

Scientific Officer's
Report:
KI Koalas get more
funds

Tintinara Parklands
Update

Restoring Upland
Swamps

Monarto Crown
Lands conservation

NCSSA major concerns include

- Native vegetation, threatened species and habitats
- Protecting all forms of life (biodiversity) on land and in the oceans
- Park dedication, management and legislation
- Education about biodiversity to all sections of the community
- Cooperation with other conservation groups

Inside this issue:

Get a Grip	4
Mount Lofty Ranges Grassy Woodland Network	5
Scientific Officers Report:: KI Koalas get more funds	6
Tintinara Parklands Update	7
Managing threats & restoring plant diversity in upland swamps of the Mount Lofty Ranges	8
Walks With Nature	11
Threatened Species on show in Burra	12
Bushland Condition Monitoring Manual	13
Proposal to conserve Crown Land at Monarto	14

Around NCSSA

Matt's moving to Armidale

Alas, Matt Turner, our Scientific Officer, has recently advised that he is leaving the NCSSA and South Australia in July to pursue GIS (geographic information system) studies in Armidale, NSW. Matt has been with us since April 2002 and has been a great asset to our organization and the conservation movement in South Australia

His contributions and input into matters such as the Kangaroo Island Koala overpopulation issue and drafting of new biodiversity legislation has been of great worth and his knowledge and skills have been particularly appreciated by the general public to whom he has provided much needed information and support.



Matt Turner

We hope to see Matt back in South Australia sometime soon and wish him well with his studies.

We are recruiting for the soon to be vacant Scientific Officer position—see advertisement page 15.

Threatened Plant Action Group

TPAG has been busy restoring threatened orchid habitat and Manna Gum woodland at Belair National Park. This work is an



TPAG working bee in the Mount Lofty Ranges

ongoing partnership with the Native Orchid Society, Friends of Belair and Lofty Block Orchid Project. Threatened Plant recovery work has also been implemented at Pine Point and in the Mid North.

NCSSA people

Management Committee

President Helen Vonow
Vice-President Fraser Vickery
Secretary Phil McNamara
Assistant Secretary Nicole Lewis
Treasurer Richard Winkler

General committee

Misch Benito, Sara Boulton, Allan McIlwee, Peter Tucker, Katie Fels, David Moyle (co-opted)

Staff

Scientific Officer Matt Turner
Administrative Manager Elizabeth Lonie
Biodiversity Extension Manager Tim Milne
Temperate Woodland Campaigner Penny Paton
Stop Bushland Weeds Project Officer Meg Robertson
Eastern Flanks Grassy Ecosystems Officer Jo Spencer
Threatened Plant Action Group Coordinator Tim Jury
Biodiversity Extension Officer Sue Graham
Bushland Condition Monitoring Manual Project Officer Sonia Croft

Bushland Condition Monitoring Manual for the Mount Lofty Ranges

The *Bushland Condition Monitoring Manual* for the Southern Mount Lofty Ranges is here. After much long hard work Tim, Sonia and Janet have completed this valuable tool which will be used by landholders in the Mount Lofty Ranges to assess and monitor the current and hopefully, increasing biodiversity value of their properties. See page 13 for more information about the manual and how to purchase a copy.

A Network for grassy ecosystems

See page 5 for a report on Penny's latest activities, a recent public walk in Ferguson Conservation Park and the great new Grassy Woodlands Network newsletter.

Eastern Flanks Grassy Ecosystems Officer

Jo Spencer has been continuing with her unflagging efforts to inform the community and support grassy ecosystems in the Mount Lofty Ranges. Amongst many other activities, Jo has been working on species information sheets, conducted site inspections and completed site reports for 3 sites and produced a Protected Area proposal for Rocky Gully which is being circulated as a draft providing native grass information to horticulture students and landholders.

Biodiversity Extension Workshops programme

Sue is continuing her coordination of biodiversity information workshops in the Murray Darling and Northern Yorke Regions. See article page 12 for a report on the recent Threatened Species Day at Burra.

DONATIONS TOWARDS 2005 CONSERVATION BIOLOGY GRANT

At our January planning day the Management Committee decided that donations made this financial year to our Society would go to the NCSSA Conservation Biology Grant fund. Initially \$5000 was allocated to set up this grant, and to date \$6480 has been allotted to ten recipients

The grant aims to assist honours and post-graduate level student research into aspects of conservation biology. Funds are available for research aimed at: improving understanding of the conservation status of species or ecological communities; providing recommendations for improvement of some aspect of biodiversity conservation; understanding the ecology of species or communities; and understanding threats to biodiversity and management of those threats.

This year three students received grants to the total of \$2400:

Deb Frazer from University of South Australia, *The role of grass trees Xanthorrhoea semiplana as refuges for native vertebrate wildlife in selected parks in the Mount Lofty Ranges, South Australia*,

Elisa Sparrow of the University of Adelaide *The effect of population fragmentation and isolation on the reproductive biology, genetic status and population viability of wombats Vombatus ursinus and Lasiorhinus latifrons in South Australia*, and

Karleagh Trengrove of the University of Adelaide, *The Effect of Population Density on the Burrow Occupancy and Reproductive Condition of the Spinifex Hopping Mouse Notomys alexis*.

If you would like to support this initiative (and foil the tax mob) then send your donation to our office. If you would like to make a donation but prefer it to be allocated for another purpose please write to us or talk to our Administrative Manager, Elizabeth Lonie on 8223 6301.

If you would like to pay by credit card (and renew your membership at the same time) you can download a form on our website <http://www.ncssa.asn.au/membership.htm> or drop into our office at 120 Wakefield Street, Adelaide.

get a grip

HANDS ON ACTIVITIES FOR MEMBERS

AUTUMN HIGHLIGHTS: WOODLANDS NETWORK WALK

A mid-afternoon Sunday start and great weather encouraged a good turnout of our members and others with a variety of different conservation backgrounds, as Penny Paton (NCSSA Temperate Woodlands Campaigner) led a walk through Ferguson Conservation Park, looking at plants typically found in grassy woodland communities. Few weeds were present due to the unusually dry seasonal conditions, enabling a number of native plants (in particular those often mistaken for weeds!) to be correctly identified. This was a session where people could enjoy the outdoors, gain and exchange knowledge and talk informally with a few of the experts 'in the field'. See following page for further information on the Grassy Woodlands Network.

Coming Up:

'FEATHERS & SCALES' DAY Saturday 24 September 2005

at Murray Bridge. Come and try a spot of birdwatching with a local expert, or help catch and identify local native fish species using a member of Native Fish Australia (SA Branch) as bait!. Look out for further details in the next issue of *Xanthopus*.

FIELD NATURALISTS SOCIETY of SOUTH AUSTRALIA FIELD TRIPS

(brought to you by the Mammal Club and the South Australian Herpetology Group)

The Mammal Club usually meets on the third Monday of each month at 7.30 pm, upstairs in the NCSSA rooms at the Conservation Council of SA building, 120 Wakefield Street, Adelaide.

Remaining meeting dates for 2005: 20 June, 18 July, 15 August, 19 September, 17 October, 21 November and Christmas Social Gathering 19 December.

Generally, no experience is required to participate in their field trips and families are welcome (minors must be accompanied by a responsible adult). You do not need to be a member to participate on initial field trips, but they hope that you might consider joining the FNSSA and Mammal Club or the SAHG. Students at tertiary institutions studying biology, natural resource management, Parks and Wildlife Management or any ecology-based courses, which include aspects of field survey, are particularly welcome

A study of Coastal Reptiles at Hallett Cove Conservation Park – various weekends throughout 2005

South Australian Herpetology Group are aiming to opportunistically identify reptiles still active in the Conservation Park without using trap-lines. This may involve morning, afternoon and overnight visits depending on weather conditions, which determines local reptile activity. Interested conservationists are welcome to participate.

To help compile a list of interested people, please contact Peter Matejcic: 82633125 (h), or send your details in a text message to 0400 292 311 or email: pmatejcic@adelaide.on.net.

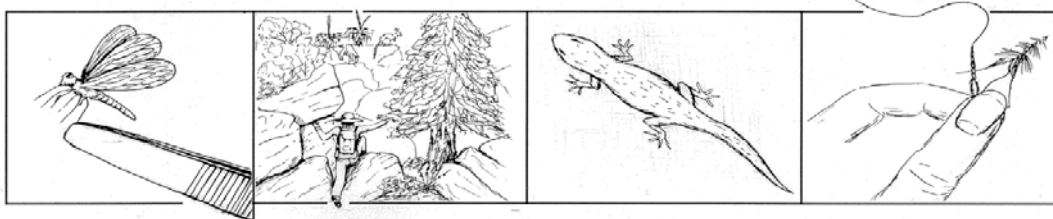
PLEASE REMEMBER: Hallett Cove Conservation Park is particularly fragile with high public use and all participants have a responsibility to exercise care in not damaging vegetation by using defined paths wherever possible.

Mount Boothby Conservation Park survey Saturday 1st to Monday 3rd October (Labour Day long weekend)

(upper South East, west of Dukes Highway between Coonalpyn and Tintinara). Interested persons please contact:

- Peter Matejcic (chairperson) on: (08) 82633125 (h) or email pmatejcic@adelaide.on.net
- Rodney Hutchinson on: (08) 8264 0289 (h) or email rodlyd@chariot.net.au
- Graham Medlin on: (08) 8276 4499 (h) or email gmedlin@bigpond.com

Specific details, maps, etc. will be emailed or posted to you about two weeks before the event.



The Mt Lofty Ranges Grassy Woodland Network

The Mount Lofty Ranges (MLR) Grassy Woodland Network is well and truly up and running. We have had our first event – a walk and talk in Ferguson Conservation Park on May Day – and the first newsletter is out.

The walk in Ferguson CP was attended by about 25 people, ranging from members of NCSSA and *Friends of Parks* to *Bush For Life* volunteers and staff. We had a glorious afternoon for our informal ramble through a beautiful SA blue gum / drooping sheoak / southern cypress pine woodland. There were lots of questions about native plant and weed identification and discussions concerning weed control methods, habitat use by birds and what people want to get out of the Network.

Newsletter No. 1 contains articles on why we need the Network, why grassy woodlands are important, changes in avifauna of Sturt Gorge Recreation Park over 30 years, weeds (including Weed / Native Lookalikes and Weed of the Trimester) and the Bushland Condition Monitoring Manual, which has now been printed.



Penny and group on the Grassy Woodland Network walk in Ferguson C.P.
Photo: Giulio Carbone

A feature article by Ann Prescott, one of the Bush Management Advisers in the MLR, gives Ann's philosophy on weeding *Monadenia* (the South African weed orchid) [now *Disa* Eds.]. She suggests that people work out how much time they have to devote to weeding *Monadenia* and pull flowering heads out vertically from the bulbs for 90% of the time, then dig for the remaining 10%. The reasoning is that if you only have enough time to dig say 50% of the tubers, you are going backwards as seed production from the other 50% will outweigh the good work that you have done. Pulling the heads may also reduce the vigour of the bulb over time so you are making headway by adopting the **"absolutely no more seeds approach"**.

On a weeding visit to Happy Valley reservoir on May 10th I noticed *Monadenia* with little leaves just appearing above the ground around old stalks that we had missed last year, so I will be adopting Ann's suggestion this year.

If you would like to join the Network or talk to Penny, please ring her on 8344 8891 or email on paton@chariot.net.au.



Penny Paton
NCSSA Temperate Woodlands Campaigner

MOUNT LOFTY RANGES
GRASSY WOODLAND NETWORK

Scientific Officer's Report:

KI Koalas get more funds

Many will have heard that the State Government has announced a significant funding increase for the koala management program on Kangaroo Island.

Regular readers of *Xanthopus* will also know that the Society has worked extensively on the issue of koalas on Kangaroo Island over the last 8-10 years (for a background article see *Xanthopus* Vol. 22 Part 2, Winter 2004).

The Premier, Hon. Mike Rann and Environment & Conservation Minister, Hon. John Hill announced the \$4 million dollar program as a part of the 2005 State Budget handed down in May. The Premier said there were warnings that if koala numbers continued to climb, Kangaroo Island's natural heritage could be irreversibly damaged within five years. The Premier went on to say that "...the current population of 27,000 koalas is too great. They are doubling in population every five years and we need to bring that under control as a matter of urgency." It is expected that the \$4 million program will sterilise 8000 koalas over four years.

While it remains somewhat unclear exactly how the Department for Environment and Heritage (DEH) will spend the money for controlling the Island's koala population, what is clear is that the Government continues to rule out the option of a humane cull. In his media release the Premier said: "Killing koalas is not the way to go - it is repugnant and unacceptable way out of this problem."

DEH expects that the investment will be channelled to a range of areas ~ not just the sterilisation and translocation program. The Department hope to gain a better picture into the exact numbers of koalas, the time it takes for degraded areas to recover following removal of koalas and the rate of population growth. It appears that at least some of the money will go into educating the public on the issue of koalas on Kangaroo Island and the Department's koala management program.

Even when one allows for the figures to be a bit rubbery, it is hard to see any real impacts on the overall population from this program. More than likely, the doubling time will be extended by a few

more years ~ (therefore lower population growth) but irrespective of this what is really needed is an immediate and drastic decrease in the KI koala population to allow habitats to recover.

Furthermore, \$4 million is a lot of money. To put it into perspective, over the past two years a little over \$400,000 has been allocated to **all** of the pest plant and animal programs on the Island. These are important programs that address the threats from a range of introduced animal species such as cats, deer, pigs; and weeds like bridal creeper and bridal veil (*Asparagus* spp). If this level of funding continues over the next couple of years we will see 500% more money going into controlling koalas than controlling all of the other introduced species on the Island.

Curiously, the Premier also said that koalas are now an accepted part of the environment. "Accepted by who?" is the obvious response to this - certainly not the manna gums that are being slowly destroyed by these hungry animals.

The Society hopes that at least some of the money will find its way to more long-term solutions, for example fencing of riparian manna gum habitats that are suffering the most from koala herbivory.

The Society is pleased that the State Government's budget recognises the threat from an abundance of koalas on Kangaroo Island. However, we continue to have some doubt over the government approach. A humane cull could be achieved at a fraction of the cost, and would free-up money to be spent on far more practical conservation projects.

Matthew Turner

Email: scientific@ncssa.asn.au

If you would like to see the Government engage in a genuine attempt to control the numbers of koalas on Kangaroo Island write to:

Premier Mike Rann PO Box 2343 Adelaide, 5001,
or

Minister for Environment and Conservation, Hon John Hill PO Box 1047 Adelaide SA 5001.

Tintinara Parklands update

The last edition of *Xanthopus* had an article on a proposal to sell some of the Tintinara Parklands in Tintinara township in the upper South East. The article prompted a response from the Director of Natural and Cultural Heritage, Mr Greg Leaman:

Dear Mr Turner

I refer to the recent Scientific Officer's Report in the Autumn 2005 edition of "Xanthopus" regarding the Tintinara Parklands.

You suggested that DEH had not followed due process in terms the requirements outlined in the 'Disposal of Crown Lands and Reserves' published on the Department's web site. This is not correct.

DEH has addressed each of the requirements outlined in the document as follows:

- Status of native title rights - investigation has shown that native title does not exist over this land;
- Site history - the former uses for quarrying road materials and for tennis courts do not create contamination concerns;
- Biodiversity assessment - two independent assessments have been carried out both concluding that there are minimal biodiversity values;
- Cultural heritage values - not applicable in this case;
- Future public purpose assessment - DEH will be guided by the views of the Coorong District Council on this;
- Likely public demand for the land - if the land does become available for sale it will be through an open disposal process.

I can also assure you that there have been no irregularities in the process and the request to maintain the status quo did not come too late. Minister Hill has made it quite clear that the status quo will remain while Council and the DAC continue to consider the matter.

I trust that this helps to clarify the matter.

Yours sincerely,

Greg Leaman
Director Natural and Cultural Heritage

[The NCS acknowledges that due process was followed with regards to identifying native title rights, biodiversity assessment etc. Our Society remains concerned that dedicated parklands could be considered for development despite opposition from the Council. Further, we believe that the vegetation assessment failed to consider the domino effect associated with the development. The development proposed that a stormwater facility on the development site would be moved to an area of native vegetation.]

STOP PRESS

The Development Assessment Commission has heard the matter and has refused development consent because the development was "...seriously at variance with the policies in the local development plan."

XANTHOPUS

The views presented in this newsletter are not necessarily those of the NCSSA

Copy deadline for the Spring edition is **29th July 2005**.

Contributions in a variety of formats will be considered, but electronic submissions are preferred.

Editorial Team for this issue: Helen Vonow, Elizabeth Lonie and Misch Benito

Please let us know if you would prefer to have your *Xanthopus* emailed in preference to a hard-copy
~ we are considering this as an environmentally friendly option.

Managing threats & restoring plant diversity

Tim Jury¹ and Tom Hands²

¹Threatened Plant Action Group, c/- Nature Conservation Society of South Australia tpag@ncssa.asn.au

²Friends of Scott Creek Conservation Park

Upland swamps in the south Mount Lofty Ranges of South Australia are unique ecosystems. Small and typically hidden away, these wetlands occur along steep mountain gullies in the highest rainfall region of the state. They contain restricted, naturally rare biota including high concentrations of threatened plant species. Much of the upland swamp habitat in the ranges has been destroyed or modified with remaining examples under significant threat from weed invasion, grazing and inadequate conservation management.

A restoration project was initiated in the ranges at Scott Creek, during 1996 by the Friends of Scott Creek Conservation Park (FOSCCP). Objectives were to reduce the impact of threats on these wetlands and to return them to their pre-European floristic composition and structure. This article outlines the threats to remaining swamps and summarises the conservation gains that have been made through this wetland restoration project.

Upland swamps in the southern Mount Lofty Ranges

Colloquially known as swamps, these ecosystems can be subdivided into wetland categories based on their biophysical attributes such as geomorphology, hydroperiod and structural floristics. Upland swamp is a more general term for wetlands that include more specific communities such as perched bogs, hillside soaks, and valley mires.

They typically occupy small areas along narrow spring-fed gullies or occasionally perched on hillsides, and tend to form a patchy network of wetlands linked by upland creeks and streams. Typical vegetation communities tend to be a mosaic of plant associations which include tea-tree and wattle shrublands, as well as areas of fern and sedgeland that intergrade with eucalypt forests and woodlands, particularly Messmate stringybark (*Eucalyptus obliqua*).

Conservation significance

These upland swamps support plant community and ecosystem types that are threatened in the region (Turner 2001), for South Australia (DEH 2001) and at a national level (Duffield *et al.* 2001). Plant guilds that are dependent on permanently running water or damp conditions, such as hydrophytes and rheophytes, are closely associated with these habitats. Upland swamps support a disproportionately high percentage of the region's rare or threatened plant taxa. Around 42 % of the plant species of conservation significance in the region are confined to these ecosystems (Lang &



Photo 1. The threatened Derwent speedwell (*Derwentia derwentiana* ssp. *anisodonta*) Photo: John Butler

in upland swamps of the Mount Lofty Ranges

Kraehenbuehl 1997). Many swamps contain rare angiosperm, pteridophyte and orchid species, including the threatened Derwent speedwell (*Derwentia derwentiana* ssp. *anisodonta*) and swamp raspwort (*Haloragis brownii*). Protection of these wetland ecosystems at a landscape level is required to conserve almost half of the region's threatened flora.

These communities also provide critical habitat for threatened fauna such as the southern brown bandicoot (*Isodon obesulus*) and Bassian thrush (*Zoothera lunulata*).

Threats to plant diversity

Upland swamps in the region are under immense threat from a wide range of degrading processes. Since European settlement many swamps have been cleared, drained, filled or developed for intensive horticulture. Impacts of vegetation clearance are often exacerbated by stock grazing and the intentional introduction of plant species. Most remaining swamps have been profoundly changed or modified.

These changes have resulted in widespread habitat degradation and invasion by environmental weeds like blackberry (*Rubus fruticosus* aggregate) and willow (*Salix* sp.), as well as broom and tree heath (*Erica arborea*) in some areas. These weeds displace indigenous flora by transforming plant community structure and local soil properties. In particular, extensive blackberry thickets throughout upland watercourses and wetlands in the ranges are the main threat to floristic diversity. These dense thickets eliminate most indigenous plant species and prevent their regeneration. This simplification of habitat structure dramatically reduces niche variability, floristic composition and plant species diversity. Weed invasion severely compromises the capacity of these wetlands to support the restricted plant species that are confined to them, incrementally resulting in biodiversity loss through a cascade of local extinctions.

Repairing degradation and assisting regeneration

Work by FOSCCP has focused on several wet gullies in the reserve, where the group have concentrated on selectively managing weeds through slashing and spot-spraying of blackberry during active growth periods; cut-and-swab treatments for established woody weeds (broom, tree lucerne and tree heath); and stem injections for larger exotic trees such as willows. Over the last eight years management targets have shifted from the initial objectives of reduction (removing dense blackberry thickets) to subsequent containment and follow-up of weed regrowth through careful spot spraying and cut-and-swab methods. Restoration is being implemented through a staged strategy, targeting more intact sections around gully headwaters before moving further down into more densely infested areas.

The impacts on plant community structure, biomass composition, and species diversity have been spectacular. Reducing weed abundance has stimulated vigorous regeneration of dominant structural species such as silky tea-tree (*Leptospermum lanigerum*), red-fruit cutting-sedge (*Gahnia sieberiana*), and soft water-fern (*Blechnum minus*). Many threatened plants have also been uncovered, including two small herbaceous species not previously recorded for the region, swamp mazus (*Mazus pumilo*) and *Pratia puberula*.

A central aim has been to recreate a habitat structure that promotes recruitment of indigenous plants by facilitating growth and expansion of remnant clumps of shrub, sedge and fern species through the control of competing weed growth. In some instances prolific regeneration of bracken (*Pteridium esculentum*) following weed removal has provided useful cover to compete with blackberry regrowth. Selective slashing has then been used to create germination and establishment space for other indigenous plant species.

The approach of this project has been to work with or assist natural regeneration in order for wetland areas to recover indigenous plant biomass and species diversity. Success can be attributed to the persistence of the group in undertaking the routine follow-up work needed to guide successional recovery.

Managing threats & restoring plant diversity in upland swamps of the Mount Lofty Ranges cont.

The future

A substantial increase in management resources needs to be directed to these ecosystems for threat abatement in the future. Opportunities to enhance project continuity and integration through regional biodiversity partnerships are currently being explored by the Friends group, who recently gained some recognition for their work by winning two Civic Trust awards for this project.



Photo 2. Blackberry invaded site prior to implementing restoration measures
Photo: John Butler

The degradation of upland watercourses and associated ecosystems is one of the most serious and neglected environmental problems facing this generation (Closs 1998). In the South Lofty Ranges alone just 1% of riparian vegetation remains in good health (SA Water 2000). Reservation in itself will not ensure long-term protection for upland swamp ecosystems, particularly in more fragmented landscapes.

If we are serious about the *in situ* conservation of plant diversity in these important wetlands we need to dramatically increase the current restoration and management effort. Unless this occurs conservation programs in the region will continue to fall short of their aim of preventing further species loss.

Acknowledgements

The authors acknowledge those who have contributed toward this project including:

John Butler, Robert Bates, Don Reid, Yvonne Steed and members of the FOSCCP. Three small grants obtained from DEH, *Urban Forests Biodiversity Program* and *Envirofund* for project support are acknowledged. The Department for Environment and Heritage is recognised for their cooperation with this project.

References

Closs, P. (1992) Stream Ecology and some related conservation issues. *Applied Ecology and Conservation II: Proceedings of the Applied Ecology & Conservation Seminar Series*. Latrobe University, Melbourne.

Duffield, R., Milne, T., Reeve, M., & Hill, B. (2001) Nomination for listing an ecological community as a threatened ecological community under section 181 of the *Environment Protection and Biodiversity Conservation Act 1999*. Conservation Council of South Australia Inc. and the Nature Conservation Society of South Australia Inc.

SA Water (2000) *The State of Health of the Mount Lofty Ranges Catchments from a water quality perspective*. Environment Protection Agency, Department of Environment and Heritage.

Turner, M.S. (2001) *Conserving Adelaide's Biodiversity: Resources*. Urban Forest Biodiversity Program, Adelaide.



Photo 3. Regeneration of the same site following weed management.
Photo: John Butler

Note: A version of this article was first published in the Summer 2004 edition of *Australasian Plant Conservation*.

WALKS with NATURE

Walks With Nature is a program of free public nature walks held in National Parks and other areas close to Adelaide. They are coordinated by the Nature Conservation Society of South Australia, and each year five walks are held monthly in winter and spring.

This year's *Walks With Nature* program will begin on June 19, culminating on October 16 with the annual *Great Australian Bushwalk*. Walks will be advertised in the *Sunday Mail* the weekend before each walk, and directions will be available through the NCSSA office and on our website www.ncssa.asn.au.

June 19 th	Sandy Creek
July 17 th	Waterfall Gully
August 21 st	Belair
September 18 th	Aldinga Scrub
October 16 th	Deep Creek

Can you help? We are always looking for:

- walk organisers - to plan a walk and prepare the leader's notes
- walk leaders - to turn up on the day and help the enthusiastic walkers to discover the natural wonders along the way

If you know a little about plants, birds, insects, tracks, scats or any other aspect of natural history that you'd like to share with a captive audience, then this exciting opportunity is for you!

If you would like to attend a walk, simply turn up whenever it suits between 10.30 am and noon on the day. The walks lead off every 10-15 minutes and usually take about 2 to 3 hours.

For more information on the walks, contact Katie Fels on 0414 293 603 or via email at katie.fels@earthtech.com.au, or the NCSSA office on 8223 6301.

Biodiversity Extension Program:

Threatened Species on show in Burra

On Sunday 8th May 2005 Burra played host to the Nature Conservation Society of SA Threatened Species Information Day. Attendees had the opportunity to meet one of the more charismatic of the threatened species of the Northern and Yorke Agricultural district, Kenneth the pygmy bluetongue. Kenneth was joined by speakers from the Department for Environment and Heritage (DEH) and our Society, talking about the plants and animals in the region that are going to need help if we want them to remain part of the world we live in. An afternoon field trip gave everyone a further opportunity to meet some of the species that were introduced during the morning talks.

The day opened with Julie Schofield, the DEH Regional Threatened Fauna Ecologist. Her focus over the coming years will be the pygmy bluetongue, Krefft's tiger snake, common brushtail possum, yellow-footed rock wallaby and the western whipbird. Julie is currently undertaking annual population monitoring of the pygmy bluetongue and surveys of brushtail possums. She will be planning a survey of the whipbirds later in the year in Innes National Park. She is always on the lookout for willing field helpers and would love to hear from people who have seen or have information relating to any of these species.



Pygmy Bluetongue in spider-hole
Photo: Tim Milne

Amber Clark, the Regional Threatened Flora Ecologist, gave an overview of the threatened plants in the region, including: 27 species listed as nationally threatened; a further 108 with a South Australian conservation rating, and another 137 at risk of extinction within the region. Some of the greatest threats to these species are factors such as the clearance, fragmentation and modification of native vegetation for agriculture; weed invasion; grazing by feral and native species; and altered fire regimes. She spoke more specifically about the projects she will be working on this year, including the spiny daisy, Spalding blown grass, the colourful superb groundsel, and the Mid-North native grasslands, a threatened ecological community.

The Lofty Block Threatened Orchid Project Officer, Joe Quarmby, talked about some significant threatened orchids in the region, in particular the Halbury greenhood, the white beauty spider orchid and the large club spider orchid, and efforts being undertaken for their protection. This includes rabbit proof fencing around the Halbury Parklands, last stronghold of the Halbury greenhood, and monitoring of grazing pressure in other regions. Apparently orchids are a very tasty morsel for cattle and sheep as well as kangaroos.

Tim Milne, Biodiversity Extension Manager for our Society, spoke about the life of the pygmy bluetongue, which he had studied for six years during the 1990s. Thought to be extinct, a specimen was rediscovered in the belly of a skittled brown snake in 1992. Subsequent searches by experienced herpetologists (those that study reptiles) could find no trace of them. Tim conducted some pit fall trapping, revealing the first live animals seen since the 1950's. After attaching a radio transmitter to one, he found the poor little guy trying unsuccessfully to back down his burrow. This explained the previous difficulty in finding them as pygmy bluetongues live in spider burrows, hunting from the entrance and making a quick retreat if anything disturbed them. Being slow movers and with very little external protection they are extremely vulnerable to predators when away from their burrows. Tim suggested this has contributed to their decline as when land is ploughed they would be quickly exposed with no avenue for retreat to a safe place.

The final sessions of the morning were Tim Jury, coordinator of the Threatened Plant Action Group (TPAG) and Annika Everaardt, the Threatened Species Community Liaison Officer for DEH. Tim gave a rundown on TPAG's work in the region, in particular at two sites near Spalding and Tarlee where recovery actions for the Spalding blown grass have been ongoing for more than ten years. Annika then gave an outline of the how and why of threatened species protection. She mentioned some of the ways in which everyone can get involved including: raising awareness; controlling weeds and feral animals; joining a local community group; considering

Threatened Species on show in Burra cont.

Heritage Agreements; restoring habitat; and taking care when visiting bushland areas. She also spoke about the upcoming launch of a new Mid-North community group that will assist with the on-ground work needed for species recovery.

The day highlighted the need for everyone to take a role in protecting our threatened species. That may involve just being more aware of the impacts of your daily life on the world around you, but if you would like to take a more active role please contact any of the aforementioned people (details can be obtained from Annika on 8842 6254, everaardt.annika@saugov.sa.gov.au or Sue Graham the NCSSA Biodiversity Extension Officer on 8223 6301, workshops@ncssa.asn.au).

Sue Graham
Biodiversity Extension Officer



Pygmy Bluetongue in hand Photo: Julie Schofield

Bushland Condition Monitoring Manual

The Mount Lofty Ranges Monitoring Manual is finally in print. It has been created by NCSSA to provide bushland owners and managers with a tool that can accurately measure change in the condition of their bushland.

A range of assessment methods have been brought together in the manual that volunteers, landholders, bushland owners, land managers and technical officers can readily use. There are three main parts to the manual:

Volume 1: Field Guide to Bushland Monitoring is designed to help the user to objectively score ten different indicators of bushland condition. With the aid of interpretive diagrams and text, you can monitor dynamic attributes of bushland such as plant species diversity, abundance of weeds, regeneration, tree health, and plant structural diversity.

Volume 2: Understanding your Bushland Condition Indicators contains in-depth information about each of these vegetation attributes and how it relates to condition. It also makes links to the type of management actions that are associated with various scores on each indicator. Links to appropriate regional resources are also included.

Packed with information about the flora and fauna of the Mount Lofty Ranges, Volume 3 will help the more advanced user to learn more detail about the specific type of vegetation they are monitoring.

The Bushland Condition Monitoring Manual for the Southern Mount Lofty Ranges is available through the NCSSA offices for \$66 (inc. GST).

Proposal to conserve threatened ecosystems on Crown Land at Monarto

Jo Spencer, the NCSSA Grassy Ecosystem Officer in the Eastern Hills region of the Mt Lofty Ranges, has been working with local community groups to achieve biodiversity conservation outcomes for areas of significant native vegetation on Crown Land in the Monarto region. As a result, our Society and the Monarto Landholders Environment Group has sent a report to Hon. John Hill, Minister for Environment and Conservation, supporting a proposal to create a protected area at Frahn Scrub.

This report leads from the growing interest over the past few years of local community groups, non-government organisations and individuals to achieve greater security of land tenure for significant native vegetation on Crown Land. The proposal uses data collected and recommendations made in the 2002 NCSSA spring survey report of grassy woodlands in the Eastern Hills. The survey report (Johnson, 2003) made a key recommendation that *areas of remnant vegetation on government controlled land be managed for conservation purposes*. Particularly, for the area known as Frahn Scrub, it is recommended that formal protection be explored:

Frahn Scrub is highly significant as a remnant of pre-European vegetation in the Eastern Hills. Any proposed actions having the potential to impact upon this vegetation should not be approved. Including Frahn Scrub within the State's Reserve system would enable a more adequate representation of the significant plant communities that this remnant supports. Appropriate management of Frahn Scrub would also enhance the conservation of a Nationally Threatened plant species. (Johnson, 2003, page 30).

The Survey report also highlights that:

Three bird species considered *Near Nationally Threatened* occur within Frahn Scrub. These are the Diamond firetail, Brown treecreeper and Crested bellbird. Placing all sub-populations on public land under secure conservation management is a specific recommendation made by Garnett and Crowley (2000) concerning these declining species. (Johnson, 2003, page 30).

A Conservation Park is proposed to protect 855 hectares of state and nationally threatened

ecosystems, primarily *Eucalyptus porosa* mallee box and *E. odorata* peppermint box. The area is unique in the landscape and supports areas of grassy box woodland vegetation in excellent condition, and is a hotspot for declining woodland birds. Nationally rated flora includes *Acacia menzeli* and *Olearia pannosa* ssp. *pannosa*.

The proposed area includes upper tributaries of Rocky Gully creek, the former Murray Bridge Forest reserve and minor examples of Monarto Woodland plantation areas. The adjoining Heritage Agreement at Frahn Farm (owned by the Aboriginal Lands Trust) contributes to the protected area. There is also potential for adjoining areas on private land, to be explored for a covenant protecting native vegetation in the long term. This proposal has the support of local Aboriginal people, members of the local community and concerned environment and bird groups. The voice of the Community in determining long term biodiversity outcomes is timely, given the history of compulsory acquisition of private land, and the scale and vicinity of Government department land ownership, as well as the rapid expansion and development of industry and intensive farming in the area.

The proposed Conservation Park also includes leased areas which have been used in the past for cropping and grazing. A long term approach to habitat restoration is now required for these areas.



Photo 1. Low open box woodland with open areas of *Acacia* shrubland and *Lomandra effusa* dominated grassy areas, Frahn Scrub, Section 5, Monarto. Photo: Jo Spencer

Proposal to conserve threatened ecosystems on Crown Land at Monarto cont.

Native grass re-colonisation is occurring naturally. To revegetate specific areas of this grassy woodland will require active on-ground work and the expertise of many. It is anticipated that such an approach will provide valuable experience and knowledge - vital for getting grassy woodland revegetation right.

Summary of the Frahn Scrub protected area proposal

It is considered that the subject land has biodiversity values that are a very high priority for conservation in a protected area. Biodiversity values that have been identified are:

- Low open grassy box woodlands are unique to this region and are poorly conserved.
- Mallee box woodlands are a priority for conservation (Neagle 1995).
- Peppermint box woodlands are nominated as *Critically Endangered* nationally and are a priority ecosystem in SA.
- Examples of *Acacia* shrubland are poorly known and under-conserved in the region.

- There are no examples formally conserved of sheoak / native pine with *Lomandra effusa* understorey.
- The area has natural features such as sheoak groves and habitat areas such as rocky outcrops and watercourses essential for the conservation of local biodiversity.
- The area provides native vegetation for primary and secondary tributaries of Rocky Gully creek.
- Rare and threatened flora and fauna present a significant habitat area for woodland birds in decline.
- Patches of significant roadside vegetation in good condition and with nationally rated plants and animals.
- Great potential for habitat restoration and promoting natural regeneration.

Anyone interested in a copy of the report can contact Jo Spencer at the Mt Lofty Ranges Catchment Centre, 8391 7512 or email jspencer@bigpond.net.au.

SCIENTIFIC OFFICER POSITION VACANCY

NCSSA is currently recruiting for a Scientific Officer. Position duties include conducting research into current nature conservation issues, preparation of submissions, lobbying of relevant agencies, media work, public liaison and project development.

Requirements;

- degree in biology, ecology, natural resource management or equivalent
- understanding of principles of ecology and nature conservation/biodiversity conservation
- understanding of relevant government agencies, programs and funding opportunities
- high level organisational and time management skills
- initiative and self-motivation

The position is being offered at 0.8 FTE (30 hours p/week) with a 12 month contract. Extension of the contract will be subject to availability of funding and satisfactory performance review.

A salary commensurate with skills and experience will be negotiated in the range \$38876 - \$49879 per annum, adjusted to hours worked.

Further information and job specifications can be obtained from our website www.ncssa.asn.au.

Applications, addressing the job and person specifications, should be forwarded either by email to ncssa@ncssa.asn.au or posted to Nature Conservation Society of SA, 120 Wakefield Street, Adelaide, SA 5000 by 5pm Thursday 2nd June, 2005.

GENERAL MEETINGS

are usually held on the first Thursday
of each month (not Jan. & Dec.) at the

Conservation Centre Meeting Rooms
120 Wakefield Street
Adelaide

7:00 pm (front door open at 6:45pm)

Upcoming meetings:

Thursday July 7th Lisa Farroway (DEH)
Kangaroo Management Plan for South Australia

Thursday August 4th Trish Mooney
The Glossy Black Cockatoo Recovery Program

Thursday September 1st
Annual General Meeting

Thursday October 7th Michaela Birrell
South Australian Wetlands Strategy