

AUSTRALIAN NATIVE PLANTS SOCIETY

*CANBERRA REGION (INC)*



Journal Vol. 17 No. 2

ISSN 1447-1507

June 2012

Print Post Approved PP299436/00143

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Cover: *Podolepis jaceoides* 'unfurling' and *Leucochrysum albicans* ssp. *alpinum*, photographed on the Mt Franklin walk by Janelle Chalker

### Journal articles

The Journal is a forum for the exchange of members' and others' views and experiences of gardening with, propagating and conserving Australian plants.

All contributions, however short, are welcome.

Contributions may be typed or handwritten, and accompanied by photographs and drawings.

Submit photographs as either electronic files, such as JPGs, or prints. Please enclose a stamped, self-addressed envelope if you would like your prints returned. If possible set your digital camera to take high resolution photos. If photos cannot be emailed, make a CD and send it by post. If you have any queries please contact the editor

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The deadline dates for submissions are 1 February (March), 1 May (June), 1 August (September) and 1 November (December). Send articles or photos to:

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Paid advertising is available in this Journal. Details from the Editor.

Society website: <http://nativeplants-canberra.asn.au>

Printed by Elect Printing, Fyshwick, ACT  
<http://www.electprinting.com.au/>

## Canberra Region Report March 2012

### 1. Propagation

We have a very active and productive propagation group that produces about 2356 of the plants sold at our twice yearly sales. Cuttings are collected from member's gardens and other sources and represent a large variety of plant material not normally available in commercial nurseries. We have 3 shadehouse facilities and 3 hotbeds that are soon to be updated and improved. In addition, we have a trial program where plants, new to the ACT, are propagated and then given to members to trial in their gardens. Every six months, members report on the progress or death of their trial plants. In this way, we can ensure that plants we sell have a good chance of success. A crucial part of the propagation effort is the maintenance of a database. It contains short descriptions of almost 2,388 plants and cultivars that are known to grow in the region. This database is updated with new plants and descriptions as needed. Plant labels are printed from this database and are used on all plants at our sales. This database will provide the basis of plant descriptions in the new edition of our book.

### 2. Plant Sales

We have two plant sales per year and the most recent was 17 March.

We started with about 10,000 plants on the ground at the parking lots of the Australian National Botanic Gardens. These plant sales are becoming more important as a source of native plants in the Canberra Region because the variety of native plants that nurseries are selling is decreasing. Often the only hope of buying certain taxa of plants is our sale. As Myrtle Rust spreads and more restrictions are placed on plant movements, it is going to be even more difficult to find many species of native plants. Even though most of the plants we sell are grown in the local region which is currently free of Myrtle Rust, all myrtaceous plants at our sale are examined on arrival by an expert from NSW who is brought in by the ANBG. This inspection serves to protect the ANBG from possible infection and also protects the public from buying infected plants.

### 3. New Edition of Book

Australian Plants for Canberra Region Gardens was first produced in 1973 and has been revised four times with the latest being 2001. A committee is working hard to produce a new book with colour pictures to illustrate the text. The committee is consulting with members on which plants are to be included in the book.

#### 4. Wednesday Walks

Every week a group of members go to an region of interest in the ACT or surrounding region to spend the day walking and looking at plants. Many of the members are expert at identifying the plants and generate a list of plants that they see in each area. They have been going on these walks for over 20 years and have generated a large amount of data of what plants are seen where. Often walks are to the same region but several years apart and it is interesting to see the changes in vegetation that have occurred. We are currently in the process of considering how to centralize this data to make sure that it isn't lost and that it can be used by others.

#### 5. Weed Swap

Two weeks after our sales, a dedicated group of ANPS volunteers spends the weekend at the north and south Green Waste Recycling Centres distributing native plants to those who bring in local environmental woody weeds for composting. Colour brochures produced by the ACT Government of local environmental woody weeds are handed out to all who are interested. This program is funded by the ACT government which pays for about 2,000 plants grown by our members that are distributed free over the course of the weekend. The managers of the Recycling Centres report that activity is increased by about 25% on

those weekends when Weed Swap is present. The goal is make people aware of environmental weeds and to plant natives instead.

#### 6. Field Trips

Each month ANPS Canberra Region organizes field trips that usually occur on a weekend and go to more remote areas than the Wednesday Walks can do in one day. The trips are announced at least a month in advance in our monthly bulletin and in the most recent issue, a list of proposed trips for the year is presented. A number of these trips go to areas well outside the ACT and involve participants and guides who are not part of our region. We are in the process of formalizing arrangements with adjacent regions to cosponsor trips so that members of different groups can go and be covered by insurance of that group. This cooperation will enhance the experience for all and break down the artificial distinctions between different regional societies.

#### 7. Monthly Members Meetings

In the evening of the second Thursday of each month except January, we have a members meeting with a formal speaker. Attendance is normally between 50 and 70 members and there is an extensive range of books for sale as well as plants. Member growers donate plants that are raffled to members. The proceeds plus extra funds are donated to organizations such as the Euro-

bodalla Botanic Gardens, the Southern Tablelands Ecosystem Program and the ANBG.

#### 8. Daytime Activity

A number of years ago, some members started what were called daytime meetings so that people who were not able to come to evening meetings could participate and feel part of the Society. As these were not real meetings in the sense of speakers etc, it was recently decided to call them daytime activities. Usually these involve visiting a garden or a revegetated area.

#### 9. Garden Design Study Group

Canberra is one of three regions that has a branch of the Garden Design Study Group. There are about 10 members and the aim is to have about 4 events each year. Often these events involve a visit to a garden and are coupled with the Daytime Activity. A report of the visit is prepared by the leader, Ros Walcott, and published in the Newsletter of the GD SG.

#### 10. Relations with the Australian National Botanic Gardens

Over the past few years, the ANBG has been in the process of developing a Plan of Management for the next 10 years. ANPS Canberra Region was active in the consultations that lead to the development of the plan and has responded to various issues in the Draft that has been produced for comment. Representatives from our Council meet on occasion with the Management of the ANBG to discuss issues and work out how we can be helpful. For example, we have agreed to provide \$2,000 next year to fund signage within the gardens. We have suggested that the ANBG could use the expert knowledge of the Friends Guides to develop the text which should educate the public about the interesting features of some of the plants. This donation has been accepted by the ANBG with enthusiasm but the details remain to be worked out.

