or 'unsubscribe' in the subject line.

For example in the latest edition are journal abstracts on

1. Special Edition of Restoration Ecology - Present State and Future Perspectives of Restoration Ecology.
2. Provenance variation of ecologically important traits of forest trees: implications for restoration
3. Effect of fragmentation, habitat loss and within-patch habitat characteristics on ant assemblages in semi-arid woodlands of eastern Australia
4. Susceptibility of Common and Rare Plant Species to the Genetic Consequences of Habitat Fragmentation

5. Seeing the wood and the trees—predicting the future for fragmented plant populations in Australian landscapes
6. Managing plant populations in fragmented landscapes: restoration or gardening?

As an example the abstract for No. 5 is given below as it is particularly relevant for practitioners dealing with restoration of native vegetation in fragmented landscapes (which is all of us in the temperate areas of South Australia). This builds on paper No. 4, which is much more technical genetic study of plant populations in fragmented habitats. The important finding was “that common species were as, or more, susceptible to the population genetic consequences of habitat fragmentation than rare species, even when historically or naturally rare species were excluded from the analysis. These results are dramatic in that many more plant species than previously assumed may be vulnerable to genetic erosion and loss of genetic diversity as a result of ongoing fragmentation processes.” (OLIVIER HONNAY, HANS JACQUEMYN (2007) *Conservation Biology*. Volume 21 Issue 3 Page 823 - June 2007).

Linda Broadhurst and Andrew Young
Australian Journal of Botany. Volume 55 Number 3 2007

Abstract

Australian landscapes face significant environmental challenges in the coming decade. The fragmentation of vegetation following broadscale land-clearing has rapidly altered critical genetic and demographic processes within and among the remnants that still reside in these landscapes. These perturbations threaten the long-term persistence of many species. Although considerable research has been directed towards the management of rare species, little is understood about how common and widespread species respond to these new challenges. In this paper we review the current state of knowledge regarding species biology for some key Australian taxonomic groups to develop broad predictions about the major threats to species persistence, particularly for some of the most common and widespread floral components of fragmented Australian landscapes. The main focus is on associations between reproductive strategy, vulnerability to demographic and genetic threats, and implications for fecundity.

Book Review by Tom Bradley

Valleys of Stone
 The Archaeology and History of Adelaide’s Hills Face
 Edited by Pam Smith, F. Donald Pate and Robert Martin
 Kopi Books 2006
 387pp. RRP \$49.50

This book highlights the importance of colonial archaeological research in our State. Most of us associate archaeology with cultures much older than ours and it is refreshing to see that the Flinders University Archaeology Department has attempted to preserve details of our not so distant past before it is lost forever. The book details the history and archaeology of the western facing slopes of the Mt Lofty Ranges from Tea Tree Gully to Willunga in twenty two Chapters dealing with such subjects as, water, irrigation, roads, railways, quarries, gravestones, parks, buildings and nurseries.

The importance of water in colonial times becomes apparent in this book as people struggled to maintain water supplies over our hot summers. Dams and irrigation channels constructed upstream denied downstream landowners their share of this precious commodity (ironically the same is happening today on a much larger scale). Most houses had to be built close to water as it had to be fetched for domestic use unless the owners were able to dig a well. A small Waterworks was undertaken in the Brownhill Creek catchment in 1879 and operated until 1930 to supply water for Mitcham and this book documents what remains of that enterprise.

From early settlement quarrying became important for the construction of buildings. Quarries were established to supply good building stone from the Hills Face Zone at Tea Tree Gully, Magill, Stonyfell and Sleeps Hill with slate from the Willunga area. Later, crushed rock was mined for road and rail metal and the chapters on quarrying and mining detail the appalling safety record of these operations as well as recording the buildings and structures associated with these sites. The chapter on the Delabole slate quarry at Willunga is of interest because the Cornish miners were particularly innovative with their use of slate to the point of constructing water tanks from large pieces of slate. Recently I noticed fence posts made of slate (with holes drilled for the wire) on Range Road West at the top of Willunga Hill (see below). No problem with white ants or fire with those.



(Photo: Tom Bradley)

There are chapters on the development of the Great Eastern Road (SE Freeway) and the construction of the Hills Railway line. The route of the freeway has changed dramatically since it probably first followed an ancient Kaurna trail. Remnant parts of this road still remain and can still be recognized today, while others have been buried under subsequent construction. There is a detailed account of the construction of the railway from Mitcham to Mt Lofty with reference to the construction of the tunnels, the viaduct at Eden Hills and a landslide that killed six workers near Pinera station at Belair in 1928.

Parks form an important part of the Hills Face so the archaeology of Belair NP, Cleland CP, Waterfall Gully, Brownhill Creek RP, and Shepherds Hill RP are dealt with at some length. These chapters shed light on why these landscapes have changed so dramatically since settlement. Although extensive timber-cutting was undertaken by Tiersmen on the slopes below Mt Lofty, the vegetation was not completely cleared and few exotics were introduced so the native vegetation has remained intact. Much of National Park and Brownhill Creek were cleared for farming and later planted with exotic plants so have become havens for weed species. Luckily the NE corner of National Park remained untouched.

As interesting as this book is, it has been poorly edited. Two glaring examples are: page 119 "Happy Valley Reservoir on the Onkaparinga River" which is actually on the Field River. Page 125, in reference to farmlot trees growing at Willunga, "blue gum (*E. leucoxydon*)" should be Tasmanian blue gum *E. globulus*. Some of the illustrations and maps seem to have come from colour originals and have been printed in black and white making details impossible to see. Other diagrams and photographs are small making details and print difficult to discern. For the general reader, some of the detailed descriptions of archaeological sites could have been avoided and replaced with a simple diagram. Much is made in the book about the companion GIS database but it does not seem to be available on the Web.

For anyone interested in the Hills Face Zone this book will help them interpret the colonial landscape, especially those of us doing Bush-care work in some of the sites mentioned in the text. One of the problems that prevented some of the archaeological work being completed by the authors was the masses of weeds that they were confronted with. There are probably many more sites out there waiting to be discovered by intrepid bush-carers clearing away the tangled masses of weeds to find some more of the archaeological treasure hidden underneath.

A New Weed Threat to Grassy Woodlands

My thanks to Enid Robertson for her article in the latest Weed Management Society of SA Newsletter alerting us to another soursob species that is spreading through grassy woodlands in the Panorama, Belair, Blackwood and Eden Hills area.

Oxalis brasiliensis (no published common name) has large pinkish purple flowers in groups of one to three in late spring/early summer and leaves just like the soursob *O. pes-caprae*. According to Enid, *O. brasiliensis* rarely flowers and therefore it is probably hard to find or to distinguish from other members of the soursob clan. It can be successfully treated with Glyphosate but care needs to be taken with application to avoid off-target damage. Spraying is an option in degraded areas, but in good native vegetation dabbing is a better but slower course of action. Like other soursobs this species has bulbs below ground and it dies off in summer.

More information is available by googling New South Wales Flora Online 2007 (<http://plantnet.rbgsyd.nsw.gov.au/>). This website informs us that this species is widespread in eastern NSW, mainly occurring along roadsides, creeks and rivers and is a declared noxious weed in that state.

Winter/Spring Reminders

With the cooler wetter weather, remember about ***Phytophthora cinnamomi* hygiene**. A very cheap and effective Pc hygiene kit is easy to put together and consists of a spray bottle of methylated spirits, a stout scrubbing brush and an implement to clean tread of boots (eg a chisel or screwdriver). Keep it in your car and treat boots before and after visiting a site.

The other reminder at this time of year if you have sites with bridal creeper is to avail yourself of the **bridal creeper rust fungus**. If you are dealing with multiple sites then spreading it from one site to another is easy and needs just a little equipment. Rust workshops are being organised by the Asparagus Weeds Working Group and the AMLR NRM Board:

- Fri 20 July, Inman Valley, 1-2.30pm
- Wed 25 July, Belair NP, 10-11.30am
- Sat 4 August, Lyndoch, 9.30-11am

Bookings are essential so contact Emma Stephens, the Asparagus Weeds Project Officer, on 8374 6019 or 0438 885 165, or email emma.stephens@adelaide.nrm.sa.gov.au.