

OBJECT: To foster an interest in nature

April 2015
ISSN: 1836-2761



GPO BOX 249
CANBERRA ACT 2601

FIELD NATURALISTS' ASSOCIATION OF CANBERRA INC.

FIELD NATURALISTS' ASSOCIATION OF CANBERRA INC.

MEETING—THURSDAY 2 April 2015
7:30 pm Australian National University
Gould Seminar Room, Building 116, Daley Road, ANU, ACT
details back page

The Pilbara area of Western Australia - its ancient landscape and unique flora

Speaker: Mary Lovett

The geology of the Pilbara illustrates the ancient landscape that is Australia. The gorges of the Karijini National Park provide examples of the layering of the rock structures and the unique ecosystems found within them. The plants give an insight of the adaptations needed to exist in this harsh environment.



Contents

The Australian National Botanical Garden's new daisy garden	2
Book launch	4
Snowy excursion	4
Activities	5
Black Mountain walk	5

The Australian National Botanical Garden's new daisy garden

Why a new daisy garden at the Australian National Botanic Gardens (ANBG)? The Asteraceae family is one of the two largest families worldwide (the other being the Orchidaceae), with over 1,620 genera and 20,000–25,000 species worldwide. In Australia there are over 200 genera and nearly 1,000 native daisy species. There are also about 200–300 introduced daisies, some of which have become significant weeds. Despite this, the family was not well represented in the ANBG. The existing daisy bed on the Main Path was quite small and in a frost hollow, prohibiting cultivation of many of the interesting plants in this family.

Daisies are very successful due to their adaptability and high reproductive rate. One of the challenges in designing a new Asteraceae garden was how to represent and cultivate plants from such a diverse family—daisies are found on all continents except Antarctica, in all types of habitats and growing conditions (from clay to sandy soils, wet areas to dry, and full sun to shade), and with all types of growth habits (from small

herbaceous plants to tall shrubs and treelets).

The ANBG set up an Asteraceae Working Group to oversee the daisy garden development. Including representatives from the Australian National Herbarium and the Asteraceae Interpretation Group, as well as the Friends of the ANBG, has been of great assistance in designing a garden that both represents this plant family well and is accessible to the general public. The Friends Council also voted a large sum to help fund construction, since the garden was undertaken with existing resources.

A site was selected just below the Rock Garden, on a slope that could be contoured. Daisies are found in most habitats in Australia, from deserts to rainforest fringes, coastal sand dunes to alpine areas. This is reflected in the Garden's design, with water harvesting measures creating wet areas through an undulating landscape and trees at either end providing shaded areas. Combinations ranging from wet depressions to raised well-

drained mounds and full sun to shade allow specific species to be matched with their preferred growing conditions.

The construction phase involved extensive re-shaping of the area. The root fungus *Armillaria luteobubalina* was present on the site, so substantial earthworks were undertaken to remove



infected root material and add the mitigating *Trichoderma fungus*.

Replacement soil came from recycled materials—sandstone quarry waste brought in from the Mittagong area and soil left over from the ANBG's recently constructed Red Centre Garden. Different soil mixes have been used to provide ideal growing media for different species. As well as in-ground plantings, pipe containers present small plants more prominently and contain specialised soil mixes for some of the more difficult-to-grow species.

A feature of the Garden design is the central circular area surrounded by five 'petal' beds. Each of these beds will contain one or two species illustrating one of the five different types of daisy flowers, with explanatory signage. These are

- The typical daisy or traditional 'daisy' head, with disc florets (usually yellow) in the centre surrounded by ray florets that look like petals and are usually 3-teethed, e.g. *Senecio*, *Brachyscome*, *Olearia*;



- Button-type heads, with only the radiate disc florets, e.g. *Rutidosia*, *Leptorhynchus*, *Cotula*;
- Dandelion type heads, which only have 5-teethed ray style florets, e.g. *Microseris*;
- Paper daisies, or 'everlastings', which only have the radiate disc florets, but also have radiating paper bracts on the outside that look like petals, e.g. *Xerochrysum*, *Leucochrysum*, *Chrysocephalum apiculatum*;
- Compound head, or head of heads (called 'glomerules'). These are several heads condensed into higher order heads, with each small head surrounded by bracts (often not obvious on a casual glance), e.g. *Craspedia*, *Calocephalus*.