Submitted by Ben Walcott  
March 2012



Wednesday walkers on the Tinderry Grassland, Roger Farrow



# Response to the Draft Management Plan 2011-2021 of the Australian National Botanic Garden

The Australian Native Plants Society of Canberra Region has as the first three goals in its constitution the following objectives:

- To provide a forum for the discussion and exchange of ideas on the horticulture of Australian native plants including their cultivated varieties.
- To improve Australian native plants as garden subjects.
- To promote the conservation of Australian plants and their habitats.

These objectives overlap significantly with those of the ANBG as expressed in the draft Management Plan 2011-2021 and so we support the Plan with enthusiasm. However, we do have the following comments that we feel are very important and that are not well addressed in the Plan.

## **The establishment of an Advisory Committee/Council**

The establishment of such a group should be one of the first priorities in the coming year. Such a Committee/Council of experts from around the country would provide advice on setting of priorities within the Plan and give the Gardens a platform for raising funds. At present, the

only mention of establishing such a Committee/Council is on page 115 where the 10 year goal is to 'investigate models' for its creation, hardly a strong commitment. Such a group which could oversee the management of philanthropic funds would assist the ANBG in getting such funds in spite of being part of a government department.

## **Stakeholders**

In the Draft Plan, Section 4 addresses the issue of 'engaging communities' but it seems to be focused on casual garden visitors rather than interested groups. This is fine as far as it goes but there are organizations that also could be involved. ANPS Canberra Region and all the other organizations across the country under the Australian Native Plants Society (Australia) umbrella are very supportive of the ANBG and its goals yet no mention is made of them or any indications of how they could assist the ANBG in its missions. Other organizations such as the Orchid Society of Canberra, Canberra Ornithologists Group and Friends of Grasslands have many members who are passionate about the Gardens. To acknowledge that these organizations exist and could be useful would add support to the

Gardens. For example, volunteers from the Orchid Society of Canberra display the flowering plants of the ANBG orchid collection in the Visitors Centre and Display Glasshouse, yet their contribution seems to be buried in the general issues relating to volunteers and National Park Volunteer Policy.

## **Plant maintenance**

While there are a number of references to 'best horticultural practices'

in the Plan, there seems to be little emphasis on making the ANBG more of a garden. There appears to be little emphasis on pruning existing plants, for example, and planning for plant successions except for trees. We believe that the ANBG is a garden and as such plant maintenance should be of a high standard.

Submitted by Ben Walcott

# Highlights from Study Group Newsletters Received March 2012

## **by Shirley Daniels, Study Group Liaison Officer, ANPS Canberra Region**

Joining study groups is a great way of sharing information from all over Australia derived from members' experiences in growing and carefully observing plants, participating in field trips and accessing the latest research in their areas of interest.

The Acacia Study Group has an article indicating that wattles are *not* considered a cause of allergic rhinitis. Further information is available [www.aihw.gov.au](http://www.aihw.gov.au) This ties in with the results of a survey conducted by them at the ANPSA Biennial Conference in Adelaide. A question about the availability of wattle varieties at local nurseries

indicated that few was available.

The name 'Acacia' continues to be an issue and is being challenged by two African botanists. This will be brought up at the International Botanical Congress in China in 2017. Further information is available [www.worldwidewattle.com/infogallery/nameissue](http://www.worldwidewattle.com/infogallery/nameissue).

The Eucalyptus Study Group has articles on the suitability of eucalyptus wood for bridge building and its use in biofuel production. There is also an article explaining the use of the pedicel and peduncle to distinguish *E. rhodantha* from *E. macrocarpa*.

The Grevillea Study Group reported that a new grevillea has been discovered in the Great Victoria

Desert. The species *Grevillea illkurlka* ms was collected as part of a survey in the Illkurlka area, a relatively unknown region about 150 kilometres west of the WA border. The survey was carried out by DEC and the Spinifex People, in partnership with the WA Museum, Adelaide Zoo and Museum Victoria.'

Peter Olde has alerted the study group to a ban on the importation of the genus *Grevillea* to the US due to serious problems with insects in the *Anoplophora* genus. The pest is not known to be present in Australia but *Grevillea* is one of the plants known to be attacked by it.

A number of members of the Correa Study Group have reported substantial losses of plants and there is considerable reflection on

causes including weather and/or pathogens.

