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Danthonia



Volume 8 Number 2

September 1999

NEWSLETTER OF THE AUSTRALIAN NETWORK FOR PLANT CONSERVATION INC.

Setting the Scene: A Native Vegetation Conservation Strategy for New South Wales

John Benson, Royal Botanic Gardens Sydney

A conservation strategy for the native vegetation of New South Wales is being developed under the *NSW Native Vegetation Conservation Act* (see Box on page 4). The first step is the preparation by the NSW Native Vegetation Advisory Council of seven background papers that summarise the literature on a range of issues. My role has been to prepare the first of these: *Setting the Scene: The Native Vegetation of NSW*. This describes the different types of vegetation in NSW on a bioregional basis, produces statistics on reservation and clearing rates, discusses the major threatening processes affecting vegetation including major weed species, and describes standards for vegetation survey and mapping.

The paper outlines the extent of land clearing in NSW over the last 20 years. In the 1980s it appears that about 100 000 hectares a year

of woody vegetation with a canopy cover of greater than 12% was being cleared annually. This reduced to 50 000 ha in the early 1990s and perhaps is about 30 000 ha now. If the ploughing of native grasslands were included these figures would increase substantially. Clearing rates are still too high to meet national and state biodiversity, greenhouse and land degradation mitigation objectives. About one third of the Murray-Darling Basin agricultural lands will be severely affected by salinisation by 2050 and this is at least partly due to over clearing of deep-rooted native vegetation.

The *NVC Act* allows for regional vegetation management plans (RVMPs) to be developed over areas greater or equal to a local government area. These are statutory planning instruments linked to and conforming to the *NSW Environmental Planning and Assessment Act 1979*. About 20 regional vegetation planning committees have been formed

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ANPC Inc. Mission Statement

"To promote and develop plant conservation in Australia."

Danthonia

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Contributing to Danthonia

Danthonia is a forum for information exchange for all those involved in plant conservation: please use it to share your work with others. Articles, information snippets, details of new publications and diary dates are all welcome. The deadline for the December 1999 issue is Friday 19th November.

Please send typed or handwritten articles, no more than 2 A4 pages, to Fiona Hall by fax, mail, email, or diskette. If sending by email, please send in the body of the text or as an attachment in Word 6 or Rich Text Format (rtf) to anpc@anbg.gov.au. Illustrations or logos are always needed too, in the form of clear prints, slides or drawings.

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National Coordinator's Report

Jeanette Mill

Judging by the continuous flow of details of conferences, newsletters, websites and publications about plant conservation coming into this office, the number and diversity of plant conservation projects in Australia continues to grow. Without good coordination, communication and cooperation between all these initiatives, our efforts will be piecemeal at best. With incorporation, ANPC is in a stronger position than ever to act as an independent coordinator and facilitator of all these initiatives - an approach which can only strengthen plant conservation in Australia, making the whole greater than the sum of its parts.

However, this means that **this is your network**, and if the network is to be of maximum benefit and relevance to its members, it needs YOUR support and input. It is, effectively, what you make it. For example, even seemingly simple things such as submitting a report of your work to *Danthonia*, or helping to promote the conference through your own networks, will assist greatly in keeping the networking going.

The Conference

The November conference will be an excellent opportunity to put the theory of networking for plant conservation into practice - with your help in promoting it, and by sharing your experiences in a paper or poster, we hope to get a good representation of plant conservation interest groups to Albury Wodonga to set the agenda for the future. The conference is a very important event in the ANPC calendar, and the major opportunity for all members to set the direction for ANPC and plant conservation.

It is shaping up to be an exciting event. The careful structuring of the program will provide maximum interest and benefit to all of ANPC's members and the local community in a way that should prove accessible and affordable. Firstly, the conference is being held partly over a weekend. This will give community members who cannot take days off work the chance to attend two important days of the conference - the final day of the papers and the final plenary session on the Saturday, and the practical techniques workshops on the Sunday. By

tapping into the wealth of assembled expertise these workshops will be extremely valuable in providing 'take home' skills and networking contacts, and are an affordable \$50 for the day.

Other strategies to make the conference accessible include a venue where the options of camping, cabins and motel units offer extremely affordable, and all together on-site accommodation. Albury Wodonga is a central location, within driving distance for a large percentage of members, thus minimising travel costs. Generous discounts are also available through Ansett and Kendall Airlines - details in the registration brochure.

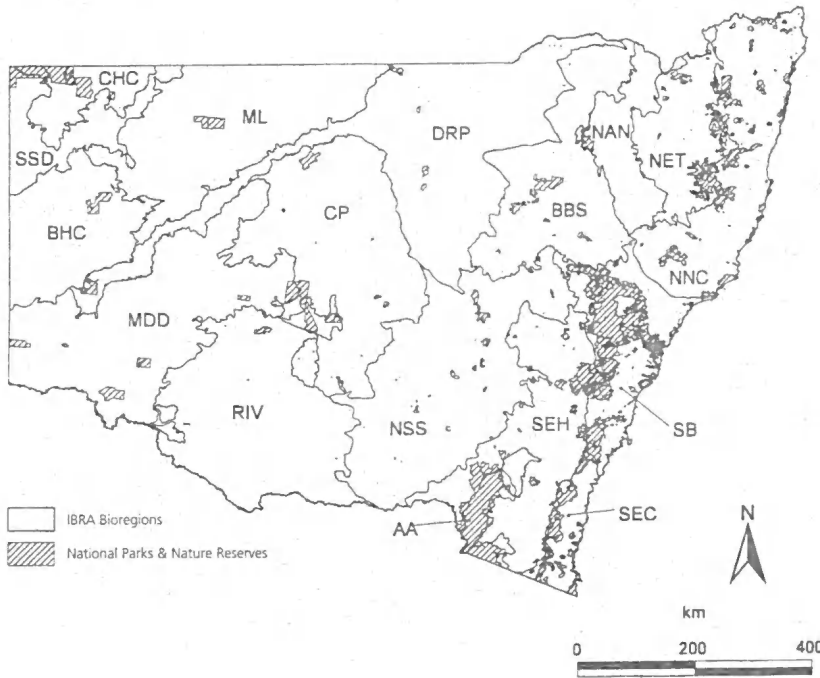
Several major themes will focus on important emerging aspects of conservation, such as the conservation and restoration of ecological communities; or greatly under-emphasised themes such as the conservation of non-vascular plants. The importance of planning and practising conservation at a regional level will also be emphasised; holding the conference in a region which straddles political boundaries presents a valuable opportunity to develop the concept of a strong regional approach to conservation. Overcoming the fragmentation still so apparent in the number and variety of approaches to plant conservation and between attempts to conserve plants and animals will be a recurring theme. Now as ever it is vital that members network, share information, and practise the principle that we are more effective working together than in isolation. So please use the forum of ANPC to ensure valuable resources are used wisely by avoiding duplication of effort.

ANPC on the International Stage

The Network continues to receive considerable international recognition, mainly because of the lessons it has to impart on promoting strong networking and the integration of all stakeholders. In late September I will represent ANPC at the *Strategies for Survival* conference in Chicago (see Electronic Addresses section) to explain the work of ANPC, particularly in integrating approaches to plant conservation. The organisers are providing generous financial assistance and billeted accommodation, for which I express my sincere thanks.

As part of the trip I will also have the opportunity to spend a few days at Royal Botanic Gardens Kew participating in the International Diploma Course in Plant

(continued from page 1)



Bioregions of NSW showing the distribution of conservation reserves and the percentage of each bioregion conserved. The forests and heathlands of eastern NSW are better covered by reserves than woodlands, shrublands and grasslands of the predominantly private lands of the tablelands, western slopes and inland plains.

Key:

AA: Australian Alps; BBS: Brigalow Belt South; BHC: Broken Hill Complex; CHC: Channel Country; CP: Cobar Peneplain; DRP: Darling Riverine Plains; ML: Mulga Lands; MDD: Murray-Darling Depression; NAN: Nandewar; NET: New England Tableland; NNC: NSW North Coast; RIV: Riverina; SSD: Simpson-Strzelecki Dunefields; SEC: South Eastern Corner; SB: Sydney Basin

with planning areas mostly covering several local government areas. The main role of these committees is to develop RVMPs. *Setting the Scene* argues that the better the vegetation mapping, vegetation classification, threatened species data, social and economic information, the better the chance of a committee producing a sound RVMP. These committees also need access to existing data for a region. The paper therefore suggests that the NSW natural resource data directory must be further developed so that all relevant information about vegetation, plant and animal species, soil, abiotic features and land degradation can be efficiently collated, and it suggests ways in which this can be achieved.

The papers following *Setting the Scene* cover the topics of social, Aboriginal, economic, ecological and greenhouse values of native vegetation. Another paper deals with administrative arrangements within NSW to protect vegetation — everything from establishing reserves, to incentives for works on farms.

These papers not only provide the reader with a good summary of their respective topics, they contain a list of options for improving the current arrangements for protecting native vegetation. These options will form the basis for developing action plans and performance indicators in the draft strategy. These actions

The Native Vegetation Conservation Strategy for New South Wales: Your chance to comment

The *NSW Native Vegetation Conservation Act 1998* stipulates that the Native Vegetation Advisory Council (NVAC) is to develop a Native Vegetation Conservation Strategy to guide future programs in vegetation conservation, including regional planning. This Strategy has to take into account existing National and State Biodiversity and Greenhouse Strategies. A subcommittee of NVAC is developing the Strategy. NVAC was established under the Act to advise the Minister for Land and Water Conservation on native vegetation. It has 14 members from a cross-section of the community including farmers, conservationists, departmental representatives and a scientific representative from the Ecological Society of Australia.

The draft Native Vegetation Conservation Strategy is due for completion by the end of 1999. It will be displayed for public comment before a final strategy is produced for ratification by the NSW Government. *All interested ANPC members should comment on the draft strategy. A brochure about the strategy can be obtained by phoning the Dept of Land & Water Conservation on: (02) 9228 6415*

(continued from page 4)

will fall under a number of desired outcomes within an overall vision for the future for vegetation. Examples of outcomes are "increase in native vegetation cover and condition" or "establish a comprehensive, adequate and representative reserve system".

Over 2500 copies of *Setting the Scene* have been distributed to organisations and individuals interested in managing and conserving native vegetation. It is hoped that

the other six background papers will be similarly distributed.

The following are contact details for obtaining copies of the NVAC background papers:

Phone: (02) 9895 7024; Email:

nvacexec@dlwc.nsw.gov.au

Or write to: Executive Officer, Native Vegetation Advisory Council, c/o Natural Resources Secretariat, Department of Land and Water Conservation PO Box 3720 Parramatta, NSW 2124.

(continued from page 3)

Conservation Techniques. I will be providing an overview of the work of ANPC and how plant conservation is practised in Australia. This is the course that inspired the ANPC Plant Conservation Techniques Course, and this opportunity for professional exchange and

furthering vital international links between the two courses will be extremely valuable.

Assistance with expenses and accommodation is also being provided whilst at Kew - the power of networking!

New Director for Australian National Botanic Gardens

As this *Danthonia* was being prepared, ANPC and ANBG were celebrating the appointment of John Hicks as the new Director of the ANBG. A forester by training, John has worked in national parks and wildlife management for the last twenty-five years. Canberra born and raised, he studied forestry at the ANU, and his career spans conservation work both on the ground and at policy level. He replaces Tim Richmond, who retired recently after more than four years as Executive Director of the Gardens.

During the seventies John managed the Jervis Bay Nature Reserve with the ACT Parks Service before transferring to the then Australian National Parks and Wildlife Service as the Government Conservator on Christmas Island in the Indian Ocean.

He had a decade of island conservation, looking after the nature conservation responsibilities of the ANPWS at various times in the Ashmore Islands, Coral Sea Territory reserves and Pulau Keeling before finishing off with four years as Government Conservator on Norfolk Island. Particular interests during this period included the breeding migrations of Christmas Island's red crabs, endangered species conservation and invasive species management.

John managed a number of ANCA wildlife programs in the early 1990s including the Endangered Species, Feral Pests and Migratory Species Programs. He had a lead role in the creation of the Commonwealth's *Endangered Species Protection Act 1992* and was present at the birth of the ANPC.

In early 1995, John moved into forest policy issues as the head of the newly established ANCA Forest Biodiversity Branch before transferring to Darwin to oversee management of Parks Australia's northern protected areas.

John is impressed with the evolution of the ANPC over recent years and is pleased that the ANBG has been able to contribute to this by hosting the Network's office and with other support. The ANPC has recently moved to a new and larger office in the ANBG and John looks forward to maintaining the ANBG's close association with the ANPC in the future.



John Hicks. Photo: Barry Brown

Introducing Fiona Hall

Fiona Hall was appointed as Assistant Coordinator in ANPC's National Office at the end of July. She comes to Australia from the UK, and has a background in both wildlife conservation and editing. Here she introduces herself:

I come to ANPC fresh from 'the field', as my last job in the UK before accompanying my husband to Canberra was as Wildlife Sites Officer for a county Wildlife Trust. There I worked with the owners and managers of a vast array of remnant vegetation sites, ranging from wildflower-rich grasslands to ancient woodlands and roadside verges, providing management advice and help with grant schemes. The job also involved helping implement species Recovery Plans — for example, for the beautiful but threatened Cornflower, *Centaurea cyanus*, an arable wildflower now reduced by intensive farming to only four populations in the entire United Kingdom.

On first arriving in Australia I was daunted by the sheer diversity and utter difference of the ecology found here. On early bushwalks I was made homesick by the sight of 'British' weeds like Centaury (*Centaureum erythraea*) and Agrimony (*Agrimonia eupatoria*) - to a British

ecologist, indicators of species-rich grassland, but to an Australian ecologist, of something quite different! I have got used to calling them weeds, and hope that by working at ANPC I can help reverse some of the damage us colonists have wrought in Australian ecosystems! Although my childhood was spent living in Africa, the Middle East and North America, Australia has already announced itself to me as somewhere very special indeed, and I realise that many issues in plant conservation are similar the world over.

One of my roles at ANPC is to edit *Danthonia*. This is an exciting opportunity to continue the excellent work done so far to make this newsletter a key means for exchanging information on plant conservation in Australia. I would urge all members to treat this newsletter as their own forum for information exchange, and to continue contributing your reports, articles, forthcoming events and so on. It's so important that we learn from each other's experiences and not waste precious resources duplicating effort.

I look forward to meeting you over the next few months - please feel free to give me a ring or send me an e-mail if there's anything we can do for you in the National Office, or if you just want to say 'hello'.

Managing information for plant conservation: An approach from New Zealand

*John Sawyer, Department of Conservation,
Wellington*

Accurate information about the status, location and management needs of plant species of conservation concern is a vital tool for achieving effective and coordinated conservation actions. The New Zealand Department of Conservation has developed and now maintains an indigenous plant database in Wellington Conservancy (one of New Zealand's 13 administrative regions). That database proved to be so useful that many other regions adopted the same system. It is now being used as the basis for a national plant database and could also be of use in implementing plant conservation strategies in other countries.

The first step in the approach was to prepare and publish a plant conservation strategy for Wellington Conservancy in 1996 (Empson & Sawyer 1996). That strategy identified the indigenous plant species of conservation concern and key tasks to be undertaken. The compilation of information about plants of conservation concern onto a central computer database held in Wellington was a principal part of the strategy.

Information on the database includes: species occurrence and abundance data (that can be viewed using a Geographic Information System); taxonomic information and *ex situ* details. A Microsoft Access database is used that is available to all staff in the region. That means all staff, especially those working in the field, can quickly access the information they need to carry out site-based work.

Information has been gathered for the database for the past five years from a variety of sources, including all New Zealand herbaria;

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many plant reports and publications (including past vegetation surveys); species recovery plans; the diaries of botanists; a collection of plant checklists; and record sheets completed by departmental staff and others (such as members of the Wellington Botanical Society).

Conservancy staff now work to ensure the database is accurate and up-to-date and enter new information as it arrives.

The database has many uses once the information has been entered. For example, the information has now been field checked and published as a guide and plant atlas (see Sawyer et al. 1998). The Department of Conservation has also prepared management plans for all populations of nationally threatened indigenous plant species, and their associated plant and animal communities (see Townsend et al. 1998). Those plans are implemented as part of annual work programmes. Additional population plans are prepared when new species populations are discovered.

Furthermore, the data has been used as an integral part of the regional plant conservation strategy to:

- Provide baseline information for comparative analysis of future changes in the distribution of the species
- Develop research projects that seek to provide ecological explanations for observed distribution patterns
- Determine the degree to which a species range coincides with Protected Natural Areas and so help prioritise efforts for legal protection of threatened species populations
- Identify sites to which threatened plant species introductions should be considered

Database information has also been used to prepare regional plans for conservation management of plant species of regional

importance (eg. management indicator species) but not regarded as nationally threatened. One example is a plan prepared for *Metrosideros robusta* (northern rata - used in various parts of the country as an indicator of forest condition) (McKessar and Sawyer 1999).

Please contact John Sawyer for more information about the plant conservation strategy, the plant field guide, the population management plans or the regional plant information database. John will also be talking about plant conservation in New Zealand at the ANPC Conference in Albury Wodonga in November, as well as demonstrating the database.

John Sawyer: Technical Support Officer - Biodiversity, Department of Conservation, Wellington Conservancy, P.O. Box 5086, Wellington, New Zealand. Tel: (04) 470 8427, Fax: (04) 499 0077, Email: jsawyer@doc.govt.nz

Further Reading

Empson, R. and Sawyer, J.W.D. 1996. Plant Conservation Strategy — Wellington Conservancy. Department of Conservation, Wellington.

McKessar, K. and Sawyer, J.W.D. 1999. Northern rata (*Metrosideros robusta*) in Wellington Conservancy: Current status and future management. Department of Conservation, Wellington

Sawyer, J.W.D., Townsend, A.J., Beadel, S.M, de Lange, P.J. and Shaw, W.B. 1998. Plants of National Conservation Concern in Wellington Conservancy. Department of Conservation, Wellington.

Spellerberg, I.F. & Sawyer, J.W.D. 1999. An introduction to Applied Biogeography. Cambridge University Press. Cambridge.

Townsend, A.J., Sawyer, J.W.D., Beadel, S.M, de Lange, P.J. and Shaw, W.B. 1998. Plants of National Conservation Concern in Wellington Conservancy: Current status and future management. Unpublished report by the Department of Conservation, Wellington.

Announcing a Day of Plant Conservation Techniques Practical Workshops

ANPC is running a day of practical workshops in plant conservation techniques as part of our national conference. Workshop topics will include helping to identify and map fungi, propagating rare and threatened plants, monitoring techniques, the Wollemi Pine as a case study of integrated plant conservation, plus posters, computer demos and bookstalls. Aimed at landholders, community groups and interested individuals, the workshops will be held from 9am to 5pm, Sunday 28th November at Lake Hume Resort, Albury Wodonga. The cost for the day is \$50, which includes lunch, plus morning and afternoon tea. Contact the National Office for more information.

Caretaking *Caladenia concolor*

Paul Scannell, Albury Botanic Gardens

Mark Sheahan, Dept. of Land & Water
Conservation, Albury

All of you who have received recent mailings from ANPC will now be familiar with the threatened Crimson Spider Orchid, or *Caladenia concolor*, whose photo appears on the ANPC conference material. Recent genetic research by David Jones at the Australian National Herbarium has revealed that known populations of *Caladenia concolor* are currently restricted to only one viable population near Albury. Here Paul Scannell and Mark Sheahan describe the work being done to protect this population and to discover others.

This population of *Caladenia concolor* was discovered about five years ago, when a local orchid enthusiast and his partner, involved in monitoring populations of rare orchid species in NSW and Victoria, were strolling through the Nail Can Hill range near Albury. This discovery prompted them to seek help in securing the area, as it had suffered from many years of abuse and neglect. Coming across a member of the ANPC (Paul Scannell) at the Albury Botanic Gardens who could assist them, they set about making inquiries with the appropriate authorities to protect what they knew to be one of the most diverse areas of flora and fauna in the South West Slopes.

A Threatened Species Recovery Team was assembled to devise a Recovery Plan for the population. The team comprises staff from the New South Wales National Parks and Wildlife Service, the Australian National Herbarium, the Department of Land and Water Conservation, Crown Lands and community site managers and is coordinated by Stephen Clark of NSW NPWS. The Recovery Plan has now been drafted and urgent actions and threats identified and acted on.

Prime potential habitat for *Caladenia concolor* has been identified in the Albury area, and surveys will be carried out in September to try to identify new populations. Populations of similar *Caladenia* species at Bethungra and Burrinjuck have been made secure but their identification is still to be verified.

The associated mycorrhizal fungus is essential for any future possible *ex situ* propagation research. It was decided to isolate the fungus from the Bethungra population of *Caladenia* species, so as not to jeopardise the few remaining plants of known *Caladenia concolor*.

David Jones of the Australian National Herbarium collected the samples from Bethungra and they have been sent to Kings Park and Botanic Garden, Perth, WA, for culturing.

A small number of seeds may be collected from the Albury population for cultivation at isolated venues, but this is still to be determined due to the fragile status of the existing population. Hand weeding around the known plants to remove the invasive *Briza minor* (Shivery Grass) is being carried out to maximise the possibility of *in situ* germination.

Feral animal control is also being carried out, including the release of calicivirus for rabbits, which dig up and eat the plants. The possible trapping of feral cats is being investigated as the area also contains the Regent Honeyeater and the Turquoise Parrot.

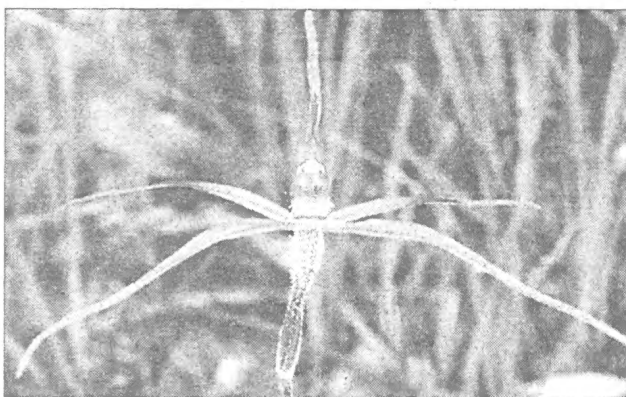


Photo by Peter Branwhite

Replacement of old fences to deter trail bikes, 4WDs and rubbish dumpers will be carried out by the Australian Trust for Conservation Volunteers. Much of this work is funded by the NSW Biodiversity strategy and in kind contributions from the Albury City Council. The ATCV volunteers will also carry out weeding by hand and closure of non-essential tracks, to allow regeneration and possible recovery of orchid friendly sites.

Hear more about the *Caladenia concolor* Recovery Planning process at the ANPC Conference, where Stephen Clark, coordinator of the Plan, will be speaking. One of the ANPC post-conference field trips also will be visiting Nail Can Hill, the stronghold of *Caladenia concolor*.

For more information contact: Paul Scannell, Albury Botanic Gardens, 700 Smollet Street, Albury, NSW, 2640.

Tel: (02) 6023 8241, Fax: (02) 6041 6527

Email: accgardn@albury.net.au

Bryophyte Conservation in the UK

Ron Porley

In the UK it wasn't too long ago that bryophyte conservation was seen as a marginal activity, but there are now very significant milestones in the conservation of this important element of the British flora. Here Ron Porley, a bryologist and Botanical Adviser at English Nature, England's statutory conservation agency, describes the overall approach to bryophyte conservation, and outlines some recent developments, including ground-breaking ex situ work.

There is currently a two-pronged approach to the conservation of bryophytes in the UK consisting of both *in situ* and *ex situ* elements.

In situ approach to bryophyte conservation

Habitat conservation is the preferred approach, and is mainly achieved through the Sites of Special Scientific Interest (SSSI) protected area mechanism. In England there are currently just over 4000 SSSIs, covering some 980,500 hectares or approximately 6.8% of England's total area. There are similar networks of protected sites in Wales, Scotland and N. Ireland. National Nature Reserves are also important (most are SSSI) in conserving our bryoflora, and there are about 200 in England. However, management for many different taxonomic groups is a difficult balancing job, and bryophytes usually have to take their chances as management is often directed at the vegetation level.

The UK government, as part of its responsibilities as a signatory to the Convention on Biological Diversity, has published Action Plans for our most threatened taxa, including about 50 bryophytes. This has given the statutory conservation agencies a framework, and resources, within which we can carry out work on individual species. We also work closely with the British Bryological Society. English Nature runs a Species Recovery Programme, which was up and running before the Biodiversity Action Plan process came into being, and this currently includes eight bryophytes. Much of the work involves gathering fundamental information on localities, population size and threats. The critically endangered moss *Orthodontium gracile* is a species I am currently working on, concentrating on re-finding it at old localities, assessing the threats, and working with Royal Botanic

Gardens, Kew and the British Museum to carry out molecular/DNA work. English

Nature is also about to part fund two lower-plant posts, one attached to the British Museum and another to Plantlife, the non-governmental plant conservation charity. This will enable more species oriented work to be undertaken.

Ex situ approach

As part of the Biodiversity Action Plan work we are just about to set up a 3-year pilot project with Royal Botanic Gardens, Kew to investigate methods and protocols of *ex situ* conservation of our most threatened bryophytes in the UK. There is no other institution anywhere else doing this type of work.

A workshop on the *ex situ* conservation of bryophytes was held in February 1999 at Kew, with participants from Europe and North America. The argument for *ex situ* conservation was not universally accepted, at least initially, but at the end of the workshop all reservations had been dispelled and some contributors even suggested we should widen the remit to cover Europe, and even the world! Part of the concern was that resources for *in situ* conservation would be diverted, but this is not the case and we acknowledge that *in situ* conservation has to be the priority. However, many of our most threatened bryophytes are restricted to a single or a handful of sites and a catastrophic event could quite easily lead to their loss. The idea is eventually to have a kind of bryophyte 'bank', as an insurance against loss in the wild. Kew has substantial experience in micropropagation of vascular plants, and such expertise can be brought to bear on non-vascular plants. Another significant advantage of an *ex situ* resource is the invaluable opportunities for studying the biology of these very rare plants, without compromising the survival of the plants in the wild. Translocations will, potentially, be the inevitable end point, and by having a resource that can be easily bulked up we can trial various techniques so that at least we are prepared for the worst.

For more information contact: Ron Porley, Botanical Adviser, English Nature, Foxhold House, Crookham Common, Thatcham, RG19 8EL, UK. Email: ron.porley@english-nature.org.uk





Natural Heritage Trust
Helping Communities Help Australia

Protection and Management of Fragmented Vegetation Communities



The conservation of fragmented lowland ecosystems has always been a challenge, particularly as these remnant ecosystems are usually comprised of scattered, small sites under a variety of tenures (eg cemeteries, rail easements, roadsides, town commons, travelling stock reserves and private land). It is unlikely that they can be adequately conserved in a conventional reserve network.

In NSW a new model is being proposed for the protection and management of fragmented ecosystems. It proposes that owners of sites retain tenure and management of the sites, but are encouraged to use conservation planning mechanisms and existing incentive schemes to ensure the sites continue to be a haven for the vegetation they contain. With a number of sites around the state a 'network' can be formed ensuring the long-term survival of these vegetation communities. The model is currently being trialed on the Grassy White Box Woodlands of NSW (see January's *Danthonia*, Vol 7, No. 3, where Mark Williams reported on the work of the Grassy White Box Woodland

Protected Area Network). It is envisaged that this model could also be applied to other vegetation communities throughout Australia.

The development of this model is being funded by the Natural Heritage Trust, through the National Reserves System Program of Environment Australia, and is being undertaken by the NSW National Parks and Wildlife Service and Drs Suzanne Prober and Kevin Thiele (Ecological Interactions). An inter-agency NGO Conservation Management Network steering committee has been established to oversee the development and trial of the model. Suzanne Prober and Kevin Thiele have prepared a paper which outlines the proposed model for the Grassy White Box Woodlands on behalf of this steering committee. The committee is currently calling for comments on this model.

If you would like to comment on this paper, please contact Erica Higginson, the Conservation Management Network Project Officer, on (02) 9585 6659.

Email: erica.higginson@npws.nsw.gov.au

Dave Gordon 100 years old

Murray Fagg, Australian National Botanic Gardens

Dave Gordon, the man who developed what is probably Australia's most successful cultivar, *Grevillea* 'Robyn Gordon', celebrated his 100th birthday on the 9th July.

Dave's property Myall Park near Glenmorgan in southern Queensland is the origin of several famous cultivars, including 'Robyn Gordon' and 'Sandra Gordon' named after his daughters. He accumulated a fine collection of Western Australian plants in cultivation, with strong Proteaceae representation. Myall Park is now set up as a botanic gardens in trust to the nation as a non-profit company run largely by volunteers.

Dave didn't really get interested in growing native plants till he was in his 50s. I last saw Dave seven years ago, and at 93 he hopped into our car and gave us a quick tour of the plantations, pointing out individual plants and reminiscing about where and when he collected the seed and their history. The original plant of *Grevillea* 'Robyn Gordon' developed in 1963, was still alive then.



Dave Gordon. Photo Murray Fagg



Ecological Management & Restoration: A Journal With A Difference



A new Australian journal, "Ecological Management & Restoration" will be launched early next year. The editor, Dr Tein McDonald, outlines its aims.

The arrival of this journal, a collaborative effort between the Ecological Society of Australia (ESA); the Land and Water Resources Research and Development Corporation (LWRRDC); and Blackwell Science-Asia, is timely, although it has been a long time coming. Sustainable land management in today's context of very high development pressure requires far more information about the details of ecological interactions than was required in days when populations were small and communities more integrated. If today's human communities are to prevent or reduce environmental degradation, ecological information needs to be not only well researched and well grounded in reality, but also well communicated. It is hoped that this journal will make a strong contribution to fostering sound and relevant scientific and field research, and that it will fulfil its primary aim of creating more effective links between the findings of scientific research and the needs and actions of on-ground managers.

Why 'management and restoration'?

'Ecological management' at its simplest is the practice of preventing and reversing ecosystem degradation. Management solutions are drawn from many scientific and practical disciplines. But we must also draw upon an understanding of the cultural forces underlying our land management actions.

Particular focus is given to the science and practice of 'ecological restoration' as, regrettably, degradation is so well established that many ecosystems cannot be properly managed without restoration as a preliminary management treatment. Healthy ecosystems will also benefit from this focus as they are susceptible to global environmental degradation processes such as climate change and pollution. By engaging with restoration we also gain an indelible insight into the limits of natural systems to the demands of the human species —

which hopefully will strengthen our identification of management systems needed to protect what is left.

Who will be contributing?

What is different about this journal is that it welcomes contributions from field workers and managers, as well as from the scientific research sector. Socio-economic or philosophic contributions are also sought where they are relevant. Those of us leaning towards practice will welcome this journal as an opportunity to exchange information and gain access to relevant ecological research so we can improve the success of our on-ground actions. Those of us leaning towards basic research may welcome practical opportunities to 'acid test' theories; to examine how ecosystems respond to real interventions; and to contribute information vitally important to improved ecosystem management.

Guiding principles for content

Each issue aims to cover a range of fields of practice and a wide geographic spread. Content and case studies could represent a diversity of habitats, from coastal to rainforest and arid lands; and a vast array of topics, such as endangered species recovery plans, genetic issues, planning and policy, mining, role of indigenous peoples and monitoring and evaluation. A 'notes' section providing short notes of interest and summaries of conference papers will be a regular feature.

All major contributions will be peer reviewed by both scientists and practitioners as advised by the 30-strong Editorial Board. Writing style needs to be accessible to a wide audience including practitioners, managers and scientists. Prospective contributors should contact the editor before completing drafts to check the suitability of their material or ideas for the journal.

Further details and interim 'Instructions to Contributors' are available from the Editor, Dr Tein McDonald, Ecological Management & Restoration, P.O. Box 214 Woodburn NSW 2472 Tel: 02 6682 2885. Email: teinm@ozemail.com.au

Call for Comments: IUCN Reviews the Red List Criteria

In 1994, IUCN adopted new criteria for assessing extinction risks to species, and these are now used for evaluating species for inclusion in IUCN Red Lists. Approximately 15,000 species were assessed using the new criteria for *The 1996 IUCN Red List of Threatened Animals*. Of these, 5,205 were listed as threatened with extinction. The relative objectivity of the new listings has made them an excellent tool for observing changes in status over time and for providing a more systematic and transparent approach to listing. The new method has attracted great interest from wildlife agencies and management authorities, as well as the media. Not surprisingly, there are also some difficulties with the new system, including the assessments of harvested species, long-lived species (such as elephants and marine turtles), and the status of some small and very narrowly distributed endemic plants and invertebrates.

At the World Conservation Congress (WCC) in Montreal in October 1996, the Species Survival Commission was mandated to "complete its review of the IUCN Red List Categories and Criteria, in an open and transparent manner, in consultation with relevant experts, to ensure the criteria are

effective indicators of risk of extinction across the broadest possible range of taxonomic categories...". SSC set up a Criteria Review Working Group consisting of 22 members, representing a wide range of animal and plant taxa, and including people with technical expertise in extinction risk assessment, as well as those with experience in applying the criteria. Workshops were held between January and July 1999, including a workshop in Sydney in May this year.

As a result of this process, draft recommendations have been made on how the Red List criteria should be revised. These proposed changes are now open for wider comment and input, and will shortly be published in the SSC Newsletter *Species*. The deadline for comments is the 31st October 1999. To find out how to receive a copy of the draft proposed changes and recommendations, contact:

Craig Hilton-Taylor, IUCN Red List Programme Officer, IUCN/SSC UK Office, 219c Huntingdon Road, Cambridge, CB3 0DL, UK. Ph: +44 1223 277 966; Fax: +44 1223 277 845; Email: craig.hilton-taylor@ssc-uk.org

New Faces in the Plant Conservation World

The latest *Botanic Gardens Conservation International News* (Vol.3 No. 2, June '99) reports on some recent international appointments:

- ❑ IUCN has a new Director-General, Dr Maritta Koch-Weser, appointed in March 1999. She comes from the post of Director of Environmentally and Socially Sustainable Development for the Latin American Caribbean Region of the World Bank. Her primary goal in the new post is to accelerate concrete action in meeting targets set at Rio.
- ❑ *The Royal Botanic Gardens, Kew* appointed a new Director to succeed Professor Sir Ghillelan T. Prance, who retired in July. His name is Professor Peter Crane, a British botanist who comes to Kew from the Directorship of the Field Museum of Chicago. His active research interests include integrating studies of living and fossil plants to understand large-scale patterns and processes of plant evolution.
- ❑ CITES also has a new Secretary-General, in the person of Willem Wijnstekers. From the Netherlands, Mr Wijnstekers has been responsible for many years for wildlife trade legislation in the European Commission's Directorate General for the Environment, Nuclear Safety and Civil Protection.

Sustaining Medicinal Plants for the Future

Jonathan Vea, TRAFFIC Oceania

The commercial demand for many of the world's medicinal plants, including many endangered species, is rapidly increasing. Considering that a large proportion of these plants are harvested from the wild, many populations of commonly used herbs are becoming depleted. European and North American experiences demonstrate alarming trends which threaten species such as Goldenseal (*Hydrastis canadensis*), Gentian (*Gentiana lutea*) and American Ginseng (*Panax quinquefolius*).

This was one of the main concerns raised at the conference *Medicinal Herbs for the Future — Sustainability and Ethical Issues* conducted by the National Herbalists Association of Australia at Byron Bay on the 13th—14th August. The conference was attended by around 100 delegates consisting of herbalists, herb industry representatives, growers, conservationists and members of the Aboriginal community.

Issues identified of priority concern included the need for a code of ethics for wild harvesting, as well as an attempt to monitor the amount of wild harvesting in Australia. Other challenges included industry policies for procuring endangered and at risk herbs from Australia and overseas sources, ethical and environmental

considerations over harvesting wild plants, and the need to recognise and deal with the issues of indigenous knowledge and intellectual property rights. One of the final resolutions of the conference was for the establishment of a new working group funded and assisted by the stakeholders and devoted to addressing the issues of conservation, sustainability and ethical production of medicinal plants within Australia.

This was an important conference. It was encouraging to observe an industry becoming proactive with a desire to work with indigenous and conservation communities in both a transparent and participatory manner. Most importantly such a mature process allows an industry to look within itself and look ahead to circumvent problems which may affect us all.

Some of the species discussed at this conference were also mentioned during the recent CITES plant meeting (see below)

For more information, contact Jonathan Vea of TRAFFIC Oceania, GPO Box 528, Sydney NSW 2001. Ph: (02) 9280 1671; Fax: (02) 9212 1794; Email: jvea@traffico.org

OR Andrew Pengelly, National Herbalists Association of Australia. Phone/Fax: (02) 65485189 Email: pengelly@hunterlink.net.au



CITES Plant Meeting Held in Australia

CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) was established to control and monitor the international trade in plants and animals considered to be threatened, or likely to become threatened, by such trade. This June Darwin was the location of the 9th Meeting of the CITES Plants Committee. Between the 7th and 11th June, delegates from around the world gathered to discuss a range of issues related to trade and threatened plants. The main aim was to review and make recommendations on the species, programmes needed and emerging areas of concern to be put to the next Conference of the Parties. During the meeting representatives from Oceania countries met to discuss how to improve communication within the region. The difficulty of this was highlighted by the fact that despite the meeting being held in Australia, the Oceania representatives consisted almost entirely of those from within Australia itself.

We hope to include a fuller report of the outcomes of the CITES meeting in a future issue of *Danthonia*.



John Donaldson, Chair of the IUCN Species Survival Commission Cycad Specialist Group and African CITES representative, talking cycads near Darwin on a field trip during the CITES plant meeting.
Photo: Jeanette Mill.

Publications

Native Vegetation National Overview: Report for ANZECC. Griffin nrm P/L. (1999). Environment Australia, Canberra.

The Commonwealth, in cooperation with the States and Territories, has developed the 'first draft' of best practice attributes for management and monitoring mechanisms (*DRAFT National Framework for Management and Monitoring of Australia's Native Vegetation, July 1999*). The *Native Vegetation National Overview* is intended to provide information to each jurisdiction as they review their management and monitoring approaches, and is also a useful and up-to-date overview of the situation as regards native vegetation legislation, management and monitoring in each jurisdiction.

Copies are available from Michael Whitehead, Environment Australia. Ph: (02) 6274 2237. Michael.Whitehead@ea.gov.au

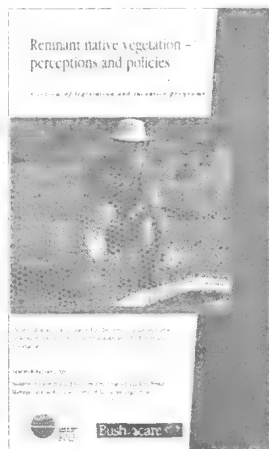
Remnant Native Vegetation - Perceptions and Policies: A review of legislation and incentive programs. Denys Slee and Associates (1998). Environment Australia, Canberra.

Reports on the legislative framework for native vegetation management from farmers' perspectives and identifies opportunities for government and communities to improve management in partnership with landholders. It includes summaries of farmer interviews and aspects of legislation relating to vegetation clearance.

Free copies available from Environment Australia: Ph: 1 800 671 717

Native Vegetation on Farms Survey 1996: A survey of Farmers' Attitudes to Native Vegetation and Landcare in the Wheatbelt of Western Australia. Jenkins, S. (1998). Environment Australia, Canberra.

Free copies available from Environment Australia: Ph: 1800 671 717



Smoke germination of Australian plants. Vigilante, T, Dixon, K, Sieler, I, Roche, S & Tieu, A. (1998). A report to the Rural Industries Research and Development Corporation.

This publication details the development and application of smoke for nursery propagation with opportunities for the use of smoke as a tool for land rehabilitation and management.

It costs \$15, and can be ordered from RIRDC, PO Box 4776, Kingston ACT 2604

Phone: (02) 6272 4539 Fax: (02) 6272 5877
Email: rirdc@rirdc.gov.au

Current Names for Wild Plants in New Zealand. Parsons, M.J., Douglass, P. & Macmillan, B.H. (1998). Manaaki Whenua Press: Lincoln, NZ.

A list of botanical names in current use for wild plants in New Zealand, as used by the Plant Herbarium CHR at Landcare Research in Lincoln, Canterbury.

Available from Manaaki Whenua Press, PO Box 40, Lincoln 8152, New Zealand, for US\$42.50 (includes packing and postage).

Electronic Addresses

The New Environment Protection and Biodiversity Conservation Act 1999

The new Act is now on the web at:

<http://scaleplus.law.gov.au/html/comact/10/6006/top.htm>

PlantNET

PlantNET is a dynamic information system being developed by the Royal Botanic Gardens, Sydney that provides data on plants of New South Wales. PlantNET can be searched for information on plant names, their distribution and their conservation status. In the future it will provide botanical descriptions, habitat information, images, uses, diseases, and examples in cultivation. It is currently free of charge, but charges may be introduced in the future

<http://plantnet.rbgsyd.gov.au>

Access to Genetic Resources and Benefit-Sharing: Developing Common Policy Guidelines for Botanical Gardens

The 1992 Convention on Biological Diversity presents important challenges to botanical

gardens about the genetic resources represented by their plant collections. These challenges include facilitating access to collections of genetic resources while respecting the spirit of the Convention, ensuring that the collections are managed in a sustainable way and with a view to conserving the genetic diversity represented. In order to seek answers to these challenges, 17 botanical gardens from around the world (including Australia) have prepared a document entitled *Common Policy Guidelines for Participating Botanic Gardens on Access to Genetic Resources and Benefit Sharing*. It can be viewed at:

http://www.rbg.ca/cbcn/cpg_index.html

Strategies for Survival: Ex Situ Plant Conservation Symposium

A three-day symposium on *ex situ* plant conservation will be held on September 29, 30, and October 1, 1999, hosted by the Chicago Botanic Garden, in Glencoe, Illinois, USA (see last issue of *Danthonia*). The symposium is intended to stimulate discussion between *ex situ* providers and consumers, review best practices, and to help create more effective integrated plant conservation activities at all levels, from the local to the global. For those unable to attend, there is an ongoing discussion forum on the web: <http://mtf.bloominc.org/chs/dev/> and there is also a survey on reintroduction issues: by contributing you will help create an online database which will allow you to ask questions about reintroduction programs and their success. It is also planned to use the results of this survey to revise seed collection guidelines for publication in the proceedings. <http://mtf.bloominc.org/chs/dev/survey.cfm>

Conferences

National Conference on New Commonwealth Biodiversity Law

Thursday 14th October, 1999. Masonic Centre, 279 Castlereagh Street, Sydney. The National Environmental Defender's Office (EDO) Network is holding a conference on the *Environment Protection and Biodiversity Act 1999* and the division of environmental regulatory responsibility in Australia. This conference will provide a forum for stakeholders to discuss the implications of the Act and the future of environ-

mental legislation in Australia. It will include an afternoon session on the Act and biodiversity protection, including its effect on threatened species protection. Senator Robert Hill, Minister for the Environment and Heritage, will open the conference.

Contact: Debbie White. Ph: (02) 9262 6989. Email: edonsw@edo.org.au

Dampier 300, Biodiversity in Australia 1699-1999 and beyond

6-10 December 1999. Alexander Library Theatre, Perth, Australia.

Sessions will cover plant systematics, arid zone biodiversity, and research priorities and funding. Pre- and post-conference tours visit a selection of spectacular sites in Western Australia.

Details from Alex George, 'Four Gables', 18 Barclay Road, Kardinya, Western Australia 6163. Ph: (08) 9337 1655; Fax: (08) 9337 9404; Email: alextris@opera.iinet.net.au

Mining Into the Next Century: Environmental Opportunities and Challenges

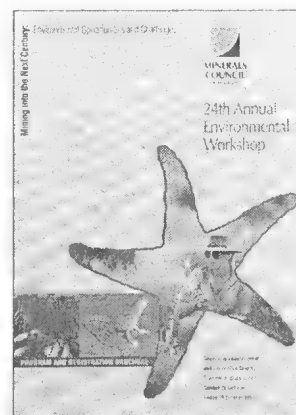
Sunday 10th October–Friday 15th October 1999. Townsville. The Minerals Council of Australia is organising this conference, which will cover minerals industry environmental management, the new ANZECC water quality guidelines, environmental impact, biodiversity, rehabilitation, community partnership, and a review of the Australian minerals industry Code for Environmental management.

Contact: Ms Nedra Burns at the Minerals Council of Australia. Ph: (02) 6279 3634; Fax: (02) 6279 3699; email: nedra.burns@minerals.org.au

5th International Conference on the Ecology of Invasive Plants

13-16th October 1999. La Maddalena National Park, Sardinia, Italy.

Sessions will include: What makes a plant invasive?; invasive plants and national parks; invasive plants in Mediterranean agro-ecosystems.



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Details from Dr Guiseppe Brundu, Dipartimento di Botanica ed Ecologia Vegetale, Università di Sassari, Via F. Muroli 25, 07100 Sassari, Italy. Ph: +39 0335 237 315; Fax: +39 79 233 600; email: gbrundu@box1.tin.it

Courses/workshops/held work

Greening Australia Community Training Program, NSW

Greening Australia Community Training Program is running a host of workshops on native vegetation regeneration, vegetation establishment techniques, native grasses: their role and restoration, and a number of other projects. The projects are running through the entire year and will be held at different councils. Ones coming up include:

- Workshop on managing & restoring coastal vegetation. Pittwater City Council, October 30.
- Workshop on propagating indigenous plants. Blacktown City Council, September 25.

Contact: Greening Australia, Ph: (02) 9560 9144

Vegetation survey, monitoring and weeding work, South Australia

The Threatened Plant Action Group (TPAG) is looking for volunteers to help with a number of practical events in October:

- 2nd-4th October. Mount Cone, near Burra. Vegetation survey and monitoring of South Australia's newest reserve, and the first native grassland to be protected in the state. Species include *Cullen parvum* and *Dodonea procumbens*. Contact: Yvonne Steed, ph: (08) 8339 3081 or Meg Robertson, ph: (08) 8276 5061
- 16th October. Mylor Parklands. Weeding and monitoring of *Euphrasia collina ssp. osbornii*. Contact: Yvonne Steed, ph: (08) 8339 3081 or Maria Johns, ph: (08) 8388 2135
- 31st October. Grange Golf Course. Weeding and monitoring of *Pterostylis arenicola*.

Contact: Birgitte Sorenson on ph: (08) 8258 8051

Community Biodiversity Survey, NSW

1st - 4th October 1999. The Threatened Species Network and the National Parks Association will be running a community biodiversity survey in Kumbatine National Park, near Port Macquarie.

For more information contact Kristi MacDonald at NPA on (02) 9233 4660 or Claire Carlton & Francesca Andreoni. Phone: (02) 9281 5515; Email: ntsnsw@peg.apc.org

Seed Orchard Workshops

Greening Australia (Riverina) is running a series of workshops throughout the Murray Catchment. Louise Bull will be focusing on the establishment of seed orchards to produce locally rare seed for revegetation. These will be held at:

- Culcairn Council Chambers, Culcairn. September 30th 1999, 9am-3pm
- Burrumbuttock Hall, Burrumbuttock. October 7th 1999, 9am-3pm

Contact: Greening Australia Riverina. Ph: (03) 5881 3429. Fax: (03) 5881 3412. Email: gario@clubworld.net.au

Regional Groups

Sydney Region

The Ecology of the Maroota Sandmass and Environs Community Weekend, Saturday 17th July. The ANPC Sydney Region group helped advertise this weekend, which was organised by the Cattai Catchment Management Committee as an information interface for the public. Here John Galea, of the Royal Botanic Gardens, Sydney, reports.

The *Ecology of the Maroota Sandmass and Environs* is a 12 month ecological survey funded by the Natural Heritage Trust and managed by the Cattai CMC. The results of the study will be used to develop a holistic management regime for the area, using the scientific data and recommendations derived from this study and the Maroota Groundwater study. There are several plant communities in the study area with the most notable being the threatened Maroota Sands Swamp Forest.

There was a large turnout for this weekend, comprising locals and interested parties like myself. The day started out with an 'orientation' session where we were introduced to Frank Braybrooks (chairman of the Cattai CMC), Gail Sweeny (Coordinator of the Community weekends for the Cattai CMC), and Ed Freimanis and Ivars Reinfelds of EcoHort (consultants appointed to undertake the study).

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During the day we learned about the process being taken to map the area - no mean feat when one considers it lies within the boundaries of two separate Council jurisdictions and is at the junction of four 1:100,000 vegetation sheets, namely Penrith, Sydney, St Albans and Gosford. GIS has been used to mark all the sand mines and other features in relation to the topography, as well as how the area fits in with the Sydney Regional Environmental Plan No. 9 (No. 2) (Extractive Industries) area and the catchment. A Global Positioning System is being used to map the vegetation of the area, using 36 sites.

A bus tour introduced us to the soils and vegetation types of the area, an informative session, especially with all the *Boronias*, *Banksias*, *Grevilleas*, and *Dillwynias* coming into flower. The sandmining industry is active in the area, but is having major impacts on the catchment, especially on groundwater. In a visit to a sandmining site run by Dixon Sands we learned about the extraction process, rehabilitation of the land after the sand is extracted and the various uses of the product. The Dixon Sand site also contains the ANZECC (1999) listed (vulnerable) *Kunzea rupestris*. The individual plants have been marked and their immediate habitat fenced off and left as natural bushland.

I did not stay for the second day but I can say that if it was anything like the first it would have been very informative and enjoyable. The fourth and final *Ecology of the Maroota Sandmass and Environs* community weekend will be on 16th and 17th October. It should be a big one since the flowering has started and by that weekend should be spectacular.

Tracey Armstrong, the Sydney Regional Group's coordinator has been busy arranging a 'practical techniques workshop' for ANPC's November conference, based around the conservation of the Wollemi Pine. The aim is to convey to the general public some of the masses of actions, implications and commitments involved in conserving a threatened species. These include propagation research, DNA research, in situ management and education, to name but a few. Tracy Armstrong can be contacted at Mount Annan Botanic Gardens. Phone: (02) 4648 2477.

NSW South West Slopes Region
Paul Scannell, Albury Botanic Gardens.

Threatened Species Recovery Plan: As part of the *Caladenia concolor* (Crimson Spider Orchid) Recovery Plan surveys will begin in September of possible sites for further plants in the Albury region. A possible threat to one of these sites was averted in the Land and Environment Court in Albury recently. A proposed development was turned down after a determination by the commissioner recognised that the area in question would be best left intact in the interest of the community. For further details of the *Caladenia concolor* Recovery Plan see the article in this issue (page 8).

ANPC Inc.'s Fourth National Conference, Albury Wodonga. Preparations for the conference are rolling along, with a great array of field trips organised. Featuring some of NE Victoria and Southern NSW's most spectacular flora and scenery, they will certainly be a great chance to take in some of the region's character. The three-day tour of Kosciuszko National Park with Roger Good promises to be a fantastic opportunity to tour some of Australia's best natural features and see some of our most diverse flora and fauna. For inquiries about the field trips, please contact us at the Albury Botanic Gardens office: Ph: (02) 60 238 241, Fax: (02) 60 416 527, E-mail: accgardn@albury.net.au. Web: www.albury.net.au/~accparks.

NSW Regional Botanic Gardens Conference, 1999, Wagga. The NSW Regional Botanic Gardens Conference, held in Wagga Wagga on the 6th and 7th of August, had a real impact on all delegates. A far more cooperative approach to rare and endangered plant collections was a great outcome of getting all the players together and talking to each other. The networking will prove to be invaluable to Regional Botanic Gardens and their staff. A special thanks must go to Frank Howarth, Rob Smith and all the staff from Royal Botanic Gardens Sydney, Mt. Annan and Mt. Tomah, for their organisation of this first NSW Regional Botanic Gardens Conference. The speakers, who included ANPC's Jeanette Mill, and their presentations were effective, essential and entertaining. The Wagga Wagga

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City Council, Kerry Geale and the staff from the Wagga Wagga Botanic Gardens put together a fantastic two days and full credit for their hard work, professional organisation and their wonderful hospitality. To all, thanks for a job well done!

Remember to set aside the 25th to the 29th November for the ANPC Inc. Conference at Lake Hume Resort, Albury Wodonga.



Participants at the NSW Regional Botanic Gardens Conference, 1999, Wagga Wagga. Photo: Jeanette Mill

NSW Western Slopes Region

For information about the group, please contact Coordinator Bob Waters, Burrendong Arboretum, Mumbil NSW 2820. Phone/Fax: 02 6846 7454

Tasmanian Region

For information about the group, please contact Coordinator Andrew Smith, Parks and Wildlife Service, Tasmania. Email: andrews@dpiwe.tas.gov.au. Ph: (03) 6233 2185

Dombrovskis' Gallery Opens in Hobart

The Botanical Discovery Centre in Hobart has recently opened a collection of almost 150 of Peter Dombrovskis' photographs, some of which have never been published before. The photos depict Tasmania's native plants and landscape, ranging from coastal heathland, dry and wet sclerophyll, rainforest, subalpine and alpine communities. Mr Dombrovskis was an internationally renowned wilderness photographer who died on a field trip to the South West World Heritage area in 1996.

Visitors can enter a number, as indicated on each photograph, via touch screen on a nearby computer kiosk to find information such as common names, plant descriptions and where the plants are found in Tasmania. This interactive database is the only one of its kind in the state. There is also a Tasmanian Flora video that screens continuously, and identifies locations within the state for tourists to visit and experience the plant communities first hand.

The Botanical Discovery Centre is located in the Royal Tasmanian Botanical Gardens in Hobart. The Centre's opening hours are from 9.30 am to 5 pm, seven days a week. Contact the Gardens on: Ph (03) 6234 6299



Photo courtesy of the The Botanical Discovery Centre

The Australian Network For Plant Conservation Inc. Membership List

The date in brackets indicates that the member has joined or renewed for that year. Addresses and names of contact persons are available from the National Office.

Note: memberships are valid for the calendar year.

Corporate Members

ACT Parks & Cons. Service (1998)
Adelaide Botanic Gardens (1999)
Albury Botanic Gardens, NSW (2000)
Alcoa of Australia Ltd, WA (1999)
Australian National Botanic Gardens (1999)
Aust Tree Seed Centre, CSIRO (1999)
Biodiversity Group, Environment Australia (1999)
Brisbane Botanic Gardens, Qld (1998)
Caloundra City Council, Qld (1998)
Centre for Plant Biodiv. Rsch, ACT (1999)
Centre for Plant Conservation Genetics, NSW (1999)
Coffs Harbour City Council, NSW (2000)
Conservation & Land Management, WA (1998)
Council of the City of Orange, NSW (1998)
CSIRO Publishing (1999)
Defence Estate Organisation, ACT (1998)
Dept. of Conservation and Land Management, WA (1999)
Environment ACT (1999)
Eurobodalla Bot Garden, NSW (1999)
Flecker Botanic Gardens, Qld (1999)
Forestry Tasmania (1997)
Gladstone Tondoon Botanic Garden, Qld (1998)
Kings Park and Botanic Gardens, WA (1997)
Logan City Council, Qld (1998)
Macedon Ranges Shire Council, Vic (1999)
Maroochy Shire Council, Qld (1998)
Minerals Council of Aust, ACT (1999)
Mt Tomah Botanic Garden, NSW (1998)
Norfolk Island Botanic Garden (1999)
North Forest Products, Tas (1998)
NSW National Parks & Wildlife Service (1999)
Olympic Coord. Authority, NSW (1998)
Pacific Power, NSW (1998)
Parks and Wildlife Commission, NT (1999)
Parks Australia — North, Christmas Island (1999)
Qld Dept. Environment Cent. Coast (1999)
Queensland Herbarium (1998)
Randwick City Council, NSW (1998)
Redland Shire Council, Qld (1999)
RGC Mineral Sands, WA (1998)
Royal Botanic Gardens, Melbourne, Vic (1999)
Royal Botanic Gardens, Sydney, NSW (1999)
Royal Tasmanian Botanical Gardens (1999)
Standing Committee on Forestry, ACT (1999)
Strathfield Municipal Council, NSW (1999)
Tas. Dept. Primary Industries, Water & Environment (1999)
Townsville City Council, Qld (1999)
WMC Olympic Dam, SA (1999)
Wollongong Botanic Gardens (1999)
Zoological Parks Board of NSW (1999)
Zoological Board of Victoria (1999)

International Associates

Auckland Plant Collections Network, NZ
Botanic Gardens Conservation Intl, UK
Botanical Research Institute of Texas
Botanischer Garten und Botanisches, Germany
David Brackett, SSC, IUCN
Canadian Botanical Conservation Network
Center for Plant Conservation, USA
Columbus Zoo, Ohio, USA (1998)
Conservatoire et Jardin Botaniques, Switzerland
Don Falk, USA
Darren Crayne, Florida, USA (1999)
Georgia Endangered Plant Stewardship Network, USA
David Given, NZ (1997)
Craig Hilton-Taylor, UK
Honiara Botanic Gardens, Solomon Islands
Indian Society for Conservation Biology
Indonesian Network for Plant Conservation
Clive Jermy
Kebun Raya Indonesia
Noelline Kroon, South Africa (1998)
Missouri Bot. Gardens Library (1999)
Dr Neil Mitchell, NZ (1999)
Suresh Narayana, India
National Botanical Institute, South Africa
Jeanine Pfeiffer, USA
PlantNet, UK
Rare Plant Consortium, Canada
Royal Botanic Gardens, Kew, UK (1999)
SABONET, South Africa
Society for Ecological Restoration, USA, (1998)
Pritpal Soorae, IUCN/SSC, Kenya
Mark Stanley-Price, IUCN/SSC, Kenya
Dr I Wayan Sumantera, Indonesia
Suva Botanical Gardens, Fiji
Roy Taylor, USA (1998)
Andrew Townsend, Dept. Cons., NZ (1998)
Vailima Botanic Gardens, Western Samoa
Wellington Plant Conservation Network
Mohamed Zackeriya, Sri Lanka

Other Organisations

ARAZPA (1999)
Assn. of Soc. for Growing Aust Plants (1998)
Australian Arid Land Botanic Garden, SA (1999)
Aust Assn. of Bush Regenerators (1998)
Aust. Inland Botanic Gardens, Vic (1997)
Aust. Plants Society Maroondah, Vic (1999)
Aust. Plants Society Newcastle Group Inc. (2000)
Aust. Plants Society Central West Group (1999)
Aust. Plants Society, NSW (1999)
Aust. Plants Society South West Slopes, NSW (1999)
Aust. Trust for Conservation Volunteers (1997)
Brunswick Valley Heritage Park, NSW (2000)
Burnley College, Vic (1999)

Burrendong Arboretum Trust, NSW (1999)
Community Biodiversity Network (1999)
Friends of ANBG, ACT (1999)
Friends of Eurobodalla BG, NSW (1999)
Friends of Grasslands, ACT (1999)
Friends of North Coast Regional BG, NSW (1998)
Friends of Warrandyte State Park, Vic (1998)
Greening Australia (ACT/SENSW) (1999)
Greening Australia Ltd (1998)
Greening Australia (NSW) (1999)
Greening Aust Sth West Plains, NSW (1999)
Greening Aust Sth West Slopes, NSW (1998)
Greening Australia (Vic) (1997)
Hunter Region Botanic Gardens, NSW (1999)
Indigenous Flora & Fauna Assn (1999)
Lismore Rainforest Bot. Garden (1998)
Merri Creek Management C'ttee, Vic (1999)
Monarto Zool. Park, SA (1999)
Myall Park Botanic Garden, Qld (1998)
National Threatened Species Network (1999)
NSW Roadside Env't. C'ttee (1999)
Olive Pink Botanic Garden, NT (1998)
Pangarinda Arboretum, SA (1999)
Royal Aust Institute of Parks & Recreation (1998)
Royal Geographical Society of Qld (1999)
Royal Zoological Society of SA (1998)
SGAP Blue Mtns Group, NSW (1999)
SGAP — Canberra Region Inc. (1999)
SGAP — Dryandra Study Group (1999)
SGAP — Far Nth Coast Gp, NSW (1998)
SGAP — Ipswich Branch, Qld (1999)
SGAP — North Shore, NSW (1998)
SGAP — Northern Group, Tas (1999)
SGAP — North West, Tas (1998)
SGAP — Queensland Region (1999)
Stony Range Flora Reserve, NSW (1998)
Tasmanian Arboretum Inc. (1999)
Trust for Nature (Victoria) (1999)
Understorey Network, Tasmania (1997)
Wallum Action Group, Qld (1997)
Wildflower Society of WA (1999)
Wildflower Society of WA, Nth Suburbs (2000)
Wildlife Preservation Society of Australia, NSW (1998)
World Wide Fund for Nature Australia (1999)

Individual Members

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Dr David Aldous, Vic (1998)
Diane Allen, Qld (1999)
Jan Allen, NSW (1999)
Ian Anderson, ACT (1999)
Benjamin Armstrong, NSW (1999)
Richard Arnett, NSW (1998)
N. Ashworth, Qld (1999)
Margaret Bailey, NSW (1999)
Greg Bain, Vic (1998)
Bee & Bill Barker, Vic (1998)
Tim Barlow, Vic (1999)

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 Douglas Beckers, NSW (1998)
 Brett Beecham, WA (1998)
 Margaret Bell, NSW (1998)
 Stephen Bell, NSW (1999)
 John Benson, NSW (1999)
 Jocelyn Bishop, NSW (1998)
 Robert Blackall, NSW (1998)
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 Dr Barbara Briggs, NSW (1998)
 Dr AHD Brown, ACT (1999)
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 Dr G Burrows, NSW (1999)
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 Calder Chaffey, NSW (2000)
 Irene Champion, Qld (1999)
 Anne Coates, WA (1999)
 Fiona Coates, Vic (1998)
 Anne Cochrane, WA (1999)
 Daniel Cole, NSW (1998)
 Ian Cole, NSW (1999)
 Ben Correy, NSW (1998)
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 Jennifer Cowie, NSW (1997)
 Ian Cox, NSW (1999)
 Isobel Crawford, ACT (1999)
 Simon Cropper, Vic (1998)
 P. Cruickshank, NSW (1997)
 Louise Cusack, NSW (1997)
 Paul Davies, NSW (1999)
 Richard Davies, SA (1997)
 Claire De Lacey, NSW (1999)
 John Delpratt, Vic (1999)
 Ian Denley, Qld (1998)
 Michael Doherty, ACT (1999)
 Ross Doig, NSW (1999)
 Wendy Dossetor, ACT (1999)
 Steve Douglas, NSW (1998)
 Helen Drewe, NSW (1999)
 David Duncan, Vic (1999)
 David Eddy, ACT (1999)
 Rodger Elliot, Vic (1999)
 Alison Elvin, ACT (1999)
 Elizabeth Fenton, Vic (1997)
 Paul Field, Vic (1998)
 Donna Fitton, NSW (1998)
 Lance FitzGerald, NSW (1998)
 Paul Foreman, Vic (1998)
 Julie Foster, ACT (1997)
 Ian Fox, Qld (1999)
 Sharyn French, Qld (1999)
 Bill Gale, WA (1999)
 Elizabeth George, WA (1999)
 Kaye Glennon, WA (1999)
 Roger Good, ACT (1999)
 Dave Gordon, Qld (1999)
 Dr Janet Gorst, Qld (1999)
 Robert Gourlay, ACT (1999)
 William Grattan, NSW (1998)
 Sandra Griffith, Qld (1998)
 Wayne Griggs, Tas (1999)
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 Gwen Harden, NSW (1998)
 Katherine Harrington, ACT (1999)
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 Janelle Hatherly, NSW (1999)
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 Dr Helen Hewson, NSW (1998)
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 Elsie Howe, NSW (1998)
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 Peter Lawrence, Qld (1999)
 Gary Leonard, NSW (1998)
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 Tony Lewis, NSW (1999)
 Gordon Limburg, NSW (2001)
 Gregory Little, NSW (1999)
 Vicki Long, WA (1999)
 Amanda McDonald, NSW (1999)
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 Gillian McDonald, NSW (1999)
 Tein McDonald, NSW (1998)
 Lori McGarva, NSW (1997)
 Alex Mackenzie, NSW (1998)
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 Bob Makinson, ACT (1999)
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 Tammy Mills-Thom, NSW (1998)
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 Judith Moffat, Qld (1999)
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 Judith Moore, Vic (1999)
 Rosalind Moore, NSW (1998)
 Stephen Mueck, Vic (1999)
 Lorna Murray, Qld (1999)
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 Travis Peake, NSW (1998)
 Judy Peet, NSW (1997)
 Ian Perkins, NSW (1999)
 J Playford, Qld (1999)
 Robert Porter, NSW (1999)
 Brian Quinn, Vic (1998)
 Peter Ray, WA (1998)
 Ruth Readford, NSW (1998)
 Phil Redpath, NSW (1999)
 Bonni Reichelt, Qld (1999)
 Mark Richardson, NT Hon. Life Member
 Lill Roberts, Vic (1999)
 Geoffrey Robertson, NSW (1999)
 Robert & Debra Robertson, ACT (1998)
 Mark Robinson, NSW (2000)
 Steve Row, NSW (1998)
 Esma Salkin, Vic (1999)

Dr. Alison Shapcott, Qld (1998)
 Darren Shelly, NSW (1999)
 Nicholas Skelton, NSW (1999)
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 Diana Snape, Vic (1999)
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 Herbert Staubmann, Tas (1999)
 Debbie Stevenson, NSW (1998)
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 Jonathan Streat, NSW (1997)
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 Nicki Taws, ACT (1999)
 Elaine Thomas, Vic (1999)
 Craig Thompson, NSW (1999)
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 Bindi Vanzella, NSW (1998)
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 Geoff Winning, NSW (1998)
 John Wrigley, NSW (1999)
 Martin Zierholtz, NSW (1997)
 Toive Zoete, NSW (1999)

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