The ANBG began as a series of taxonomic beds, designed by botanists for botanists. Later developments were almost all ecological and horticultural, e.g. the Rainforest Gully and the Red Centre Garden. The new Asteraceae Garden is in a sense a return to the ANBG's origins, but with a difference—it has been planned with the ordinary visitor also very much in mind. It promises a great sensory experience, with visitors being able to immerse themselves in the sights, smells and feel of the plants. The mass plantings are spectacular when in flower, and as the garden matures there will be plenty of interest during the rest of the year.

Naarilla Hirsch

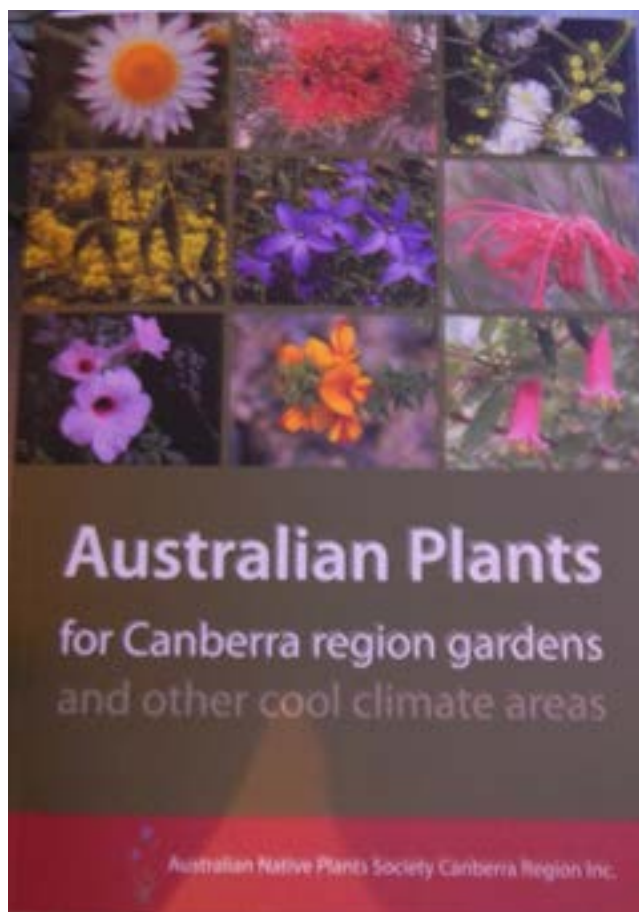
Book launch

The Australian Native Plants Society (ANPS) invited Ian Warden to launch the 5th edition of *Australian Plants for Canberra region gardens and other cool climate areas*. It is a 366 page successor to previous editions, which could be used to trace the 40 years of changes in the world of publishing. The ANPS's voluntary Book Working Group has achieved a stunningly beautiful record of 934 native species that can bring colour and diversity to local gardens for people and wildlife.

Each species is described in detail and illustrated with photographs contributed by ANPS members. The first 59 pages take readers and gardeners through a comprehensive account of gardening, showing how gardeners emphatically respond to local conditions when planning and preparing for planting and maintaining native species in spite of the challenging climate and soils of the region.

The book is currently available from the Botanical Bookshop retailing for \$30. It'll reach nurseries and good bookshops in due course.

Rosemary Blemings



Snowy excursion

In February, the another Canberra group worked in conjunction with Greening Australia and NSW Parks to undertake some weed surveys and regeneration plantings in the Kosciuszko National Park. Greening Australia kindly provided the accommodation and catering for the 20 volunteers.

A large patch of the invasive species, mouse-eared hawkweed was recently discovered by bushwalkers at a camping ground in the park. It is estimated that the plants have been established for some years so there was some concern that this species could have spread elsewhere.

Happily, no further incursion have been identified either on this weekend or on an earlier exploration survey.

However, this is not the only target weed in the sights of Greening Australia and NSW Parks in the alps region and this weekend was also to train a group of 'weedbusters' to be able to identify (and report sightings) of a number of invasive weed species, as well as to survey for them.

This weekend also involved a large group planting shrubs and ground covers as part of a regeneration project at Rawsons Pass and around Seamans Hut.