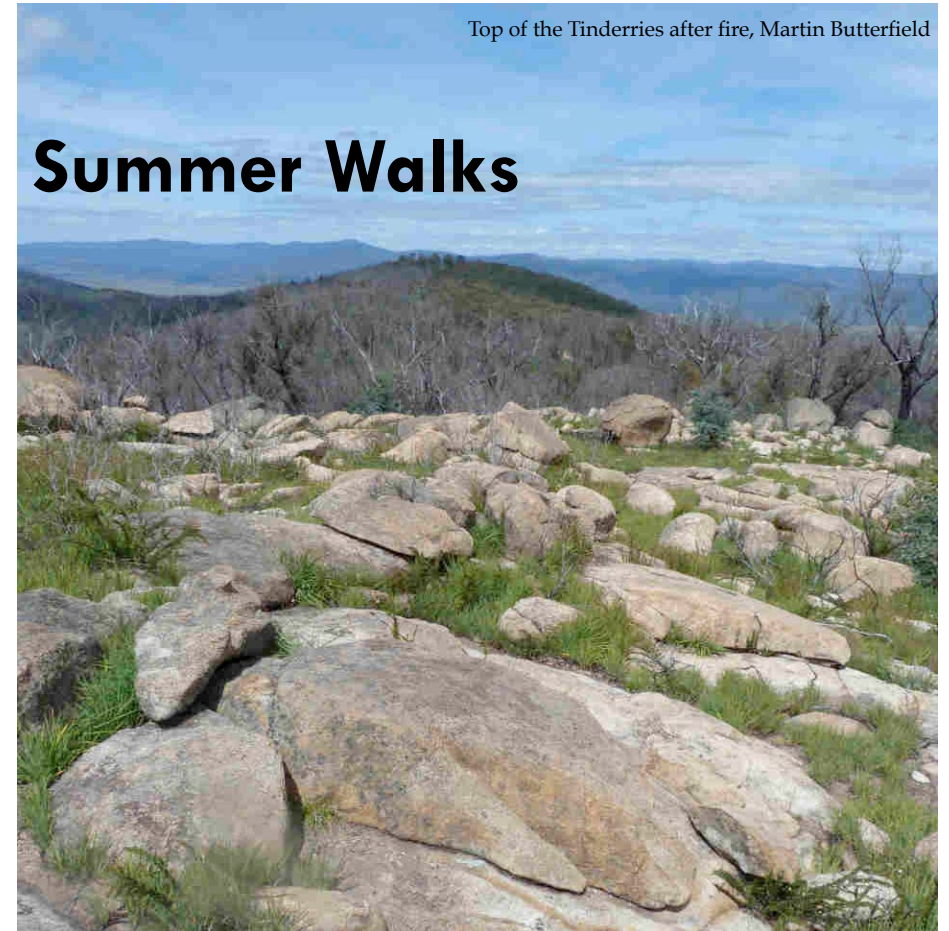
The Fern Study Group reported on an excursion to the granite belt area of south-east QLD and north-east NSW in October 2011. As well as the many species of ferns sighted, there were lots of flowers, including orchids.

The Hakea Study Group suggests that the Pangarinda Arboretum is worth a visit if you are travelling between Melbourne and Adelaide. It is at Wellington East, a 10 km detour from the highway. The Isopogons & Petrophiles Study Group reports that 2 new species and 2 new subspecies of *Isopogon* from WA have now been described.

Want to know more and share what you know? Join a study group.



*Hypoxis hygrometrica*, Boboyan Loop walk, Roger Farrow



The Wednesday Walkers roamed widely during the 2011-12 summer. We only had to postpone one walk and that was because of torrential rain rather than it being too hot. The relatively mild, wet summer provided some good displays of flowers in some of our favourite haunts.

### **The Tinderries**

In early December, we made a return visit to the Tinderry Mountains south

of Canberra and east of Michelago. A large fire went through the area in December 2010 and we were keen to see the regeneration. The approach from Michelago takes us through some excellent grassland and we always stop, mainly to check on a special plant - *Dodonaea procumbens*. It is rated as vulnerable under both the NSW Threatened Species Conservation Act and the Commonwealth Environment Protection and



Biodiversity Conservation Act, mainly due to habitat destruction and weed invasion. We were pleased to find many of the plants carrying seed. Lots of grasses were flowering and there was some colour from *Convolvulus erubescens*, *Chrysocephalum apiculatum*, *Leucochrysum albicans* var. *tricolor*, *Goodenia pinnatifida*, *Swainsona sericea* and *Eryngium ovatum*. We continued on and stopped part way up the climb to look at a good display of *Astrotricha ledifolia*, *Ajuga australis*, *Veronica perfoliata*, colourful *Dodonaea viscosa* seed pods and *Pelargonium australe*. At the top of the range we split into 2 groups - one to tackle the big boulders on the northern side of the road and the other group explored the area south. Both had good views and a wealth of plants. On the northern side we were pleased to find some slightly out of the ordinary plants regenerating - *Grevillea oxyantha* ssp. *oxyantha*, *Prostanthera phyllicifolia* (some flowering), *Phebalium squamulosum* ssp. *ozothamnoides*, *Olearia iodochroa* and *Platysace lanceolata*, along with excellent displays of flowers on *Lomandra longifolia* (and a heady perfume), *Stylidium graminifolium*, *Hibbertia obtusifolia*, *Stellaria pungens*, *Pratia pedunculata*, *Olearia erubescens* and some large *Microseris lanceolata*, many *Thelionema caespitosa* and the last



*Dodonaea procumbens* seed, Tinderries trip, Roger Farrow



*Lomandra longifolia*, Tinderries trip, Martin Butterfield



*Lomandra multiflora*, Tinderries trip, Martin Butterfield

few *Stegostyla moschata*. On the southern side, *Boronia algida* was flowering well and the *Philotheca myoporoides* was coming back. In the car park there was a lot of *Gompholobium huegelii* in full flower and carpets of seedlings of *Acacia costiniana* and *Oxylobium ellipticum*. We continued on to the dampish area, where the meteorological station is, for lunch and also saw a good display there - *Calotis scabiosifolia* var. *integrifolia*, *Diuris monticola*, *Brachyscome scapigera*, *Craspedia variabilis*, *Ajuga australis*, *Stylidium graminifolium*, *Hibbertia obtusifolia*, *Linum marginale* and some interesting plantagos (*Plantago antarctica* was one of them). We continued down the



*Astrotricha ledifolia*, Tinderries trip, Roger Farrow



eastern side of the range to the Round Flat Trail, eager to check on what we call the 'Mystery Pea' (see the article by Jo Walker and Roger Farrow in Journal Vol. 15 No. 9, March 2009). We had found it some years ago and couldn't put a name to it. It is a large bush over 2m tall, with leaves and flowers similar to *Podolobium alpestre*. On the way to it, many things were flowering including *Thysanotus tuberosus*, *Wahlenbergia stricta*, *Pultenaea subspicata*, *Ozothamnus thyrsoides*, *Podolobium alpestre*, some very tall *Diuris sulphurea* with up to 7 large flowers per stem, *Gastrodia sesamoides*, *Hibbertia obtusifolia*, masses of *Ajuga australis* and *Pratia pedunculata* (white and blue). There was a small river running through the area where we'd previously found the Mystery Pea but we managed to get through and found the it flowering. It has survived the drought, a tree falling on it and now the fire. Also in this area we were surprised to find a *Grevillea oxyantha* ssp. *oxyantha* and some *Thelionema caespitosa* - we're only used to seeing them high up in the granite boulders. We also saw *Trachymene composita* - a plant we rarely see. A very rewarding day.

### Mt Franklin

Mt Franklin is in the Brindabella Mountains, west of Canberra. Many years ago there was a ski lodge there (burnt in the 2003 fire) and

ski runs. Our previous visit was exactly 6 years ago on 14 December 2005 - the first post-fire visit. We were interested to see any changes. We walked slowly up the main old ski run - a gradual climb with *Eucalyptus pauciflora* woodland on either side of the cleared run. There were many plants flowering and giving mass displays in some cases. There were still some peas out - *Podolobium alpestre*, *Daviesia ulicifolia* and just a few *Oxylobium ellipticum*. Many of the *Bossiaea foliosa* were covered in ripening seed pods. There were good displays of *Tetratheca bauerifolia*, *Grevillea lanigera*, *Pimelea glauca* (even some pink ones), *P. ligustrina*, *Podolepis jaceoides*, *Leucochrysum albicans* ssp. *alpinum* (masses), *Senecio pinnatifolius*, *Brachyscome diversifolia*, *B. spathulata*, *Euphrasia collina*, *Olearia erubescens*, *Craspedia variabilis*, *Erigeron bellidioides* and there were a few *Rhodanthe anthemoides* as well as *Hymenochilus crassicularis*, *Diuris monticola*, *Linum marginale*, *Brachyscome decipiens*, *Microseris lanceolata*, *Tasmania lanceolata* and *Coprosma hirtella* flowering. We added a few extra species to our 2005 post-fire list which have seemingly taken a bit longer to reappear - *Persoonia chamaepeuce*, *P. rigida*, *Tasmania lanceolata* and *Brachyscome diversifolia*. We had lunch at the top surrounded by flowers and fantastic views.



Mystery pea, Tinderries trip, Roger Farrow



*Pimelea ligustrina*, Mt Franklin, Roger Farrow



*Dianella tasmanica*, Mt Franklin, Roger Farrow

### Boboyan Loop

This was our first walk for 2012 and one we hadn't done for a while. It starts from the Yankee Hat car park in Namadgi National Park and is initially on the Old Boboyan Road before turning east past some granite outcrops and a swampy area then returning on a fire trail. It was disappointing to find many weeds encroaching on what used to be high quality bushland. However, we saw some good plants and some flowers. The trees were lovely as

always and we saw large areas of *Chrysocephalum semipapposum* flowering, many *Cullen microcephalum*, *Hibbertia obtusifolia*, *Pimelea curviflora* (including an orange one), *Hypoxis hygrometrica*, *Gompholobium huegelii*, *Lotus australis*, *Stylidium graminifolium*, *Helichrysum rutidolepis*, *Baeckea gunniana*, *Leptospermum myrtifolium*, the last of the *Epacris breviflora*, one *Ozothamnus stirlingii*, some very floriferous *Kunzea ericoides* and some spectacular *Poa sieberiana* var. *hirtella*. We added a considerable number of species to our post-fire list. Most of us were caught in a sudden downpour as we finished the walk, but it was worth it.

### Bendora Dam

Bendora Dam Road starts near Bulls Head in the Brindabella Ranges and winds its way down to the Cotter River and Bendora Dam. As we descended from Bulls

Head we saw lots of *Ozothamnus stirlingii* flowering as well as *Senecio linearifolius*. We stopped at the intersection of Warks Road and Bendora Dam Road for morning tea and saw many *Stylidium armeria* still with some flowers, *Astrotricha ledifolia* forming fruit and some lovely, weeping *Leptospermum brevipes*. We spotted some *Dipodium roseum*, *Platysace lanceolata* and *Pimelea treyvaudii* flowering as we continued on to Bendora Dam. We did a loop walk in rather hot conditions but saw lots of interesting plants and some new ones for our list - *Grevillea oxyantha* ssp. *oxyantha* (with some flowers), *G. lanigera*, *Prostanthera lasianthos*, *Acacia pravissima*, *Astrotricha ledifolia*, *Dillwynia phyllicoides* (a few flowers), *Hibbertia calycina*, *Acrotriche divaricata*, *Leionema lamprophyllum*, *Banksia marginata* and *Hovea asperifolia*. We also found four pomaderris species - *P. aspera*,



*Hypericum gramineum*, Boboyan Loop, Martin Butterfield

*P. angustifolia*, *P. eriocephala* and a mystery one (lots) which will need further work and another visit.

### Mt Bollard

The track to Mt Bollard runs off Wild Cattle Flat Road in Tallaganda National Park, east of Canberra and Queanbeyan. It is an easy walk on a fire trail for about 1.5km then there is a very steep ascent to the top of Mt Bollard. The walk starts in *Eucalyptus dives* forest with an understory of mainly *Daviesia mimosoides* with *Persoonia chamaepeuce*, *P. silvatica*, *Comesperma ericinum* (flowering), *Choretum pauciflorum* and *Bossiaea foliosa*. We found some interesting orchids - *Chiloglottis trilabra* and *Thynninorchis huntianus* (Elbow Orchid) and later, *Diplodium decurvum*. We had lunch at the base of Mt Bollard among some very tall *Eucalyptus fastigata*, *E. radiata* and *E. dalrympleana*. Quite a few fit, adventurous people then climbed to the top and found a few new plants including *Platysace lanceolata*, flowering, and more *C. trilabra*, not to mention a copper head snake. The rest of us explored the flatter area and found many greenhoods - *Diplodium decurvum* - as well as some *Wahlenbergia stricta* (very large flowers), *Lagenophora stipitata*, *Helichrysum rutidolepis*, *Veronica calycina* all flowering and *Coprosma quadrifida*, *Glycine clandestina*,

*Ranunculus lappaceus* and some lovely grasses.

### Tinderry Nature Reserve

At the beginning of February, we had a short walk in the Tinderry Nature Reserve about 8km south of Burra. We had explored this area several times many years ago. It is heavily wooded with some very old trees, many of which show signs of damage from strong winds and perhaps lightning strikes - *Eucalyptus rubida*, *E. macrorhyncha*, *E. rossii* and *E. dives*. There were a number of shrubs including a few with flowers - *Dillwynia sericea*, *D. phyllicoides*, *Comesperma ericinum*, *Persoonia rigida*. The main grass was *Joycea pallida* with very tall flowerheads. A highlight was a big patch (17 plants) of hyacinth orchids - *Dipodium roseum*. There were some single ones scattered around as well. We plan to return at a future date to renew our acquaintance and explore more fully.

### Nerriga Private Property

Also in February, we visited a private property off Meangora Road which runs off Endrick River Road just south of Nerriga. The drive in was tantalizing with several vegetation types including tall forest of *Eucalyptus sieberi* and a swampy area. Many of the plants we encountered were new to us and a lot of homework was done later to identify them. We





*Dipodium roseum*, Tinderry Nature Reserve,  
Martin Butterfield



*Dillwynia phyllicoides*, Tinderry Nature Reserve,  
Martin Butterfield



*Comesperma ericinum*, Tinderry Nature Reserve,  
Roger Farrow



*Calotis scabiosifolia* var. *integrifolia*, Booroomba  
Rocks car park to Honeysuckle Creek camp-  
ground, Graeme Kruse

started off in a forested area which included *Eucalyptus radiata*, *E. dives* and a scribbly gum which we didn't identify. The understory was fairly dense with a variety of species including *Leptomeria acida*, *Persoonia mollis* ssp. ? *livens*, *P. microphylla*, *Boronia algida*, *Banksia spinulosa*, *Patersonia longifolia*, *P. sericea*, *Acacia* ? *amoena*, *A. terminalis*, *Laxmannia gracilis*, *Mitrasacme polymorpha*, *Lomandra longifolia* and many others. Then on to a swampy area with *Eucalyptus ovata* around the edge as well as some *Leptospermum morrisonii*, *L. juniperinum*, *Baekkea utilis*, *Epacris microphylla* and many *Spiranthes australis*, including a white form. After lunch we took a route on a fire trail to the edge of Morton National Park and saw among other things, *E. moorei*, *Allocasuarina nana*, *Phyllota phyllicoides*, *Chloanthes parviflora*, *Persoonia laurina*, *P. lanceolata*, *Comesperma sphaerocarpum* and the unusual grass, *Anisopogon avenaceus*.

#### Mount Ainslie-Mt Majura Saddle

We often walk on Mt Ainslie and Mt Majura but this time, decided to tackle the saddle in between. We started from Kellaway Street, Hackett, and followed the equestrian trail before turning left to climb to the ridge where we had wonderful views on both sides. Although weedy along the ridge, there were some lovely old trees,

some in full flower – *Eucalyptus melliodora*. We turned left at the water tank and went to the two dams before returning on a narrow track between the powerlines and the houses. Many *Acacia implexa* were in flower as well as a few *A. parramattensis*, *Erodium crinitum*, *Chrysocephalum semipapposum* (swathes of it), *C. apiculatum*, *Cassinia quinquefaria* (just starting to flower), *C. longifolia*, *C. hewsoniae* (just finishing), *Calocephalus citreus* and *Amyema miquelii*.

#### Booroomba Rocks Car Park to Honeysuckle Creek Campground

This has become a favourite walk, always with plenty to see. We repeated it towards the end of February and were not disappointed. It is about 4km long and mostly downhill – we leave cars at both ends. The narrow track meanders through regenerating woodland mainly, dominated by *Eucalyptus viminalis*, *E. radiata*, *E. dalrympleana* and *E. dives*. The regrowth from the 2003 bushfire is very thick making off-track exploration fairly difficult. We saw good displays of *Calotis scabiosifolia* var. *integrifolia*, *Brachyscome spathulata*, *Helichrysum rutidolepis*, *Persoonia chamaepeuce*, *Glycine clandestina*, *Podolepis hieracioides*, *Lotus australis*, *Olearia tenuifolia*, *Ozothamnus stirlingii* (just finishing) and the more unusual *Olearia ramulosa* var. *stricta* and *O.*





Above right: *Persoonia silvatica*, Mt Bollard, Martin Butterfield;

Above: *Persoonia mollis*, Nerriga Private Property, Roger Farrow;

Left: *Persoonia lanceolata*, Nerriga Private Property, Roger Farrow;

Below left: *Persoonia microphylla*, Nerriga Private Property, Roger Farrow;

Below: *Persoonia chamaepeuce*, Booroomba Rocks car park to Honeysuckle Creek campground, Graeme Kruse



*glandulosa* - both flowering well - and a couple of *Lobelia dentata*. We saw a few orchids - *Diplodium decurvum* (lots of patches), one clump of three *D. coccinium* (new to our list), some *Eriochilus cucullatus* and a few *Dipodium roseum* just finishing. There were also some *Coprosma hirtella* with red berries. The last part of the walk had a soundtrack of thunder but we managed to finish just before the heavens opened.

You can read a short description of our various walks, look at the list of plants we found (and often, the birds we spotted) and see some photos in the Wednesday Walks section of the ANPS website - <http://nativeplants-canberra.asn.au>



*Banksia marginata*, Booroomba Rocks to Honeysuckle Creek campground walk, Graeme Kruse



*Bursaria spinosa*, Booroomba Rocks car park to Honeysuckle Creek campground walk, Graeme Kruse



# Roo-proof native gardening

by Mark Sheahan  
Bungendore NSW

When I bought my block on top of the Lake George escarpment near Bungendore in 2007, a friend said 'You'll never grow a garden here!' He had a point – too cold, too hot, too windy, too dry ... and then there's that 'Bywong clay'!

Determined to prove the doubters wrong, I carefully constructed my garden beds ... half river sand, and the rest a mix of bought 'topsoil', the local clay, and secret ingredient: coco-peat. I planted over a hundred 'boutique' native plants (sourced mainly from Park Lane Nursery back in Wangaratta) and over their first summer, they thrived.

Satisfied, I went away for a month in April/May, and came back to find they'd all been eaten down, or out. I had lost probably half of them. A third still had some green foliage surviving at their base, and the rest were (remarkably I thought) untouched.

I've never seen as many kangaroos in any rural area as exist in these parts. They love the Canberra hobby-farm landscape, obviously, with its pastures un-pressured by commercial flocks, a dam on every 5 acre block and landowners who

not only don't shoot them, but some who even buy hay for these, the most drought-resilient of animals.

And its these animals that pose the greatest challenge to the gardener. The trials and errors of the past five years have taught me some strategies that have helped overcome the frustration of that first Autumn, and grow a garden in this environment so heavily populated with kangaroos.

1. Don't plant lawn. I like the small area of buffalo grass lawn I installed in that first summer to replace the sea of pavers I inherited. It's not invasive, and will survive the droughts and frosts of these parts. But its a mecca for roos. It brings them right into the garden, and once there, they can't resist the other tasty treats on offer. I don't regret the lawn, but it means more reliance on the other strategies below.

2. It doesn't matter how spiky it is. Plants with the spikiest, thorniest foliage may still be palatable to 'roos.

3. Rely mainly on 'unpalatable' plants. There are some genera of native plants that are, generally, unpalatable to 'roos. These include:

- Plants with oily or fragrant foliage.
- Plants with high oil content

(including some which have fragrant foliage) include species of *Eremophila*, *Prostanthera*, *Westringia*, *Eriostemon*, and *Myoporum* appear almost totally unpalatable to 'roos. Little wonder some of these have become the 'woody weeds' of our rangelands. Other 'woody weed' genera will also likely be left untouched by 'roos.

- Plants with hairy or sticky leaves. There's a million words in the botanical dictionary for 'hairy', and if a plant's foliage is one of these (particularly if its 'glaucous') it may be unpalatable. Examples include *Ptilotus*, *Chrysocephalum*, *Lysiosepalum* and *Xerochrysum*. Genera which are, as a rule, palatable, may have species which aren't, such as *Acacia howittii* or *A. verniciflua*. Also, some strappy-leaved plants, like *Lomandra* are generally left un-touched, but others (e.g. *Dianella*) seem to be more palatable.
- 'Woody' plants. Some plants (like *Callistemon*) seem to have too much cellulose (are too woody) to be palatable.

Genera with these features should make up the bulk of the plantings, particularly early on.

4. Guard everything in the first year. Young plants, and particularly those straight out of the nutrient rich potting mix of the nursery, are particularly palatable. Even

plants of genera that are generally unpalatable, should be guarded in the first year. 'Guarding' can include plastic or mesh tree guards, netting, or old chicken wire from the tip, either placed around or on top of the plants (depending on the plants form).

5. Roos hit plants hard in Winter. In Summer, there's lots of growth everywhere and the garden isn't hassled by 'roos. Guards can be removed after the last frost (i.e., mid-October) but should be re-installed around the first frost (i.e., late April). The unpalatable genera can probably remain un-guarded in their second year. In a drought year, it may be necessary for plants to be guarded all summer.

6. Some plants remain palatable, others don't. In later years, many plants may survive year round un-guarded and only be 'lightly pruned' by the marsupial herbivores. In my garden these include *Grevillea*, *Melaleuca*, *Baeckea*, *Scaevola*. Just observe and guard if necessary. Others, however, will be munched no matter how old they are. These seem to include plants in the *Papilionaceae* (pea-flowers) and *Rutaceae* (*Correa*, *Boronia*) families, among others. Sadly, there's not much point in planting these unless you're prepared to keep them guarded, particularly in Winter.

My garden is composed entirely of plants that don't grow taller than a metre ... but taller plants will of course be right once they get above browsing height.

7. Forget foliar sprays. I reckon there's a lot of rubbish spoken about the effectiveness of foliar sprays. Whatever the peddlers of these products might take out of your wallet, in my experience they won't work. Neem Oil, and other such potions recommended to me, seem to just make the

Hakea Burrendong Beauty (right) and Epacris (below) protected in cages

foliage shinier and yummiier for 'roos. They might as well recommend a spray of dishwater!

Some have suggested the use of foliar sprays used in New Zealand to deter possums, but I was told these are not registered for use in



Australia.

8. Some other peri-urban myths Other myths include the application of Blood & Bone as a deterrent, but of course, you wouldn't want to put that on your natives. Or, even (for the blokes) pissing around your garden to 'mark your territory', but first-hand experience suggests this is no deterrent at all!

9. Roos will not only eat, but trample. Roos will be oblivious to whatever paths you've made through your garden. Large 'roos can easily trample or dislodge plants from your garden. I've lost a couple of semi-advanced plants from this. Strong, high and sturdy stakes (with or without guards) around your plants may provide some protection.

10. Try a dog? Would a house-dog deter 'roos at night? I don't know ... but it might.

Despite the cold, the hot, the dry and the wind, and despite the native clay soil, I'm managing to establish a garden that is diverse and attractive, as for 6 or 7 months of the year, the unsightly guarding can be dispensed with.

And although I'm now OK with 'roos in the garden (they're certainly a highlight for visitors!), the gardener needs strategies to manage their impacts. Having achieved this, I'm now back to square one, back to the original problem ... Plants grow so damn slow in this climate!



The lawn in the garden



# What's inside a Gall

by Roger Farrow

Plant Galls come in all shapes and sizes and can be found on the leaves, stems, buds and roots of their host plants. They include distorted buds such as the red hakea gall (Fig.1), swollen stems and leaf excrescences on eucalypts (Figs 2 & 3) and witches brooms. Galls are the plant's reaction to the secretions of the invading organism which may be a fungus, nematode worm, mite or insect. The undifferentiated tissues in the gall provide food for the occupying organism which, at the same time, is protected from adversities of the external environment such as weather extremes and predators and parasites.



Figure 1 Bud Gall on *Hakea microcarpa*

On the latest field trip to the Flinders Ranges we found numerous globular galls on Mulga *Acacia aneura* (Fig 1). It can be seen from the image that they are formed from a phyllode. I had expected these to be caused by minute parasitic wasps in the family Torymiidae and would have contained wasp larvae which I have found in similar-looking galls on phyllodinous wattles in our own region (Fig 5). When the Mulga galls were sliced open we found instead a mass of tiny insects called thrips which are familiar as pests of roses



Figure 2 Eucalypt leaf galls caused by Psyllid bugs



Figure 3 Eucalypt Stem Gall caused by *Apiomorpha* bug



Figure 4 Gall on *Acacia aneura* Flinders Ranges



Figure 5 Acacia gall caused by Torymid wasp at Araluen

and other ornamentals) (Fig.6). In this image we can see nymphs and eggs of the thrips.

Thrips are a curious group of well-defined and identifiable insects with sucking mouthparts. Many species are parthenogenetic (meaning absence of males), although when present the males have enlarged forelegs used in combat. They also exhibit social behaviour and are often polymorphic, that is showing differences in morphology like wing size

More than 20 species of Thrips in the family Phlaeothripinae induce galls in Acacias and are thought to have radiated following the radiation of Acacia in Australia. The species that we found on *A. aneura* is probably *Phlaeothrips arotrum*. The colony is started by a foundress and may pass through several generations of wingless individuals before winged adults are produced (Fig 7). These eventually emerge, mate (if males are present) and disperse to found new galls. What is special about some of these species of Acacia thrips is that they have a 'soldier' class (like termites and ants), which defend the colony from invasion by other species of thrips termed kleptoparasites. If these successfully gain entry to the gall they kill the inmates and set up home and feed on the plant tissue inside the gall. The female foundresses are also known to fight one another during

the gall initiation period. Our thrips on *A. aneura* produces a gall which is tightly closed and is rarely attacked by kleptoparasitic thrips although when I saw some on the outside of galls I thought that they were checking it over (Fig 8) The galls eventually fall to the ground where they slowly dry out and eventually split open to release the mature thrips which fly away and start new colonies.

I would like to thank Laurence Mound of CSIRO Entomology for directing me to his co-written book on Acacia thrips which devotes over 300 pages to this fascinating subject.

Crespi BJ, Morris DC, Mound LA. 2004 *Evolution of Ecological and Behavioural Diversity: Australian Acacia Thrips as Model Organisms*. ABRS & ANIC, CSIRO Canberra



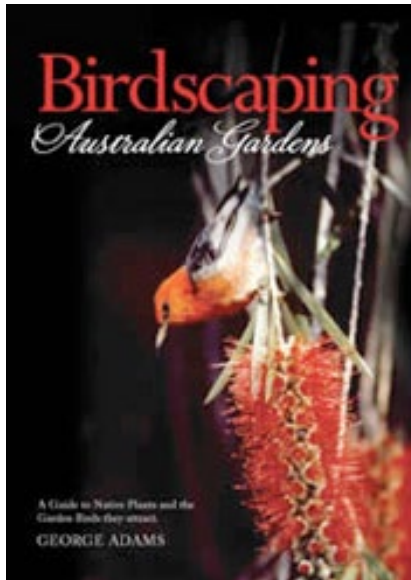
Figure 7 Some winged adult thrips



Figure 8 Possible kleptoparasitic thrips



# Book Reviews



## **Birdscaping Australian Gardens**

**A guide to native plants and the garden birds they attract**

Author: George Adams

D & G Publishing, 2011.

*Reviewed by Rosalind Walcott*

This extensive and detailed book is the result of many years of observation, experiment and documentation. George Adams published *Birdscaping Your Garden* in 1991 for Australian bird lovers, and *Birdscaping for Garden Spaces* for American audiences in 2009, so has many years of experience with birds and gardens on both continents. He is a photographer, illustrator, architect, garden designer, conservationist and devoted bird watcher.

The first thing you notice about this book is the wealth of illustration. It seems as if every important piece of information has its own relevant photo or drawing. The illustrations are not selected to be just generally applicable, but to particularly and exactly demonstrate the point in the text. Adam's fine drawings add a different dimension of detail from the photographs. The photographs themselves are stunning, of both plants and birds. When you first open the book the inside cover of *Eucalyptus caesia* and the frontispiece of an Eastern Spinebill in *Eucalyptus ficifolia* let you know that you are in capable hands. The

general page of photographs of *Grevilleas* (p.143) celebrates both the flowers and the birds drinking their nectar. The Scarlet Honeyeater feeding on the butterscotch yellow flowers of *Grevillea 'Honey Gem'* is a striking study in contrasts, p. 286.

Adams wants us to create gardens which conserve biodiversity wherever possible and attract and retain as many different species of Australian birds as we can. He points out that birds and plants have evolved together and the isolation of Australia has resulted in a particularly close interdependence between the two groups. We need to pay attention to the needs of both native plants and birds. He shows photographs of several native gardens from different areas of Australia to demonstrate the sort of gardens he is describing.

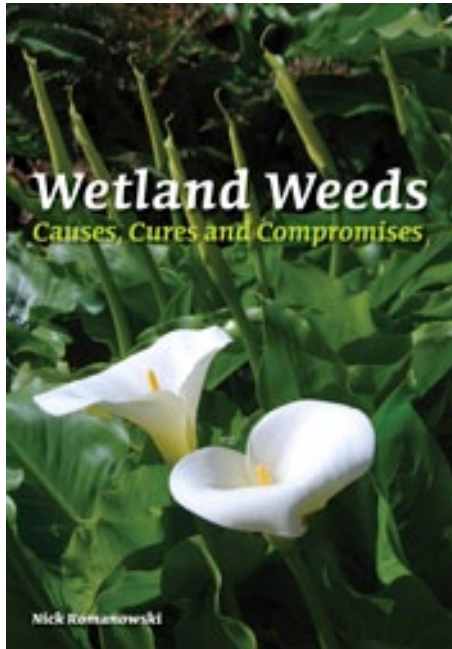
All bird attracting gardens must provide water, food and protection. Birds need safe sites to nest,

protection from enemies and places to perch. They need foods such as insects, seeds and nectar. Water must be freely available in a safe environment. Adams demonstrates in great detail how to achieve these effects in your own garden using native plants. The detail is such that you could use the book as an introductory guide to both birds and native plants. Each bird chosen receives a page of text and a photo and illustration with a short list of recommended plants to attract the species. Each plant has its own photo and a short description of how to grow this plant and its attraction for birds.

This book gives the reader excellent information on birds, native plants and gardens and the interactions among them. It is highly recommended for those wanting to see more birds in their gardens.



*Utricularia dichotoma*,  
Nerriga Private Property,  
Roger Farrow



Author: Nick Romanowski

CSIRO Publishing (2011)

184 pages ISBN: 9780643103955 - AU \$ 49.95

*Reviewed by Victoria Tanner*

The author of this comprehensive paperback full of information about both native and introduced species of wetland weeds, had an early interest and background in zoology particularly fishes, aquatic invertebrates and frogs. He later developed this interest

in to the commercial production of indigenous wetland plants and eventually opened up his own nursery. Nick Romanowski's hands-on experience and depth of knowledge of the subject matter are reflected in this, his most recent book.

The well-structured chapters are logically arranged and there is also a glossary, a section on further information sources as well as a handy index. The first chapter discusses the grey issue of exactly, what is a weed in the wetland context. It further explains the associated problems and effects of such weeds on our waterways and water sources and immediately establishes the main sources of the weeds (ornamental plants from the aquarium and water garden trade). The reader is also informed of the unpredictability of wetland weeds, a theme repeated throughout the book.

Next, the second chapter expands on the required basic knowledge of the first and explains information on the prevention, control and management of wetland weeds. Here the author emphasises the importance of education but also draws attention to the importance of initially assessing the type and level of threat caused by a particular weed. He admits that in some cases, it may not be possible to control weeds and that they may only be able to be managed and their further

spread prevented. Manual and other physical controls, reduction of light levels, chemical control and biological control including competitive planting; are all control methods discussed. Unfortunately, it is likely that a combination of methods may be required.

The third chapter is an interesting examination of native plants as weeds. The difficulty and uncertainty in classifying native plants as distinguished from introduced plants, receives attention and the author provides a number of interesting and relevant examples. This chapter ends with a 13-page compendium of 'Minor indigenous wetland weeds,' including a description of the plant, its uses, impacts and controls (unfortunately, there are only two black and white photographs included).

Chapter 4 is a 'Compendium of weeds' grouped under the categories of 'grasses,' 'sedges and rushes,' 'other wetland weeds' and 'waterlilies'. A brief discussion on algae, cyan bacteria and seaweeds completes the section. The information included on each weed is divided into paragraphs divided under the headings of a description, origin, use, preferred growing condition, confusing species, environmental effects and control and management. Unfortunately, there are only a few line drawings

and black and white photographs; however there are about 25 pages of colour photographs included in the centre of the book.

In summary the book is interesting, well written and provides a significant level and scope of information on the subject matter. It emphasises the danger of wetland weeds and the need for control over their sale and spread while admitting there may not always be solutions and certainly not simple or single solutions to wetland weeds (members will relate to many of the common issues in regards to the problem of terrestrial weeds).

The book would be of interest to anyone planning or owning a wetland such as a dam or grey water system or those involved in the rehabilitation and management of any waterway, water body or habitats including water. It would also be a valuable source of information for anyone involved in providing education in the areas of weed prevention and control and for those lobbying for greater restrictions on the commercial sale of potential weeds.



# Vale Graham McKenzie 1944-2012

by Roger Farrow

Members will be saddened to learn of the death of Graham McKenzie on March 8 after a long illness. Graham and Leslie were long time members and often participated in the field trips where I got to know him. Some members will also know him as the former headmaster of Sutton School. After retirement he continued a busy schedule helping with the Isolated Students Education which took him and Leslie to remote corners of the country.

My first encounter with Graham was a field trip to Bendethera to see the Blue Wattle (*A. covenyi*), a place he knew well from his 4WD Club days. He and Leslie were in fact the only people to turn up with their trusty Trayon on the back of their Hilux. We drove up the rugged Deua Firetrail and rounding a bend we found a huge tree fallen across the track. Graham produced a rather ancient chain saw which took a long time to start and proved no

match for the log as it was rather blunt. Undeterred he said we must construct a bridge of branches to cross the log and so we set to work. Graham drove his Hilux over the 'bridge' and we followed, not realising that the Prado wheel base was longer and the running board lower, so we sustained a large dent which remained with us for a while as a souvenir of that trip. We also had a field trip to their property on the Deua River at Myrtle Rim where our group spent several enjoyable 'happy hours' around a fire with Graham reciting the verses of Banjo Patterson and various hilarious anecdotes of their outback trips.

He had built an outdoor table at the spot which required equal numbers of people to sit each side for stability. Unfortunately, when the diners on one side of the table, including Graham, got up those on the other side, Mike Shihoff and myself, suddenly found ourselves propelled backwards, table upended, wine glasses safely in hand but bolognaise sauce airborne. Those were the days!

Besides our group Graham was involved with many other community-focussed groups and worked tirelessly to support their aims. It was a great privilege to have known Graham, a person who always 'seized the day' throughout his life, despite the adversities he faced and we extend our sincere sympathy to his wife Leslie and Family.





*Pimelea treyoaudii*, Bendora Dam walk, Roger Farrow



*Chilolottis trilabra*, Mt Bollard walk, Martin Butterfield

## Australian Native Plants Society, Canberra Region Inc.

The aims of the Society are to foster the recognition, conservation, and cultivation of Australian native plants.

Meetings are held at 8.00pm on the second Thursday of each month, February to December, in Canberra. Visitors are always welcome.

Day and weekend field trips to locations of outstanding botanical interest are organised on a regular basis.

The Society publishes a Bulletin in all months except January, and this quarterly Journal in March, June, September and December.

### Membership Fees

Annual membership including Bulletin and Journal – \$35 (\$20\*)

Annual membership including Bulletin and Journal and Australian Plants – \$47 (\$32\*)

\* Concessional rates apply to pensioners, full-time students and the unemployed.

Website : [nativeplants-canberra.asn.au](http://nativeplants-canberra.asn.au)

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**Back cover:** *Spiranthes australis*, Nerriga Private Property Photo by Roger Farrow