Perhaps the best part was actually being driven to Rawsons Pass, avoiding the long, long walk. We worked and planted faster than expected, so while we waited for a new supply of plants, a number of us actually got to walk to the top of Kosie (a mere 2 kms from Rawsons Pass).

It was a weekend of absolutely perfect weather, clear skies, warm temperatures and late enough to avoid the incessant March flies. In all we planted a massive 480 plants, while the four weed survey teams, thankfully did not encounter any massive weed infestations, though one group did find a massive dump of rubbish at Hedley Pass. They found two abandoned tents, two 'mattresses' and numerous noodles wrappers, canned tuna tins etc, which they had to bundle and bring out with them.



Activities

Excursion Sunday 12 April

A visit to the Tharwa sandwash to observe the honey eater migration to the coast. Meet at 10 am at the Tharwa end of the bridge. Should be finished by 11.30 when we will adjoin to a cafe of popular choice. Bring binoculars, picnic chair, hat, water etc. **Leader:** Warwick Daniels wda68126@bigpond.net.au **Phone:** 6231 0852.

Month	Speaker	Topic
2 April	Mary Lovett	The Pilbara Area of WA – the ancient landscape and unique flora
7 May	John Turnbull	Casuarinas: taxonomy, biology, and uses
4 June	Liz Truzwell	The Gondwana connection
2 July	Matthew Higgins	TBA

Black Mountain walk

Tony Lawson organised a Senior's Week walk around the perimeter of Black Mountain not that far from its summit on Sunday 22 March. It is a well worn track, somewhat stony, but unless completely disoriented one should not become geographically embarrassed. While few flowers were in bloom (Cassinia, bluebell, paper daisy) the Scribbly gum (*Eucalyptus rossii*) was in its naked glory in soft hues of cream, off-white, pale orange and patches of grey. The peeled bark lay in tan curls and broken fragments at the base of the trunks. *Eucalyptus polyanthemus* and *E macrorhyncha* were discussed. *Exocarpos cupressiformis* had the most fascinating bark. An ant (*Polyrhachis ammon*) with a honey-coloured gaster (abdomen) quickly traversed a tree trunk. A very large Golden Orb Spider led to talk of their web being capable of catching birds. Type its name into the Internet and you will discover images of such spiders actually eating birds.

Owl boluses had been regurgitated in at least four places along the track. The owls obviously prefer a clear space to indicate their presence. The boluses contained the softest grey fur. A feeding flock of small birds contained: Rufous Fantail, White-throated Tree Creeper, Grey Shrike-thrush, and many Little Brown Birds silhouetted against the sky. Better eyes than mine could identify them even using GISS i.e. General Information, Size and Shape.

Could one then, also use GISS to ID the 12 people who took part on the walk? Check the following photograph. Useful for hat species perhaps? A pleasant day, good views of the city, a reminder of the noise made by traffic and good company.

Thank you Tony

Rosemary von Brehens





Field Naturalists' Association of Canberra Inc.

Who are the Field Naturalists?

The Field Naturalists' Association of Canberra (FNAC) was formed in 1981. Our aim is to foster interest in natural history by means of meetings and regular field outings. Meetings are usually held on the first Thursday of each month. Outings range from weekend rambles to long weekends away. Activities are advertised in our monthly newsletter. We emphasise informality and the enjoyment of nature. New members are always welcome. If you wish to join FNAC, please fill in the member application below and send it in with your subscription to the FNAC Treasurer at the address below.

President: Rosemary von Behrens **Phone:** 6254 1763

Email: fieldnaturalist@yahoo.com.au

Website: under construction

All newsletter contributions welcome.

Email: alison.milton@health.gov.au

Editor



Monthly meeting venue: Division of Botany and Zoology, Building 116, Daley Rd, Australian National University. (The Xmas meeting is at the adjacent building 44 and will start at the earlier time of 6:30 pm.)

Field Naturalists' Association of Canberra
GPO Box 249
Canberra ACT 2601



MEMBERSHIP APPLICATION OR RENEWAL

Family name: First name:

If a family membership, please include the first names of other members of the family:

.....

Postal address:

Suburb: State: Postcode: Home phone:

Work phone: Email address:

Subscription enclosed: \$.....(Single/Family \$25) Donation: \$.....

How did you hear about FNAC? Please circle: FRIEND? OTHER? Please specify: