



Native Plants for New South Wales

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Native Plants for NSW

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

Contributions are warmly welcomed. They may be emailed, typed or hand written and accompanied by photographs and drawings. If handwritten, please print botanical names and names of people.

Photographs may be submitted as either high resolution digital files, such as jpg, or prints.

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Front cover: Sturt's Desert Pea flowers in their natural environment. Photo: Megan Wake

Back cover: Native bonsai on display in Canberra. Photo: Wendy Grimm
See page 53 for more information.

Introduction

David Crawford, Editor *Native Plants for NSW*

Welcome to a new year – I hope it is memorable for all the right reasons.

This issue of *Native Plants for NSW* is overfull, my apologies (again) to the contributors whose articles have been held over or heavily trimmed. That said, I am always happy to receive more contributions from members for the journal. Our members are diverse and the nature of their interest in our flora is likewise diverse. I believe this journal should reflect that variety.



The ANPSA Conference held last November is reported on in three articles. Rhonda Daniels provides a brief perspective from the viewpoint of a first-time attendee (p 7). Wendy Grimm concisely covers the post-conference tour to the Snowy Mountains (p 12). John Knight has taken a break from his regular column to report on the pre-conference tour of the NSW South Coast (p 20). This was a jam-packed, eventful trip and I have had to split the article across two issues to fit in all the action.

2016 activities of the Australian Plant Society in NSW begin with the quarterly gathering at North Curl Curl on February 27 (p 10). The Royal Easter Show follows soon after (p 14) and the Annual General Meeting is in May (p 28). Proxy and nomination forms are included on p 31 and p 34 respectively. Unlike previous years the program for the full year has been settled: see the President's Report (p 16) for the details.

Gwyn Clarke's account of bushfire and its aftermath is concluded in *Fire Fire Part 4* (p 46) where she discusses the recovery of the bushland plants. We visit a member's garden in the Southern Highlands which is an interesting mix of natives and exotics (p 4). The Central West Group report on a successful engagement with the community to help celebrate 200 years since the founding of Bathurst (p 36).

Warren Sheather introduces a *Callistemon* from the Northern Tablelands which has been in cultivation for many years (p 54). The Study Groups were busy in the lead-up to the ANPSA Conference and the SG notes reports on ten newsletters (p 56). Finally the Membership application and renewal form (always included in the centre pages of the journal) has been updated. Treasurers and Membership Officers in particular should take note and make copies of the new form.

I hope all members will take the time to have a good read and hopefully you will be rewarded.

A mixed-up garden

Jenny Simons, APS Southern Highlands Group

When I lived in Sydney, I read *Creating Australian Bush Gardens* by Betty Maloney and Jean Walker and set up an Australian native garden, which gave me a great deal of pleasure (though the neighbours thought it rather odd).

Years later, on moving to the Southern Highlands, I was drawn to planting a garden of cold-climate exotics, so tulips and clematis and heritage roses had their day.

I joined APS Southern Highlands Group and it was time to start on natives again. At first the only empty spot was in dense shade under 100 year old pine trees, *Pinus radiata*, where the soil was composed of broken down pine needles. But start I did, and some plants grew well, though it took them a while to penetrate the pine mulch to find the soil below.

Then most of the roses were given to friends and a large garden bed was available for more natives. In my heavy red clay soil, the following plants have done well: *Babingtonia virgata*, banksias, correas, croweas, dianellas, eremophilas, gahnia, *Indigofera australis*, leionema,



Gnarled *Pinus radiata* with (from left) *Westringia fruticosa*, *Prostanthera ovalifolia*, *Acacia cognata* 'Bower Beauty', other acacias behind

phebalium, philotheca, poas, prostantheras, *Spyridium parvifolium*, *Veronica perfoliata* and westringias.

Then I became interested in wattles and began planting species in every spot I could find and in every vacancy that occurred. I now have about 25 species and even more plants, so late winter and spring are a joy. The wattles make their presence felt among the weeping cherries, camellias and unfolding maple leaves. However a winter snowfall did cause many of the budding wattle branches to snap before they flowered. While every wattle is attractive to me, my favourite is *Acacia acinacea*, the Gold-Dust Wattle.



(L) Fading flower stem of *Acacia acinacea* (R) *Brachyscome multifida* 'Alba' with clematis and nerines

I also have many groundcovers, including *Brachyscome multifida* in blue, pink and white, *Grevillea* 'Carpet Queen', *Myoporum parvifolium* (a gift from the Sheathers) and *Zieria prostrata* 'Carpet Star', a beauty mentioned by John Knight in his column recently.

One of my particularly well-loved plants is a grafted, hybrid of *Microcitrus australasica* (the Finger Lime which is now placed in the genus *Citrus*). The hybrid was developed by the CSIRO and is promoted as Australian Blood Lime or Australian Red Centre Lime.



(R) *Microcitrus* hybrid in flower

The flowering in late spring is spectacular and it has a crop of purplish oval fruits, the shape and size of cumquats. This year it cropped so well that I have been able to make a batch of marmalade.

In some parts of the garden the natives are in 'segregated' beds, in others there is a mixture of natives and exotics, hence the title of this article. In the Southern Highlands the appeal of exotics to local gardeners mostly wins over native plants, so APS Southern Highlands Group campaigns for a 20/80 mixture of natives to exotics and we style our APS group as 'Your local native garden club'.



(L) *Boronia denticulata* with *Babingtonia virgata* behind

(R) *Clematis aristata* on the trunk of the exotic Golden Ash (*Fraxinus excelsior*) and *Lomandra longifolia* behind

The Australian Plants Society - NSW



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PLANTS SOCIETY**



APS NSW on the web
www.austplants.com.au

For the latest information about your Society see the web site, where you can read articles and newsletters, and participate in the forum about all aspects of native plants.

A first-timer at the ANPSA Biennial Conference, Canberra 2015

Rhonda Daniels, Sutherland Group

Although I have been an active APS member for over 20 years, I attended my first national conference in Canberra on 15-20 November 2015, and I do recommend it. A show of hands at the first session suggested about half the 200 attendees from across Australia were first-timers. Everyone was very friendly and enthusiastic, as you'd expect from APSers.

Highlights were the very high quality, informative talks in the mornings at the Australian Institute of Sport campus, followed by activities in the afternoon to grasslands, two private native gardens, the Australian National Botanic Gardens and the National Arboretum. The talks were a mix of Canberra-related topics and presentations by Study Group Leaders. As many Study Groups operate mainly by email, it was a great opportunity to hear from and meet the people behind the Study Groups. Who knew eremophilas grow and flower in the shade? – Canberra resident Dr Lyndal Thorburn, Leader of the Eremophila Study Group, explained their diversity.



Attendees from APS NSW (Neil Marriott for Ken Smith)



Red Centre garden, Australian National Botanic Gardens (Rhonda Daniels)

The five afternoon activities complemented the talks well. For instance, David Taylor, Curator of Living Collections at the Australian National Botanic Gardens, raised some of the challenges for the gardens including resource conflicts between maintaining scientific knowledge and ensuring visual appeal for the public, and efforts in establishing the new Red Centre display and the Australian daisy garden. Dr Alexander Schmidt-Lebuhn spoke about the Asteraceae (daisy) family and Dr Roger Farrow on the origin and evolution of our alpine flora which includes many daisies. At the Botanic Gardens, we visited the daisy garden and also saw many daisies on our walk through the Kowen stock reserve grassy woodlands.

Being chauffeured around Canberra to our activities in air-conditioned coaches, we appreciated the design and philosophy inherent in the city known as the 'bush capital', as described by keynote speaker historian Dr David Headon. We learnt about investigating the flora of Black Mountain from Dr Rosemary Purdie and creating wetlands in the ACT from Edwina Robinson.

Other conference highlights included beautiful botanical art for sale, a book shop with a wide range of reasonably priced books, colourful displays by Study Groups, and a 15 prize raffle. Peter Olde, Life Member from the Australian Plants Society NSW, received the Australian Plants

Award, amateur class, particularly for his work on grevilleas, and Angus Stewart gave the AJ Swaby Lecture on Australian plants in cultivation: the balance between wild sourced plants and cultivars.

I came home with an impressive collection of brochures about the vegetation of the Canberra region and its plant-related attractions, including the planned National Rock Garden.

Congratulations to the Australian Native Plants Society Canberra Region for hosting a very enjoyable and worthwhile conference and thanks to all the volunteers who contributed to its success. Look out for details on the next Australian Native Plants Society (Australia) conference in January 2018 in Hobart, Tasmania, hosted by the Australian Plants Society Tasmania.



Daisy garden, Australian National Botanic Gardens (Rhonda Daniels)

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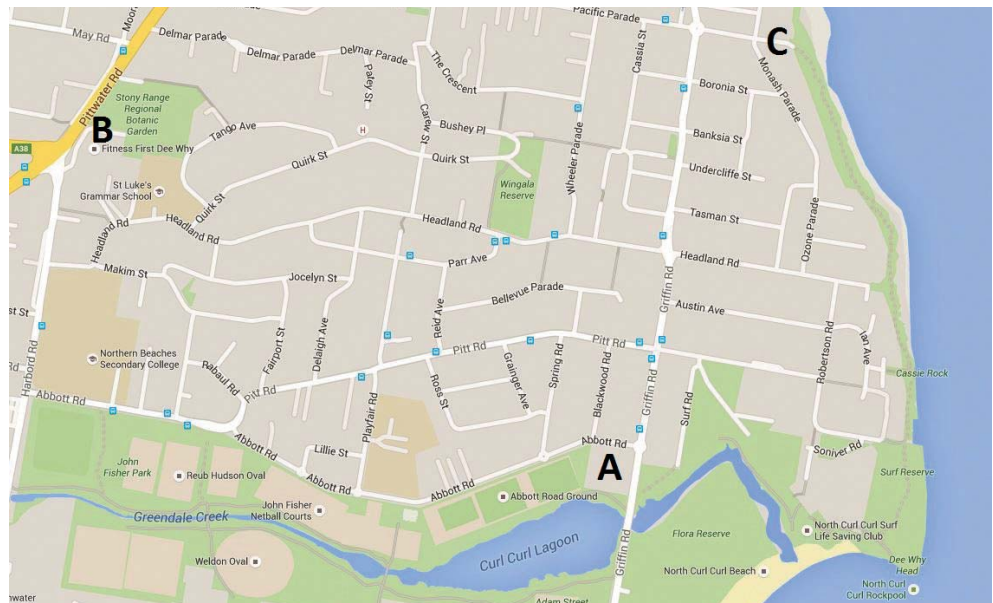


Notice of future activity

APS February Quarterly gathering

North Curl Curl Community Centre

Saturday 27 February 2016



The next APS NSW quarterly gathering is at the North Curl Curl Community Centre on the corner of Abbott and Griffin roads, (marked **A** on the map above) on Saturday 27 February 2016. It is hosted by the APS Northern Beaches Group.

www.warringah.nsw.gov.au/play/community-centres/north-curl-curl-community-centre-0

Program

Morning activities – there are three to choose from:

- 10.30 am. Stony Range Regional Botanic Garden, 810 Pittwater Road, Dee Why (mark **B**). Enjoy guided and self-guided walks in this oasis of Australian native plants. After half a century of growth, the rainforest gully is regarded as one of founding member Alec Blombery's greatest achievements at Stony Range. Today, it is a cool oasis populated with cedar, coachwood, flame trees, hoop pine, lilly pilly, ferns and palms.

www.warringah.nsw.gov.au/play/stony-range-regional-botanic-garden

- 11 am. Alan Newton Reserve, south of the North Curl Curl Community Centre, corner of Abbott Road and Griffin Road. Enjoy a short walk through a bush regeneration area which was revegetated about 30 years ago when the lagoon floodplain ceased to be a rubbish tip. It is an important transit habitat, acting as a wildlife corridor between Curl Curl Lagoon and the beach.
- 10.30 am. Dee Why to North Curl Curl cliff top walk along Dee Why Headland. Start at Dee Why Cliff Reserve at the end of Pacific Parade (mark **C**) and finish at North Curl Curl Surf Life Saving Club. A car shuffle will be organised at Dee Why Cliff Reserve. The walk is for the moderately fit and agile as there are many steps along the 1.6 km. The track passes through Hawkesbury heath vegetation, past Gahnia Lookout, Tea Tree Lookout and Rulingia Lookout

Quarterly gathering

- 12 noon Lunch – bring your own, with tea and coffee provided at the North Curl Curl Community Centre, corner of Abbott Road and Griffin Road.
- 12 noon Registration – entry is \$5 and includes a raffle ticket.
- 12 noon Plants for sale at stalls set up outside the hall.
- 1 pm Guest speaker Narelle Happ on 'Growing Bush Tucker in the Garden'. Narelle is a garden designer and horticulturalist who specialises in native garden and permaculture design. She has over a decade of experience and is passionate about creating 'living' spaces which are nurturing, productive and sustainable. Garden styles include natural bushland, rainforest, cottage or formal. Permaculture designs include garden layouts for food production and sustainability and designs that extend to engage and educate communities and schools by creating kitchen gardens and living classrooms. See more at www.agardenforlife.com.au



The raffle will be drawn at the end of the talk.

- 2 pm Afternoon tea and plant sales continue after the talk.

Alpine Post-Conference Field Trip

Wendy Grimm, APS North Shore Group

It was a challenge to follow such a well-run and enjoyable conference with an inspiring field trip, but Roger Farrow and the Australian Native Plants Society Canberra team of Linda, Christine, Bob and Jean did just that.

Two mini-buses, driven by Roger and Bob, left the conference venue at 11 am on the Saturday after the conference, with about 20 Society members from all states except the Northern Territory.

We broke the drive south from Canberra for a two hour visit to Iron Pot Travelling Stock Reserve on Jindabyne Road at Avonside. It is a lowland snow gum woodland where *Ajuga australis*, *Mirbelia oxylobioides*, *Veronica perfoliata*, *Grevillea lanigera*, *Pimelea glauca*, *Stackhousia monogyna*, *Diuris semilunulata* and *Chrysocephalum apiculatum* were some of the species in flower in the open country above Kara Creek.

On to Jindabyne where bed and breakfast accommodation had been booked at a very comfortable hotel on the shore of Lake Jindabyne. Evening meals were not included but many of us chose to use the hotel dining room for most dinners.

Roger had produced a pictorial guide to four of the popular walks in the Snowy Mountains. Species, family and common names accompanied each close-up photo and the photos were arranged in order of occurrence along each of the walking tracks. Armed with this booklet and hand lenses, cameras and binoculars, we endeavoured to learn to recognise the montane, sub-alpine and alpine flora as we worked our way towards higher altitudes on each successive day.



I'll let the photos depict the rugged country of Kosciuszko National Park and the sunny weather that we enjoyed on the walks along the Waterfall, Rennix and Porcupine Tracks and during the long, gentle climb towards the summit of Mt Stilwell. The displays of yellow and white daisies and purple, yellow and white shrubs were outstanding and we were fortunate to find many terrestrial orchids in flower. We can't thank Roger for the sunny days, but we can applaud his forethought in moving the Mt

Diuris semilunulata (Late Leopard Orchid), Iron Pot TSR



Walking contingent on Mt Stilwell

Stilwell excursion to the second last day to avoid the extreme winds forecast for Wednesday, our last walking day.

Fresh salad rolls were much appreciated at each of the well-chosen lunch spots. An evening dinner together on Wednesday night capped an altogether splendid holiday. Early Thursday the buses returned us to the conference venue for people to collect their cars or to take flights home. It was a great way to share five and a half days with active, interesting people and to learn about the flora of the high country.



(L) Green Christmas beetle (*Xylonychus eucalypti*) found along Rennix Track
(R) *Ranunculus anemoneus* (Anemone Buttercup), listed as vulnerable under NSW TSCA



Volunteers needed to help APS NSW at Easter Show

Help promote Australian plants and your Society by participating in the Sydney Royal Easter Show. Volunteer for the APS NSW stand and also help promote Australian plants by entering flowers in the competition.

Call for volunteers

We need volunteers to be rostered on the APS NSW stand for six days at the Show from Thursday 17 March to Tuesday 22 March 2016. We also anticipate having a small table display on 25 & 26 March during Session 5 of the competition judging.

The stand is open from 9.30 am to 5.30 pm each day. There will be two shifts: the first from 9.30 am to 1.30 pm and the second from 1.30 pm to 5.30 pm. It is planned to have at least two members at the display for each shift to hand out leaflets, sell plants and talk to the public about your love for Australian plants. Free entry to the show is an added benefit to helping your society and promoting our flora.

To register your name, please contact Leonie Hogue on 0416 286 083 or leoniehogue@gmail.com

Competition entries

Time is short. You will need to act quickly to enter flowers for competition in the Easter Show for 2016. Again this year there are two sessions – Australian Plants in session 5 (Friday 25 March) and Banksias in session 7 (Tuesday 29 March). Go to the RAS website www.sydneyroyal.com.au/flowers to enter and help fill the hall with amazing native plants – one or two extra entries can make all the difference. You can enter as an individual or as a group. As a group you pay the one entry fee and everyone can enter under your group name.

If you know nothing about arranging or presenting flowers for judging but love growing them, how about contacting a floral art group at your local college? Give them your flowers and let them have the fun of entering the Show for you and your group.



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Pilbara Reef & Ranges Expedition

15 Day Camping tour – Departs 5th April 2016

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Kimberley Discovery

15 Day Camping / Accom Tour – Departs Broome 4th June 2016

Enjoy a wonderful outback experience as we discover the Kimberley's wildlife, spectacular outback scenery, and many wonderfully refreshing waterholes as we explore Purnululu N.P, the many gorges of the Gibb River Rd, El Questro and Mornington Stations.

Kimberley Wonders

12 Day Camping Tour – Departs 25th June 2016

A different twist on the Kimberley, we include the best of the Gibb River Road but add a visit to the Mitchell Plateau. On the plateau experience the spectacular Mitchell and Mertons Falls plus great examples ancient rock art along with the regions wonderful flora and fauna.

Kununurra to Alice Springs Expedition

14 Day Camping Tour – Departs Kununurra 14th July 2016

This trip is packed with highlights including a Lake Argyle cruise, the Keep River National Park, Duncan Highway, Wolf Creek Crater, Lake Stretch, the Tanami Road, New Haven Sanctuary and the West MacDonall Ranges

Lake Eyre Basin and Flinders Ranges Expedition

15 Day Camping Tour – Departs Alice Springs 3rd August 2016

This tour covers some of South Australia's most historic outback locations in the Lake Eyre Basin and the spectacular Flinders Ranges. Both regions offer vastly different examples of our great country and offer an opportunity for a wide range of flora and fauna.

W.A.'s Mid West Wildflowers

10 Day Accommodated Tour – Departs Perth 3rd September 2016

See botanical hot-spots north of Perth during wildflower season. The trip covers a diverse array of landscapes with the farm lands of the wheat belt, the station country around Mt Magnet and Yalgoo before covering the highlights of the Kalbarri National Park and the northern sandplains around Eneabba, Badgingarra and the Mt Lesueur National Park.

Great Western Woodlands and Helena Aurora Ranges

12 Day Camping Tour – Departs Perth 17th September 2016

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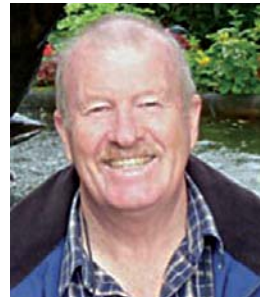
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President's Report

John Aitken, President APS NSW

Welcome to a new year. I hope that you and your families had a wonderful start to 2016 and that this year will prove to be a rewarding one for each of you.



It is with great sadness that we heard of the death of Harry Brian, a Life Member of APS NSW. Harry was one of nature's gentlemen whose passion for Australian native plants was infectious. He was a long-term member of the East Hills Group, who readily shared his experience and knowledge of Australian native plants with those around him. He will be sadly missed by those who had the pleasure of knowing him.

Strategic planning

This year should be exciting for APS NSW as we continue our strategic planning. A lot of thought and energy has gone into the preliminary stages. It is planned for Board members to visit each group in February, March or April to discuss the proposed strategy with members and to encourage one or two representatives from each group to attend the workshop on 28 – 29 May in Sydney. By visiting groups and involving representatives from each group in the workshop, we hope to draw on members' ideas for the future direction of APS NSW. The Board's priority is to develop a plan for the future of APS NSW that is inclusive of members' ideas and not just a proposal of a few. It is important that members have ownership of any plan that is developed so that we move forward as one to ensure APS NSW's future growth and development.

Members' email addresses

APS NSW is trying to improve communication with members especially between issues of *Native Plants for NSW*. We are also actively working to control costs and postage is a significant item. Email is increasingly being used with information sent to group presidents, secretaries and newsletter editors for passing on to members. The next step is to compile a database of members' email addresses so communication is more direct. As with other membership information, these addresses will be kept securely and will NOT be passed onto any third parties. The Society appreciates that some members do not have an email address and members can elect NOT to receive emails.

I recently sent an email to those members who had included an email address on their membership forms, however a number of emails bounced. If you did not receive this email or have a new address and

wish to be included on the database please email the office at office@austrplants.com.au . Thank you to all those members who received and responded to my email.

Online payment system

Our web manager Mark Abell has been working very hard developing an online subscription and payment facility for *Australian Plants*. We intend to offer two payment options: credit card via Paypal or direct deposit. After proving the system we will introduce online payment for APS NSW membership and renewal.

ANPSA Conference

A large contingent of APS NSW members attended the ANPSA biennial conference in Canberra in November 2015. The conference was a great success and provided those attending with a variety of excellent talks and excursions. Congratulations to the Australian Native Plants Society Canberra for the wonderful job they did in organising the conference. One of the highlights of the conference was ANPSA's recognition of Peter Olde, who was awarded an Australian Plants Award for his outstanding contribution to our knowledge and understanding of Australian native plants, in particular grevilleas. I congratulate Peter, a past president of APS NSW and a Life Member, on receiving this prestigious award.

2016 Activities

The APS NSW quarterly meetings continue to be very popular with members. On behalf of APS NSW, I would like to thank the following groups for their commitment and enthusiasm in hosting these upcoming events in 2016:

- Northern Beaches Group at North Curl Curl Community Centre, 27 February 2016
- Sutherland Group at Sutherland Multi Purpose Centre, 21 May 2016
- Tamworth Group, 2016 Annual Get-together, 20 & 21 August 2016
- Macarthur Group at Tony and Penny Sexton's Black Stump Native Garden, Camden, 19 November 2016.

Timely membership payments

Merle Thompson, our membership officer, has reported that a significant number of members forget to renew their memberships when they are due. APS NSW allows members 3 months grace to pay, after which they do not receive further copies of our journals. Late renewal places an extra burden on Merle, who has to send these members back copies of the journals. Could I urge all members to renew their membership when it is due or shortly before.

Conservation Report

Dan Clarke is the Conservation Officer for APS NSW and can be contacted by email at conservation@austplants.com.au



In Court

I, along with other APS members, recently attended a Land and Environment Court Section 34 Conference for a proposed development on the Spring Gully land at Bundeena, adjoining the Royal National Park. A Section 34 Conference allows for a conciliation hearing between the parties involved in the development, and provides an opportunity for the public to express their concerns to the Court. I addressed the Court on behalf of APS NSW, emphasising our opposition to the proposed recreation camp on the Spring Gully land, which includes permanent tents and other infrastructure. The development requires the clearing of thousands of trees and habitat for threatened fauna on steep bushfire prone land. It impacts on the endangered ecological community known as Eastern Suburbs Banksia Scrub.

I will be following this court process closely, and writing to the Minister for the Environment who has the power to withhold approval for the proposed road widening on the national park's land, which is part of the development application. The land should be acquired by the State and added to the Royal National Park. You can read more about the development application and efforts to preserve Spring Gully at www.springgully.org

I remind members that we can all play a supporting role to groups who are opposing development applications which impact on native flora and fauna. You can assist by providing botanical and bushland expertise. You can also ask me for help in writing a submission or reviewing an ecological assessment report which you may have access to.

More *Prostanthera densa* found

As part of the Save our Species Program for *Prostanthera densa* in the Royal National Park, I visited the site recently and located another group of unrecorded plants, somewhat separate from our first patch. The plants are becoming more challenging to access as there are no existing tracks, so some serious 'bush-whacking' is involved! However the dense vegetation has protected these rare plants from the Rusa deer.

Conservation in 2016

Plans for 2016 include updating the conservation page on our website to provide more focus on current conservation issues. I also try to post unnamed native plant photos, from the field, on our Facebook page on a weekly basis. APS followers who see the posts have the chance to be the first in with the correct botanic name.

A Conservation Committee is being formed to support the work of APS NSW in fostering, supporting and promoting the preservation and conservation of Australian native plants. The Committee will be responsible for:

- developing an APS NSW conservation policy
- developing and implementing a plan for promoting the conservation of Australian plants within APS NSW and the broader community, and
- preparing submissions to government and other relevant bodies on key issues regarding native plant conservation issues

If you are interested in being on the committee please contact Alix Goodwin at alix.goodwin@bigpond.com



ANPSA Pre-Conference Field Trip NSW South Coast From the mountains to the sea



John Knight APS SE NSW Group

(C Bate)

Following months of meticulous planning, an ambitious tour option was presented to the Conference organisers by tour leaders, Catriona Bate, Phil Trickett, and John and Sue Knight. Our plan for the tour was to present participants an opportunity to discover all that the wonderful south coast of New South Wales has to offer.

Leading up to the tour, rain was a constant companion. We were thankful that rain cleared the week before so that we could check the roads were clear and safe, not just for the bus but our passengers.

On day 1 the tour leaders were joined by Peter and Margaret Olde, who added to the expertise in the group. From Canberra, heading toward the coast, we first stopped by Warri Bridge at the Shoalhaven River where Peter told of an interesting form of *Grevillea arenaria* subsp. *arenaria*. Collected by Allan Cunningham in 1824, these plants are large grey-leaved bushes to 3 m, and differ from the closely related *G. arenaria* subsp. *canescens* in the indumentum, (covering of fine hairs) on the leaf undersurface and the leaf shape. The roadsides in this area support a forest of mixed eucalypts, such as *Eucalyptus rubida* (Candlebark), *E. rossii* (Scribbly Gum) and *E. macrorhyncha* (Red Stringybark), with an understorey of wattles and *Daviesia mimosoides* (Blunt Leaf Bitter Pea), supported in late spring by the massed bright purple display of

Kunzea parvifolia (Small Leaf Kunzea), which due to the hot October, had all but finished flowering.



We then travelled to **Monga National Park**, established in 2001. Prior to this the Monga State Forest, for over 100 years, produced many first class hardwood logs. The small settlement of Monga

is a reminder of a prosperous past where timber milling survived by selectively felling hardwood. The main trees logged were *Eucalyptus fastigata* (Brown Barrel), favoured for the long straight trunks, and *E. cypellocarpa* (Monkey Gum or Mountain Grey Gum). Timber milling commenced in 1858. The wet sclerophyll forest at Monga remains largely unlogged by modern forestry practices.

Here are seven known rainforest species growing at or near their southern limit. A species largely endemic to southern NSW *Eucryphia moorei* (Pinkwood) reaches enormous size and age, some measuring four metres in width in the pristine rainforest. Potentially thousands of years old, these Pinkwoods are relic vegetation communities, having survived the climate fluxes of the Quaternary (last 1.6 million years), and thus are relics of Gondwana. The 30 metre tall *Dendrocnide excelsa* (Giant Stinging Tree) and woody vines up to 30 centimetres in diameter indicate old age and low disturbance. Plant species found here include *Synoum glandulosum* (Scentless Rosewood), *Doryphora sassafras* (Sassafras), *Ceratopetalum apetalum* (Coachwood), *Polyscias murrayi* (Pencil Cedar), *Livistona australis* (Cabbage Tree Palm), *Syzygium smithii* (Lilly Pilly), *Tristaniopsis laurina* (Water Gum), *Polyosma cunninghamii* (Featherwood) and *Eupomatia laurina* (Bolwarra). This is the only place known where cool-temperate rainforest supports a co-dominance of *Eucryphia moorei* and *Atherosperma moschatum* (Black Sassafras), and is one of only two places in Australia where two species of waratahs, *Telopea mongaensis* (Monga Waratah) and *Telopea oreades* (Gippsland Waratah), grow so closely together.

After a 700 m walk through the forest, we reached the **Penance Grove** boardwalk in a pocket of cool temperate rainforest featuring ancient pinkwood trees forming a cathedral-like canopy over a valley of venerable soft tree ferns, (*Dicksonia antarctica*) flourishing in the



cool forest environment. From here we walked to Mongarlowe River to view the waratahs (*Telopea mungaensis*) and a varied understorey of Mountain Pepper (*Tasmania lanceolata*) which some tasted, and a brilliant display of *Epacris calvertiana*. Afternoon tea was enjoyed in the cool mountain air before we headed down Clyde Mountain, on a road alignment first surveyed by Thomas Mitchell in 1855. Calls to construct the road to the coast required some compromise, and when built, the construction cost was recouped by installing a toll gate between the top of

the mountain and what is now known as Pooh's Corner.

Kings Highway winds through forests of varying kind. The most prominent is the association of Lowland Wet Sclerophyll Forest dominated by *Corymbia maculata* (Spotted Gum) and *Macrozamia communis* (Burrawang). It is thought that the significant number of burrawangs resulted from continual burning by Aboriginal people to remove competition species and allow the burrawang to thrive, as it was a major food source.

Just before reaching Batemans Bay, we detoured to Rotary Lookout, overlooking the Clyde River estuary, and the valuable oyster farms thriving in the pristine water. We gathered the group for the 'Tour Photo', completing a busy day in brilliant sunshine.



Thomas Mitchell as surveyor was a great supporter of Aboriginal place names, and many towns on the south coast recognise these, including Moruya (resting place of black swans), the centre of government for the Eurobodalla Shire (land of many waters), and Bodalla commonly recognised as a derivative of 'Bularra' (near two or many waters). It was at Bodalla on day 2 that we visited the magnificent 80 hectare property 'Horse Island', home to Christina and Trevor Kennedy. Christina's ancestor, Thomas Sutcliffe Mort, originally had this land as part of his 56,000 acre farm holdings. The extensive garden is beautifully landscaped and is framed by stunning river views.

Greeting us in again brilliant sunshine, Christina spoke proudly of her love of Australian plants. We were then invited to stroll around the shrubby gardens, structured and formal, or loose and natural, led in groups by John and Peter. Participants lingered over this plant and that, or sought information from Christina about her design. There are mature hedges of *Syzygium*, *Grevillea* and *Agonis*.



Christina has adhered to an Australian native plant palette almost exclusively, but has allowed some magnolias into her design, as they are a traditional tree with her family. Being an adventurous gardener, she loves to try difficult or newly developed plants. A grafted plant of the sculptural but difficult to grow *Grevillea flexuosa* is struggling to perform

at its best, but some very healthy seedlings have germinated around the mother plant. Christina has found a perfect spot for Bywong Nursery's *Eucalyptus camaldulensis* 'Blue Veil' which hangs decoratively from a pergola.



Chatham Park at Tuross Head is an area of 7 hectares of natural bush, containing remnant rainforest below significantly old trees such as *Eucalyptus pilularis* (Blackbutt). The area is maintained by volunteers of the Tuross Head Preservation Group, who have established walking trails so visitors can appreciate the flora and the birdlife. Lunch was then taken overlooking picturesque Tuross Lake before we headed to Moruya River, where we passed the quarry which produced the blue granite for Sydney Harbour Bridge. Now, through a remnant stand of the endangered Bangalay Sand Forest, we observed an ancient Forest Red Gum (*Eucalyptus tereticornis*), known locally as the Broulee Canoe Tree.

Next stop was the **Eurobodalla Regional Botanic Gardens**.

Situated on 100 acres within Mogo State Forest, the Gardens grow and display only plants occurring naturally in the region, defined as being within the catchments of the three major rivers of Eurobodalla, the Clyde River, Moruya (Deua) River and the Tuross River. Almost 2,000 species are recorded within this area, and the Gardens' ambition is to grow as many of these as practical. Gardens volunteer guides walked us through parts of the Gardens, answering questions as we went.



Day 3 dawned grey and overcast, but fine. In **Murrumbidgee National Park** we passed through some lovely wet sclerophyll forest, with *Eucalyptus saligna* (Sydney Blue Gum) particularly prominent. In the wetter gullies extensive rainforests thrive, the diversity of the plant life readily observed from the roadside. There are substantial areas of coastal Blackbutt forest, with *Eucalyptus pilularis* (Blackbutt), *Livistona australis* (Cabbage Tree Palm) and *Syzygium smithii* (Lilly Pilly) with unique and typically high levels of biodiversity. Over 400 flora species have been recorded. Murrumbidgee National Park is noted for its diversity and extent of rare stands of subtropical/warm temperate and littoral rainforest. *Crinum pedunculatum* (Swamp Lily) is here at the southern limit of its distribution.



The road to **Pebbly Beach** traverses majestic spotted gum forest with a varied understorey. Misty drizzle curtailing our activities, a few kangaroos posed for a photograph, as the group walked through an increasingly wet forest before returning to take a welcome hot cuppa while protected by a substantial roofed picnic area as the drizzle turned to rain.



Further north, the vegetation is dominated by eucalypt forests and the old-growth forest ecosystem of *Eucalyptus pilularis* (Blackbutt), *Corymbia maculata* (Spotted Gum) and *Elaeocarpus reticulatus* (Blueberry Ash) contains one of the largest known Spotted Gum in existence. 'Old Blotchy' is 53 m tall with a diameter of 2.88 m and girth 10.8 m, and is estimated to be 500 years old. It was a fitting tribute to this venerable old tree that we, at 11 am on the 11th day of the 11th month, collected as a group at its base for a minute's silence, and then a memorable group photo.

Back on the bus, our trials began. First we found leeches. Then the bus refused to move forward on the slippery, muddy surface. Our two support vehicles, piloted by Phil and Peter, were called into service and attempted to add their power to the bus. No success, so in now-steady rain the passengers disembarked. A full hour later, after much grunting and perspiration, the bus was finally extracted, and towed to meet the waiting group, slipping and sliding all the way. No sooner had we reached the corner and the wet passengers boarded, than our progress was stopped by a 4WD coming down the hill. However, this vehicle was to deliver our salvation: hot fish and chips which Catriona had ordered. Hearing of our plight, the shop owner had offered to deliver our lunch lest we starve whilst stuck. Good service!

The tow vehicles remained in service until the bus finally reached a stone-surfaced section of the road on a downhill slope, and then cheers from the passengers greeted our return to the bitumen.

[We have to leave the second half of the pre-conference tour for the next issue of *Native Plants for NSW* due to space restrictions. Rest assured that all ends well.- Ed.]

APS NSW Seed Bank update

John Randall, Seed Bank Curator

Requests for seed can be sent by mail to:

John Randall
8 Coachmans Place,
Mardi NSW 2259



An updated seed list was published in the April 2015 issue of *Native Plants for NSW*. This list can also be found on the APS NSW website www.austplants.com.au by selecting **Seed Bank** in the **Resources** pane on the Home page, or it can be accessed directly by pasting the following address into your browser: austplants.com.au/seedbank

There is a limit of six seed packets per request. Inquiries can be made to John at johnannette@dodo.com.au or on (02) 4353 9390. Please enclose a stamped (\$1.40) self-addressed envelope (110 x 220 mm) for return of the seeds. Please list seed requests in alphabetical order and include a list of alternative selections.

Seed donations are always welcome and are vital if the seed bank is to remain viable. Please state the source of the seed, whether from natural or cultivated material. Please do not send seed from hybrid plants.

Additions: *Acacia stricta*, *Hakea archaeoides*

Deletions: *Acacia terminalis*, *Anigozanthos flavidus*, *Billardiera cymosa*, *Eucalyptus preissiana* and *Pelargonium australe*.

Donors: M.Sleigh

Peter Olde wins ANPSA award

Peter Olde is a well-known and highly respected member of the Australian Plants Society. Already a life member and former state president, Peter recently was awarded the Australian Plants Award (Amateur category) at the ANPSA Conference in Canberra. Peter is co-author of the three volume *Grevillea Book* and the long-term leader of the Grevillea Study Group. He has also developed a wonderful native garden, *Oakdale* in Sydney's south-west to showcase native plants.



(R Cartwright)

Notice of future activity

Annual General Meeting of APS NSW Ltd

Sutherland Multi Purpose Centre

123 Flora Street Sutherland, NSW

Saturday, 21 May, 2016 at 1 pm

The Annual General Meeting of APS NSW will be held in conjunction with the May gathering hosted by APS Sutherland Group. The guest speaker at the event will be Anthony O'Halloran who will talk about the threats to the Pilliga Forest. Anthony and his wife, Annabel Greenup, run an Australian native plant nursery and cut-flower farm, called Bilby Blooms, outside Binnaway on the Central West Slopes of NSW. Anthony has a keen interest in plants of the inland and goes on regular expeditions to remote parts of the country collecting plants and seeds to grow in their nursery. He is an expert on the flora of the Warrumbungle Ranges and the nearby Pilliga Forest and led a wonderful 'tag-along tour' of these areas following the APS NSW Get-together at Burrendong Arboretum in 2011. He is also an active conservationist who is involved in protecting the Pilliga Forest from the effects of coal seam gas mining and logging in the area. He will talk about his experiences as well as threats to the Pilliga Forest.



Anthony and Annabelle (on the right) discussing Australian native plants at an open day at their nursery Photo: www.northerndailyleader.com.au

More details of the program for the May gathering will be provided in the April 2016 issue of *Native Plants for NSW*.

The Australian Plants Society NSW Ltd

A company limited by guarantee

Notice is hereby given that the Annual General Meeting of the Australian Plants Society NSW Limited will be held on 21 May 2016, commencing at 1pm at the Sutherland Multi Purpose Centre, 123 Flora Street Sutherland, NSW

Agenda.

1. Welcome
2. Apologies
3. Declaration of proxies
4. Minutes of previous Annual General Meeting held 23 May 2015
5. Business arising from previous Annual General Meeting
6. President's report
7. Other reports
8. Financial reports
9. Election of Life Members
10. Conservation Award
11. Election of officers

We look forward to seeing you there. We are in the process of renewing ourselves and it would be great to have your involvement and encouragement.

A proxy form and a nomination form for the AGM are included in this issue of *Native Plants for NSW*. The proxy form is for members who are unable to attend the AGM but who wish to nominate a proxy to vote in their absence. The nomination form is to nominate members to stand for the office bearer positions which are to be elected at the AGM. The pages are included on the back of the centrespread of your journal so they may be easily removed for photocopying and scanning as required.

Please note that members will NOT receive a copy of the Annual Report, unless they have specifically requested the Office to send one either by email or post. A copy of the annual report will be available for members to view on the APS NSW website at www.austplants.com.au from mid-April.

Any questions of a financial nature arising from the Annual Report are to be forwarded to the Australian Plants Society NSW Ltd. office by either email or post by midday Wednesday, 11 May 2016. All responses will be given to members at the AGM.

District Group directory

District Groups are located in many areas throughout New South Wales and range in size from fewer than 20 to over 100 members. Group members are able to take part in many activities including bushwalks, bush regeneration and conservation projects. Regular meetings enable members to keep in touch with people of similar interests and to hear expert guest speakers. Contact the Secretary of a specific group for further information.

Armidale and District

President: Phillip Rose
Email: prosecarwell@bigpond.com
Secretary: Helen Schwarz ☎ (02) 6772 1584
PO Box 735, Armidale NSW 2350
Email: woshes@bigpond.com

Meetings: ASCA House, 166 Barney Street, Armidale
3rd Tuesday of the month at 7.30 pm (excluding December, January, June, July).

Blue Mountains

President: Dick Turner ☎ (02) 4739 5362
Secretary: Alix Goodwin ☎ (02) 4739 1571
PO Box 23, Glenbrook NSW 2773
Website: www.apsbluemtnsgroup.org

Meetings: Native Plant Reserve, Great Western Hwy, Glenbrook
1st Friday of the month at 8 pm (Sep-May) and
1st Sunday of the month at 10 am (Jun-Aug).
No meeting when there is an outing in the month.

Central Coast

President: Richard Street ☎ 0414 762 324
Secretary: Liz Hoese ☎ (02) 4339 1274
Email: aps.cc.secty@gmail.com

Meetings: Phillip House, 21 Old Mount Penang Road, Kariong
Generally 2nd Friday of the month (excl. Jan, Dec) at 7.30 pm but winter meetings on Saturday afternoons. Check website for details.
Website: www.australianplants.org

Central West

President: Gillian Baldwin ☎ (02) 6332 1583
Secretary: Lyn Burgett ☎ (02) 6331 9170
Email: l.burgett@bth.catholic.edu.au

Meetings: Bimonthly at alternating centres.
Contact the secretary for details.

Coffs Harbour

President: Dr M Duggan ☎ (02) 6649 3202
Email: morris@guarana.org
Secretary: Gwyn Clarke ☎ 0419 414 324
123 Sandstone Dr, Kungala NSW 2460
Email: gcl.38500@bigpond.com

Meetings: Coffs Harbour Botanic Gardens Display Room normally on the 2nd Wednesday of alternate months at 7.30 pm (excluding Jan).
Website: www.coffs.australianplants.info

East Hills

President: Graham Walters ☎ (02) 9534 3039
Email: agwalters@bigpond.com
Secretary: Karlo Taliana ☎ (02) 9709 6135
Email: karlo.taliana@optusnet.com.au

Meetings: Lugarno–Peakhurst Uniting Church
909 Forest Road, Lugarno
1st Wednesday of each month at 7.30 pm (excluding January).

Hawkesbury

Contact: Arthur Rutter ☎ (02) 4577 3271
99 The Terrace, Windsor NSW 2756
Email: aande42@bigpond.com.au

Meetings: This group was re-launched at the APS NSW gathering in November 2014.

Hunter Valley

President: Michael Belcher ☎ (02) 4930 1458
Secretary: Kevin Mantle ☎ (02) 4937 3200
29 Wallaroo Road, Seaham NSW 2324
Email: mantlej58@gmail.com

Meetings: The Polish Hall, Cnr Grant & Old Rose Sts, Maitland
3rd Wednesday of the month (Feb-Nov) at 7.45 pm.

Illawarra

President: Kath Gadd ☎ 0414 333 475
Email: kath@malleedesign.com.au
Keith Hunter ☎ 0481 599 008
Email: keithjohnhunter@gmail.com

Facebook: type 'APS Illawarra' in the Facebook search bar.

Activities: This group is aiming to have an activity each month – check the Facebook page or contact the leaders.

Continued page 35

PROXY FORM

APS NSW Ltd AGM, 21 May 2016

The instrument appointing a proxy may be in the following form or in a common or usual form. The Memorandum and Articles of Association, 15 January 1993, should be read in conjunction with this form.

To: Australian Plants Society NSW Ltd
P.O. Box 5026
OLD TOONGABBIE NSW 2146

This proxy must be received not later than 48 hours before the meeting (Closing 1 pm on Thursday 19 May 2016)

I _____
of _____

being a member of the Australian Plants Society NSW Ltd (hereafter called "the Company") appoint

as my proxy to vote on my behalf at the Annual General Meeting of the Company, to be held on Saturday 21st day of May 2016 and at any adjournment of that meeting.

My proxy is hereby authorised to vote *in favour of / *against the following resolutions:

Signed _____ Date: _____

Note: In the event of the member desiring to vote for or against any resolution he or she may instruct his or her proxy accordingly. Unless otherwise instructed, the proxy may vote as he or she thinks fit.

* Strike out whichever is not desired.

Australian Plants Society NSW

A Charitable Company Limited by Guarantee

Membership application and renewal form

Please select your application type.

- New member. I wish to apply for membership of the Australian Plants Society NSW Ltd and agree to the Memorandum and Articles of Association at www.austplants.com.au
- Renewing member: Membership number _ _ _ _ _
Please tick if any details have changed from last renewal
- Gift membership. Donor name _____
Include any personal card you wish to accompany the new member's pack.

1. Complete your details

Name(s) _____

Address _____

Email _____

Phone () _____

District Group (if relevant) _____

2. Select your membership type

12 months membership. Rates at 1 January 2015. GST inclusive. Joint membership applies to two people at the same address. Each receives a membership card. A concession is available to Seniors, people on a limited fixed income and full-time students.

- | | | | |
|---|----------|--|------|
| <input type="checkbox"/> Individual | \$53 | <input type="checkbox"/> Individual – Concession | \$45 |
| <input type="checkbox"/> Joint | \$61 | <input type="checkbox"/> Joint – Concession | \$53 |
| <input type="checkbox"/> Overseas | A\$60 | | |
| <input type="checkbox"/> Optional donation to APS NSW | \$ _____ | | |

3. Select your payment method

Cheque or money order payable to Australian Plants Society NSW

Visa MasterCard

Card number _ _ _ _ / _ _ _ _ / _ _ _ _ / _ _ _ _

Expiry date _ _ / _ _

Cardholder's name _____

Cardholder's signature _____

Direct deposit

Bank Commonwealth Bank of Australia
Account name Australian Plants Society NSW Ltd
BSB 062 217
Account no. 0090 7163

Please use as the reference your surname and 6-digit membership number which is on your membership card and your journal mailing envelopes. Please email merleaps@bigpond.com to advise of your deposit.

4. Return your form by post or email

Australian Plants Society NSW
Membership Officer
PO Box 3066
BOWENFELS NSW 2790

Membership inquiries

Merle Thompson, Membership Officer
merleaps@bigpond.com
Ph (02) 6352 3805 Fax (02) 6351 2384



Australian Plants Society NSW Ltd
ACN 002 680 408
www.austplants.com.au

01/16

Election of Officers – Nomination form

The following office bearers will be elected at the Annual General Meeting to be held at the Sutherland Multi Purpose Centre, on Saturday, 21 May 2016 at 1 pm:

President	Vice Presidents (2)
Honorary Treasurer	Membership Officer
Publicity Officer	Company Coordinator
Exhibition Coordinator	Program Officer
Conservation Officer	Properties Officer

Nominations for these positions must be received at the Australian Plants office by 5 pm on Wednesday, 18 May 2016.

Please fill out this form and return it to:

The Honorary Secretary
PO Box 5026
Old Toongabbie NSW 2146

Nominations will also be received at the Annual General Meeting from the floor.

*** Please photocopy this form if you require extra copies ***

Australian Plants Society — Election of Officers

We hereby nominate: _____

For the position of: _____

Nominated by: (print name): _____

Signed: _____ Date: _____

Seconded by: (print name): _____

Signed: _____ Date: _____

I, _____

of _____

being a fully paid-up member, hereby consent to being nominated for the position.

Signed: _____ Date: _____

District Group directory continued

Macarthur

President: Robin Davies
Secretary: Rod Bray ☎ (02) 4647 9928
147 Holdsworth Drive, Mt Annan NSW 2567
Email: yarbdor@westnet.com.au
Meetings: Jack Nash Club Rooms, Nash Place
Currans Hill NSW 2567. 3rd Wednesday of the
month at 7.30 pm (Feb-Nov).

Menai

President: Jason Cockayne ☎ (02) 9570 8559
Email: Jay.shaz@hotmail.com
Secretary: Annette Tuckfield ☎ (02) 9543 1490
Email: menaiwildflower@austplants.com.au
PO Box 3104, Bangor NSW 2234
Meetings: Illawong Rural Fire Service.
2nd Saturday of the month at 1 pm (June–Aug)
2nd Wednesday of the month at 7.00 pm (others
excluding January).

Newcastle

President: Colin Lawrence ☎ (02) 4965 6110
Email: president.aps.newcastle@gmail.com
Secretary: Maree McCarthy ☎ (02) 4943 0305
Email: secretary.aps.newcastle@gmail.com
Meetings: The Wetlands Centre, Sandgate Rd,
Shortland
1st Wednesday of the month at 7.30 pm
(excluding January).

Northern Beaches

President: Conny Harris ☎ (02) 9451 3231
Email: conny.harris@gmail.com
Joint Secretaries:
Lynne McNairn ☎ (02) 9982 7964
Julia Tomkinson ☎ (02) 9949 5179
PO Box 393 Dee Why NSW 2099
Meetings: Stony Range Botanic Garden, Dee
Why. 1st Thursday of the month at 7.15 pm
(Feb-Nov).

North Shore

President: Barry Lees ☎ (02) 9653 3691
Email: barrylees99@bigpond.com
Secretary: Sue Bowen
PO Box 141 Roseville 2069
Email: secretary@blandfordia.org.au
Meetings: Willow Park Community Centre,
25 Edgeworth David Ave, Hornsby.
2nd Friday of the month at 8 pm (Feb-Nov).
Website: www.blandfordia.org.au

Nowra

President: Lesley McKinnon ☎ (02) 4443 4004
Secretary: Gwen Smith ☎ (02) 4443 3497
PO Box 140, Sanctuary Point NSW 2540
Email: rapidpulse@bigpond.com
Meetings: Nowra Town Band Hall,
174 Kinghorne St, Nowra. 2nd Thursday of the
month (Feb-Nov) at 7.30 pm sharp.

Parramatta and The Hills District

President: vacant
Secretary: Brodie Sutcliffe ☎ (02) 8809 0833
Email: brodie.fuller@hotmail.com
Meetings: Bi-monthly meetings 2 pm on 4th
Saturday of Feb, April, June, August, Sept and
Nov at Gumnut Hall, Gumnut Place, Cherrybrook
Website: www.apsparrahills.org.au

South East Region

President: Margaret Lynch ☎ 0408 447 678
Email: yaraan@southernphone.com.au
Secretary: Michele Pymble ☎ (02) 4473 8587
Email: mishpymble@gmail.com
Meetings: At various locations, generally on
1st Saturday of every month except January.
Contact President or Secretary.

Southern Highlands

President: Wendy Johnston ☎ (02) 4883 6376
Secretary: Jane Pye ☎ (02) 4862 3750
Email: iandjpye@gmail.com
Meetings: CWA Room, next to council building
in Elizabeth St, Moss Vale. Bimonthly at 2 pm on
the 1st Thursday of February, April, June, August
and November.

Southern Tablelands

President: Bob Galland ☎ 0407 248 154
Email: rcgalland1@bigpond.com
Secretary: Gudrun Delbridge ☎ 0417 651 811
Email: gudrun.delbridge@gmail.com
Meetings: Only when essential – our group is
concentrating on walks and other activities.

Sutherland

President: John Aitken ☎ (02) 9589 1363
Email: jeaitken@gmail.com
Secretary: Leonie Hogue ☎ (02) 9528 6083
Email: leoniehogue@gmail.com
Meetings: Gymea Community Centre, Gymea
Bay Rd, Gymea. 3rd Wednesday of the month
at 8 pm (February–November).
Website: www.sutherland.austplants.com.au/

Tamworth

President: Matt Cosgrove ☎ (02) 6765 2693
Email: cosgrove72@bigpond.com
Secretary: Kerrie Gray ☎ 0427 652 986
PO Box 1193, Tamworth NSW 2340
Email: dyso57@bigpond.com
Meetings: Botanic Garden Meeting Room.
10 am on 4th Saturday Feb to Nov. Outings
and field trips at other times – contact the
Secretary.

Celebrating 200 years of native plants in Bathurst

Lyn Burgett, Secretary Central West Group

In 2015 Bathurst celebrated its bicentenary. Preparations for the Central West Group's plant display began 12 months earlier with a request from Bathurst Regional Council to present an event that celebrates 200 years since the European settlement of Bathurst. We saw this as an opportunity to support the local Council and to exhibit the diversity of Australian flora in historical and modern contexts to the local population.

The initiative became '200 Years of Native Plants' – a native plant display to show local wildflowers that were present in the Bathurst landscape in 1815, along with cultivated varieties available today. The display included 200 labelled fresh flowers (endemic and garden types), flowering potted plants, labelled photographs, herbarium specimens, plant lists and information on plants suitable for growing in Bathurst, information on the Australian Plants Society and membership applications, an historical report by Merle Thompson and a raffle. The raffle prize was a beautiful 900 million year old piece of slate engraved with a banksia flower by local craftsman Colin Fenn. The raffle proceeds will be used to enhance a public garden maintained by the Central



Part of the display by Central West Group at Bathurst 200 celebrations (Laney Cooper)



The raffle draw l-r Marcia Bonham (CWG), Cr Monica Morse (Bathurst Regional Council), Gillian Baldwin (CWG), Bruce Mulligan (CWG) (Lyn Burgett)

West Group. The display was held on the veranda of the Bathurst City Community Club on 17-18 October 2015.

To become a Bathurst 200 endorsed event our display needed to provide current and enduring educational significance. The educational value of the display was provided through:

- An extensive display of indigenous plants that provide essential ecological services in the Bathurst landscape. Plants provided food, clothing and shelter for Aboriginal people in 1815 and habitat for native animals and ecological services in 2015.
- Presenting an extensive range of native plants available to gardeners in 2015. The environmental benefits of growing native plants, primarily habitat provision for native birds that feed on garden insect pests, were enthusiastically communicated to visitors. Throughout the event we marvelled at native bees and other insects appearing and busily feeding on nectar in all the flowers.
- A booklet titled 'Native Flora of the Bathurst Region: A Historical Perspective' compiled by Merle Thompson of Australian Plants Society Blue Mountains and Central West Groups was launched and will be made available through a link on the Greening Bathurst website.

Merle's research found botanist Allan Cunningham was the first European to describe native plants in the Bathurst region in 1817. Some plants he recorded and which were included in the display are: *Casuarina cunninghamiana*, *Acacia melanoxylon*, *Ammobium alatum*, *Bossiaea foliosa*, *Bursaria spinosa*, *Daviesia latifolia*, *Leucochrysum albicans*, *Pimelea glauca*, *Phragmites australis*, *Senecio quadridentatus* and *Urtica dioica*.

Most of the garden plants in the display were grown by Central West Group member Fiona Johnson. We are immensely grateful that she shared some of her garden and her plant knowledge with the Bathurst community. Fiona's flowering potted plants contributed beautiful and achievable specimens that were much admired.

Generally the public response was immense surprise at the diversity and beauty of native plants it is possible to grow in Bathurst. The perception is that native plants are difficult to grow, so as APS members we must continue to cultivate them and share our knowledge and passion for native plants.

Congratulations to the Central West Group for participating in Bathurst's 200-year celebrations and bringing part of our beautiful floral diversity to the attention of the Bathurst community.



Visitors enjoying the display on the veranda of the Bathurst City Community Club (Lyn Burgett)

Book Review

The Australian Beekeeping Manual

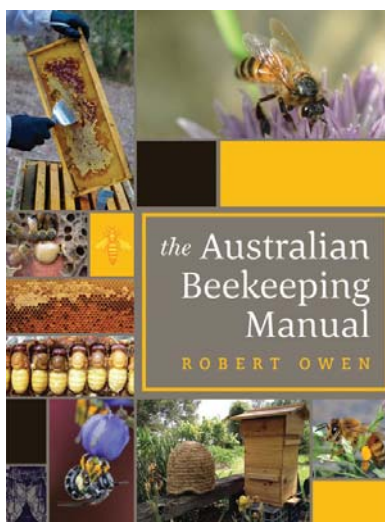
by Robert Owen, Exisle Publishing 2015

Kevin Tuffin is a member of the Blue Mountains Group and an amateur beekeeper. The recent publication of The Australian Beekeeping Manual by Robert Owen has stimulated Kevin to write this article. It emphasises his preference for the less common Warré type hive and also discusses native bees and their importance to our natural ecosystems.

Bees are essential to life on earth: they are the pollinators of much of the flora in forest and field, including the crops we consume. They make the honey we raid for our delectation. Often overlooked in our practical accounting, they pollinate many of the flowers that give us aesthetic

pleasure. But all is not well in arcadia, for a foulbrood is fouling the lives of bees. Around the world honey bee hives are collapsing because of our relentless exploitation. And with drought in Queensland and NSW, Australia, one of the world's top four producers, is currently a net importer of honey, mainly from China – and as the ACCC has found, sometimes with corn syrup as well. This might be a time to consider having a hive of one's own, though the choices to be made all come with a sting.

The Australian Beekeeping Manual by Robert Owen is a convenient place to begin discussing these challenges and choices. It is a true manual with every aspect of beekeeping covered, from the natural history of the bee, the making of a hive, colonising, positioning and transporting hives, the tricks of maximising production, and the techniques of robbing the honey. It includes chapters on native bees and natural beekeeping, and is well illustrated with sequential photographs of practical keeping; and yet, unlike many manuals, it is well-written in concise and flowing prose. Though encyclopaedic, the *Manual's* focus is on the Langstroth hive, the author's preferred hive, and the one most commonly used in Australia to house *Apis mellifera*, the European honey bee. These hives are the little factories from which our commercial honey is taken, and the common hives of the hobby beekeeper.



Paradoxically, the step-by-step photos of beekeeping in Owen's book are one of its qualities and yet reflect an unattractive method of keeping. The photos of platoons of keepers in their white helmeted body suits do not look like amateur beekeepers enjoying a Sunday afternoon in the back garden but emergency workers at an African Ebola pandemic. Here the human evaluation of the bee is on display: a honey-manufacturing proletariat forced to maximise production, and easily replaced when crushed and worn out. Because the bees retaliate against this rough regime the keeper must wear full-body armour. This is a tale of two cities, that of the Langstroth hive and of its competitor, the Warré hive, and no rationalising propolis can bind them together. Owen's *Manual* introduces Warré beekeeping to satisfy the book's brief; David Heaf's *Natural Beekeeping*, on the other hand, is an authority by the English translator of *The People's Hive* by Abbe Warré. The Warré method of beekeeping is best for those who would like a more natural ('natural' here being a relative term) and easily maintained hive in the backyard. It is a handsome domicile, whereas the Langstroth hive looks like a cast-out filing cabinet, congruent with a design to extract maximum production from its work force. The Warré hive has an insulation box and peaked roof on top whereas the Langstroth hive's plain flat lid exposes the bees to rain noise and temperature fluctuations. The 'migratory lid', as it is called, is the most common lid used in Australia, often the only type sold by apiary suppliers, and yet, as Owen admits, it can allow rain to enter the hive. It has been designed for ease of stacking hives for transportation to the nectar fields, not for the security and comfort of bees. There are internal differences too. The Warré, in contrast to the Langstroth, has no bottom bar on the honey comb holder limiting natural growth. The bees make their own combs, choosing the size they want, that



Warré hive in Kevin and Alix's garden (A Goodwin)

hang from top bars and box walls and expand downwards, as they do in tree hollows. Her majesty is not excluded from parts of Her domain by a metal 'excluder' that may injure Her and Her subjects; the use of chemicals to control diseases is generally prohibited, as is the feeding of bees robbed of their winter honey with sugared water. Oversight of the hive is light and the most one has to do is to watch the bees flying out like arrows into the morning sun and returning with nectar and baskets with food for the brood, pollen of yellow and orange. Ideally the Warré hive is opened once a year when the top box is removed for honey. The only essential protection required when working with bees is a veil to protect the eyes (all we use with our Warré bees). Bees should be handled gently and quietly, uninhibited by a body suit that alienates the keeper from her hive. The keeper is then better able to sense the mood of the bees and thus to avoid injuries and disturbances that provoke retaliation. Just as the flat-flushed lid of the Langstroth and the ventilated and insulated gabled roof of the Warré are indicative of the contrasting basal values of the two methods, so too are the different practices and tools. The Warré keeper takes only honey that is surplus to the hive's requirements, whereas Owen admits the traditional Langstroth keeper takes more. Heaf uses a feather to stroke bees off boxes when nading (we use a Sulphur-crested cockatoo feather) whereas the Langstroth folk use long brushes to briskly sweep bees off boxes and frames.

Bees are healthier in the Warré hive because their lives are not subjected to the regime associated with the standard Langstroth metropolis of artificial combs, ongoing maintenance disturbance and rough treatment – swept with brushes, smoked, often crushed, their hives subject to sudden temperature changes, an inadequate diet when robbed of too much honey, and ongoing moving and repositioning of hives. All bees, no matter their city of residence, are subject to garden and orchard pesticides and fungicides that kill them directly or poison them slowly, weakening their immunities and disabling their compasses. Neonicotinoids are not cigarette substitutes but 'neuro-active' insecticides, a new menace invented by corporations that probably poison bees.

In Australia approximately 1600 species of native bees have been identified, fifteen of which live in caste stratified societies like *Apis mellifera*. Australia's social bees or stingless bees do not produce honey in the industrial volumes of the European honey bee and live in the northern and warmer parts of the country. Four species of two genera have been domesticated, genus *Tetragonula*, preferring coastal climates, and *Austroplebeia*, preferring inland drier parts. The colder

the climate the less honey produced and Owen recommends that stingless bees be left with their honey in the Sydney region. The bees should be kept as a contribution to conservation. In Queensland and the Northern Territory, the honey, called 'sugar-bag', which has a strong and tangy taste, can be taken with care each year. The solitary native bee section in the chapter on Native Bees in Owen's book has been written by Erica Siegal and I'm assuming the photographs are hers. They have been taken with a loving eye and show the beauty of the beasts; the photos of the male Blue-banded bees roosting and the hovering iridescent Peacock Carpenter bee are, to my eye, particularly beautiful. The various species of solitary bee can be enticed into the garden with a block of drilled wood, placed high and sheltered and facing to the rising sun.

Everywhere Aborigines sucked flowers for their nectar and took honey where bees were to be found. Grevillia is a good source of nectar easily



11th FJC Rogers Seminar

"Native Terrestrial and Epiphytic Orchids"

Hamilton Victoria

Saturday 8th & Sunday 9th October 2016

Program

Saturday: Full day conference and formal dinner

Sunday: Field Trips to Hamilton, Casterton & Grampians Bushland.

To Register Your Interest ...

Contact Mr Kevin Sparrow

Post: 35 Swan Street, Warrnambool Vic 3280

email: ksparrow93@gmail.com

This seminar will be popular, make sure you get in early.



reached by the passing hand. Flowers soaked in water make a drink of sweet nectar. Honey was essentially a treat, although in some areas such as the Kimberley it might have been an important source of food.

Wax and resin were used to waterproof bags and affix tools. Where entries were narrow and hives deep in the tree, small mops were used to soak up honey and comb; special honey-bags were used to carry home what wasn't eaten below.

Honey bees absconded into the bush early after their assisted passage to Australia in 1822 and are a serious invasive species. Feral honey bees compete with native bees and birds for nectar and tree hollows. Owen writes that 40 to 150 feral colonies of bees per square kilometre were recently counted in a Victorian National Park (though his concern is not with their effect on native fauna). Domesticated honey bees, especially when sited in bush in blossom, intensify the competition for nectar. Wrigley and Fagg write that an astonishing 70 – 80% of honey production is derived from native plants, with the genus *Eucalyptus* accounting for some 70% and Brush Box (*Lophostemon confertus*) between 5 – 17% of that figure. Tim Lowe reports from a field of study that feral bees 'compete so strongly with birds today that one bottlebrush stand lost 30-50% of its honey eaters when bee numbers rose.' He also warns that there is a possible loss of genetic diversity amongst some eucalypts as 'pollen mobility has probably dropped since bees arrived, and may drop further'. Eucalypt and paperbark forests are or were essentially bird-pollinated and birds carry pollen much further afield than the local invasive bee.

The jar of bush-honey on the breakfast table has a high price, one not borne by the human honeyeater, at least not yet. In these dismal times a small compensatory gesture is to invite the native bee into our native garden. (See www.aussiebee.com.au – Australian Native Bee Research Centre)

Other books cited:

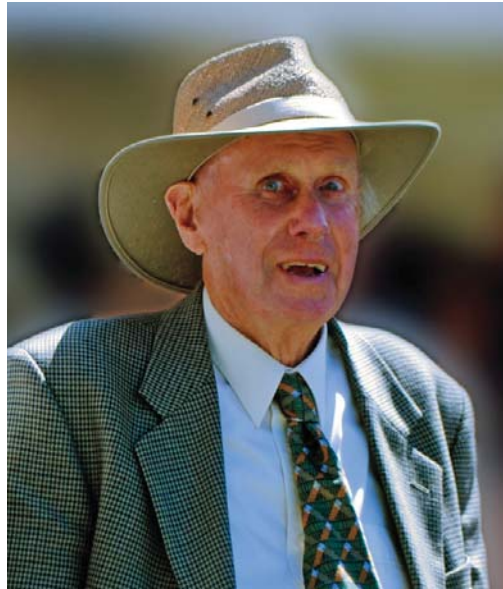
Australian Native Plants, 6th ed., John W Wrigley & Murray Fagg, Reed New Holland 2013

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Where Song Began: Australia's birds & how they changed the world, Tim Low, Viking 2014.

Vale Harry Hamilton Brian

This tribute was prepared by Hugh Stacy with the assistance of other members of APS East Hills Group.



Harry Brian passed away on 10 November 2015, just three days after his 92nd birthday. Harry was the oldest member of the East Hills Group, which he joined in 1971; if the opportunity arose, he was proud to tell new members or visitors that this was the first District Group formed in NSW when the Society for Growing Australian Plants began in 1957. He served on the NSW Council as Company Coordinator and East Hills Group representative for several years and was made a Life Member of APS NSW in 2004 for his services. He also received an unusual award from the National Herbarium of NSW, in recognition of his 25 years of voluntary service there, one day a week, during his retirement: an achievement unlikely to be often replicated.

For years Harry served as East Hills Group newsletter editor. Gradually and unofficially he became group historian and archivist, the reference for events long past. When the committee was planning the group's 50th birthday in 2007 it was Harry, probably aided by his wife Jean, who was able to recall the names and reinitiate contact with early members who had left Sydney. The Brians' personal touch not only made that celebration a wonderful reunion, but was also always inclusive. After losing Jean three years ago Harry lived alone, tending his garden and propagating plants that he still brought regularly to our meetings. Eventually, his eyesight failing, he could no longer fill pots or write

labels and recognised us by our voices only. Yet he always replied with a ready word of greeting, happy to listen to the proceedings, to visualise images as described and plants as mentioned by name; after all, not many were new to him.

One of Harry's many projects was to create a library for East Hills Group. Because the group lacked storage he brought books to meetings in a box, then a suitcase, making them available for members to borrow. Later, needing more capacity, he built bookcase units that he could handle into his car on his own and remove, stack on a carrier and wheel into the meeting. He became the group librarian and provided this service for about 30 years. Aware of the paucity of books on Australian wildflowers during 1960 to 1990 and provided us with much of what was available, including our Society's own publications. Is the internet equivalent?

Harry grew up on a farm at Allan's Flat (via Wodonga) and rode a pony to school every day. On finishing school he spent WWII overseas, north of Australia in an army ambulance unit. After the war he graduated in science from the University of Sydney and worked with Australian Electrical Industries, then later with the Australian Atomic Energy Commission (now ANSTO) in the radioisotopes division. He often walked in the surrounding bushland at Lucas Heights, one day finding the rare *Melaleuca deanei* nearby. At one stage he accompanied East Hills Group members on full-day excursions in these areas, where there is a site containing Aboriginal rock carvings. He knew well the flora of the Georges River and Royal National Park, where he also led walks. In retirement he worked actively on Bushcare projects in the Bankstown and Strathfield municipalities and was for years well known locally for his extensive plantings of Australian natives on both embankments of the railway line at Yagoona station, near his home.

Many people will miss this quiet, kindly man, unassuming, thoughtful, considerate, who lived for our environment. Let East Hills Group member Karl Schurr's personal tribute speak for others too:

Harry's contribution for me can be summarised by his generosity – his generosity to share his knowledge, his time, his wisdom, his plants and anecdotes with all he came across, both within the Australian Plants Society and the community at large. Often I would see him with his wheelbarrow and tools heading off to Yagoona station to work on the garden he established there. It was his influence which brought me to the East Hills Group to reinforce a delight in Australian plants – for this I will be forever grateful.

Thank you, Harry.

Fire! Fire! Part 4 – Recovery and Regeneration of the Bush

Gwyn Clarke, Coffs Harbour Group

Gwyn and Geoff Clarke live on a property on the back road between Coffs Harbour and Grafton. In August 2014 fire ravaged their property. In the April 2015 issue of Native Plants for NSW, Gwyn described the property and the fire control measures they had undertaken. In the July issue she described the day of the fire. In the October issue she described the recovery of the garden and now in the final instalment she describes the regeneration of the bush on their property.

Today is a grey day at the beginning of another summer. It is 15 months after our fire. From the window I can see *Angophora robur* in full flower down in the bushland. This tree is very popular with the local flying foxes, but I haven't heard them yet. This is its first flowering since the fire so perhaps they were frightened off or injured at that time. I hope they come back. *Angophora robur*, which grows only between Grafton and Coffs Harbour in the sandstone country, is a rare tree and having it flowering so soon after fire is good.



Angophora robur, now the leaves are large and green (G Clarke)

Immediately after the fire in some areas the trees were totally bare of foliage, elsewhere the trees had scorched leaves, and occasionally there was only a blackened trunk. For a couple of weeks smoke rose

from underground where the roots of trees were still burning and later more than a few fell. After about six weeks most of the branches with scorched leaves fell to the ground. It was as if they were preparing for the next fire.

The trees have done very well since the fire. Of course there are still leafless dead branches and even dead trees. There are still trees struggling to produce more leaves after the first ones were damaged or eaten by insects, but on the whole the trees have made a successful recovery.



Ready for the next fire (G Clarke)

I don't believe we've lost any tree species, however we are waiting for the flowering of different species. The only flowering in 2014 was the *Corymbia gummifera* close to the house, as their crowns were not damaged, and a young *Lophostemon suaveolens* just down the road which looked as if it was coming back from a lignotuber. In spring 2015, only *Angophora robur* and a few *Eucalyptus planchoniana* have flowered. Other *Corymbia*, *Eucalyptus*, *Syncarpia* and *Alphitonia* look like taking much longer. *Alphitonia excelsa*, the Red Ash, appears to have come back from the rootstock as they were totally burnt by the fire. These were young plants in the bush near the house and had not flowered. The big *Banksia serrata* and its close relative *Banksia aemula* are recovering. There are some young *B. aemula* and this is a good sign as it is a relict population growing 30 kilometres from the coast. *Banksia serrata* also has young plants growing nearby but there are no flowers as yet. Flowering of the trees before we have any more fires is very important as the seed bank in the soil may have been destroyed.

Allocasuarina littoralis was destroyed by the fire. If it is damaged by machinery it can recover but not when it's burnt. We have seen one seedling close to the house, but it cannot be allowed to grow there as it is much too close. A couple have survived on our neighbour's property but they appear to be males. It will be interesting to see how long it takes the seedlings to appear, and then to flower and set seed. I hope it's before the next fire.

The smaller trees and large shrubs have proved they too are used to fire. I was most surprised to see *Persoonia stradbokensis* grow from seed to a small tree about 3 metres tall in 15 months. *Ceratopetalum*

gummiferum is recovering but not as quickly as the *persoonia*. *Hakea sericea* was killed by the fire, but in spite of the Black Cockatoos' feast after the fire there are still plenty of seedlings about. *H. sericea* doesn't appear to be long-lived in our difficult terrain. It usually grows quickly and produces lots of fruits and then dies. I have never seen one grow more than 4 metres high by 1 metre wide here. In Canberra they became much larger bushes and lived for years. It must have been the clay soils.

We have two *Leptospermum* and one *Melaleuca* species. All were burnt but have recovered and flowered since the fire. *Jacksonia scoparia* which is often seen flowering along the roadsides here has also recovered and we have had a plant come up in the garden. They also have flowered since the fire. Mountain devil or *Lambertia formosa* didn't take long to recover and flowered this spring. While it is a very prickly plant I enjoy its bright flowers and woody seed containers.

Then there are the acacias. *Acacia complanata* is one of my favourites. It has flattened stems that zig-zag at the ends and golden flowers. It grew quickly from seed and some half burnt plants recovered. All flowered in the October following the fire and then again in autumn and again this spring. All the other large acacias have recovered or grown again from seed and flowered except *A. disparrima* which has come back from seed but not flowered yet. This is quite a large acacia and related to one growing in the Northern Territory.

There are many **medium to small shrubs** in the bush, some of which I have mentioned in earlier instalments. One rare plant is *Homoranthus floydii*. We had not seen this plant until 2003 although we regularly walked in the rocky area in which it appeared. Our first thought after the fire was 'Would it disappear because of the hot fire in its area?' We kept checking, but it was only recently that it reappeared and with a most unlikely friend, a plant we had never seen growing on the block before. In the past there were two large bushes growing on the top of a rock in leaf litter that had settled in hollows. This rock was called 'Frog Rock' and besides having the homoranthus it also had a fern *Platycerium bifurcatum* or Elk Horn. Unfortunately the fern was killed by the fire and a prickly wattle, *Acacia ulicifolia*, had taken up residence. In early November Geoff found some young seedlings of *H. floydii* growing on the rock and with them were about a dozen *Caleana major*, Large Duck Orchids. We have never seen them anywhere in our area and were most surprised and pleased to see them there. We scouted around the area near the rock and found many more *H. floydii* in more congenial conditions, but no more duck orchids.



(L) Found at last, *Homoranthus floydii* definitely not a show off

(C) Our new find, *Caleana major*

(R) New growth in the *Doryanthes* after the fire

After the fire the young grass trees were the first plants to show signs of recovery with small bright green shoots appearing at the top of the blackened trunks. It was a surprise to see so many grass trees as most had been obscured by the canopy provided by the larger shrubs. In fact **the tufty plants** came back quickly and helped retain the soil when we had heavy rain. In our garden it was the kangaroo paws, lomandras and dianellas. In the bush it was little *Lomandra filiformis* which grew like patches of grass and *Chrysocephalum apiculatum* which decorated the road verges. The tufty sedges were next, followed by the grasses, other herbaceous species and then the small woody shrubs.

Some areas where the fire had been more intense were very slow to recover. Even now there are some bare patches. *Doryanthes excelsa* is our largest tufty. It recovered from the fire with the leaves that were scorched continuing to grow and then new leaves coming up beside them. This year they have flowered better than I have ever seen them. Instead of one or two flower spikes per clump I found one with eleven flower heads. They started flowering in October but new flower heads are developing all the time. I don't know whether they'll stop developing because of the warmer weather or just continue on. Walking in the bush



So many grass trees return



Lots of flower spikes

you can see their showy red heads all over the place. I may never see it quite like this again.

We have often been asked if any **orchids** grow in our area. Well, there is *Cymbidium suave* which likes to grow in the tops of dead *Melaleuca sieberi*. *Dendrobium kingianum* once hugged the rock overhangs and we are returning these on our property as it is likely they were removed during the period when the area was logged before it was subdivided. Our neighbour has found a few left on his place. We have also found some ground orchids, but they are irregular flowerers. They include a group of *Calochilus grandiflorus*, a large bearded orchid with many flower heads, growing on a grassy area at a lower elevation. *Thelymitra*



Eleven flower
spikes on
one clump of
*Doryanthes
excelsa*, WOW!
(G Clarke)

purpurata grows in a similar area. This was only one plant. *Thelymitra pauciflora* grows in a few different places. We have not seen any of the orchids since the fire, and it has been impossible to determine what triggers them to grow and flower.

Many local **ferns** were killed by the fire. Unwittingly we had provided a new home for a couple of them behind our shed in ironstone gravel which was laid to form a base for the concrete floor. *Gleichenia dicarpa* and a *Lycopodium* species, which is a fern ally, migrated before the fire, enjoying a spot behind the garden water tank which conveniently puts its overflow near them. These plants were killed by the fire in their old home, but they haven't left the area. Other small ferns do occur under rock overhangs and *Calochlaena dubia*, the common ground fern, is part of the grassy understorey. In some spots it was the first plant up, covering quite large areas and helping stabilise the soils.

There are so many plants on the block that they cannot all receive a mention here. As I look through the plant list I find there are a few I have not seen since the fire. This may be because I have not walked in the right places or because they are small and difficult to see. One I have missed is *Schizaea dichotoma*, a fern that likes to grow under *Banksia oblongifolia*. We first came across it when we were clearing an area to build the shed. It divides its fronds and doesn't look much like a fern. We hadn't been very used to ferns in Canberra, but as soon as it put up its fertile fronds we knew it was a fern and could check it out in the *Flora of NSW*. Its common name is the Branched Comb Fern.

Fire is scary, but it is beneficial to many of the plants. The flowers are bigger and more colourful thanks to the ash that is everywhere. The plants thrive on the nutrients released during the fires. There may be need for fire from time to time but it is important that fires are well spaced and not too hot; otherwise it is more than likely that species will be lost. We have had to learn to respect fire, to use it wisely when needed and to look after our property so it will not be a danger to other people or the environment. We enjoy living where we do but we have the greatest respect for fire and if there's ever a warning for an extreme or catastrophic fire we know we'll have to leave our home. Perhaps that day will never come for us. Here's hoping.

I'd like to take this opportunity to thank Gwyn for this series of articles recording her experience of bush fire. It is a real and constant threat in many parts of Australia. APS members are fortunate to get a first-hand account of this nature. Geoff and Gwyn were lucky, their house was saved and no lives were lost, but they were well-prepared and ably assisted by the RFS at the critical time. -Ed

New members January 2016

Merle Thompson, Membership Officer

The Australian Plants Society NSW warmly welcomes the following 43 new members (34 memberships) and wishes each of you a long, rewarding and enjoyable association with the Society.



Stevie Armstrong	Bathurst
Christine Belshaw	Blaxland
Brett Coble	Tamworth
Sherrie Cross	Wentworth Falls
Mercy de Oliveira & Damien Bowness	Bullaburra
Cath & Huntley Gordon	Armidale
Kylie Hanks	Berowra
John & Belinda Hanks	Vittoria
Warren Harvey	Mudgee
Clare & Simon Hawse	Vaucluse
Frederick Janes	Bullaburra
Margaret Jones	Chittaway Bay
Diane Elisabeth Kajons	Kelso
Timothy Kolaczyk	Inverell
Andrew Kollosche	Armidale
Deborah Macpherson	Breadalbane
Scott & Kym McKinnon	Glenbrook
Kathy McMahan	Kelso
Andrew Nelson & Barbara Behdanowicz	West Chatswood
Tegan Owen	Campsie
Meredith Peach	Moss Vale
John McTaggart Pryde	Chatswood West
Tom Ravese	Edensor Park
James Sen Gupta	Riverwood
Loretta Jane Smith	Eglinton
Peter Steele	Balgownie
Tony Stuart & Jude Bertolin	Bathurst
Helen Sutherland	Tamworth
Vianne Tourle	Bathurst

We welcome back the following former members

Annabelle Greenup & Anthony O'Halloran	Binnaway
Peter & Linda Mair	Tipatallee
Mike Perabo	Helensburgh
Jo Walker	Bowral
Norm Werner	Kurri Kurri

Vale

It is with sadness that we learnt of the deaths of **Ken Arnold** of the Macarthur and previously Blue Mountains Groups, **Harry Brian**, Life Member of APS NSW and member of East Hills Group and **Deirdre Stuebe** of the Central West Group. The Board extends condolences to their families and friends.

Wanted – an accountant to review APS NSW accounts, April 2016

We are seeking a practising accountant to review APS NSW financial accounts in the first week of April on a pro bono basis. The accounts will be prepared for review by our office manager, Sharlene Cormack, who is a qualified bookkeeper.



As a Tier 1 company under the Australian Charities and Not-for-profits Commission we are not required to have our accounts audited but it is important that they are reviewed by an independent person to ensure transparency for our members. Our current accountants estimate that this should take no more than 5 hours.

If you are able to help us, could you please contact John Aitken, President APS NSW on 0458 366 022 or Sharlene at the office on 9631 4085 or office@austplants.com.au .

Cover images

Front Cover

Photo taken by Megan Wake.

Swainsona formosa (Sturt's Desert Pea) and native daisy believed to be *Rhodanthe floribunda* (Common White Sunray) at Roxby Downs in South Australia at the end of August 2015.

Back Cover

Photo taken by Wendy Grimm.

A splendid example of bonsai using an Australian native plant.

Melaleuca raphiophylla (Swamp Paperbark from WA) grown by Derek Oakley at the National Bonsai and Penjing Collection which is housed at the National Arboretum in Canberra. Yes, it is open to the public.

Plant profile

Callistemon flavovirens

Warren Sheather is well-known to many APS members. He is a member of the Armidale Group and has volunteered to write an occasional column about plants of the New England region. His website www.yallaroo.com.au contains a wealth of information about Australian plants.

The Northern Tablelands of NSW is home to eight species in the genus *Callistemon*. *Callistemon flavovirens* is one of these. It is an interesting species with limited distribution in northern NSW but is more common in southern Queensland. In NSW it grows mainly in granite country in the Tenterfield area but also has a population in the Torrington State Conservation Area. We have observed this bottlebrush growing on cliffs in Boonoo Boonoo National Park, north-east of Tenterfield.

Callistemon flavovirens develops into a stiff, spreading shrub, reaching a height of one and a half metres with a similar spread. The species name means yellowish green and refers to the flower colour. Adult leaves are leathery, dark green, up to ten centimetres long and lance-like with conspicuous oil glands. Young shoots are silky. Leaves are widely spaced along the stems. This wide spacing is reflected in the flower spikes. The individual, yellowish green flowers are also widely spaced giving the spikes an open appearance. Honeyeaters are attracted to the blooms. The woody capsules, following the flowers, are about seven millimetres in diameter.





We have found *Callistemon flavovirens* to be hardy, free-flowering and with low water requirements once established. This bottlebrush, as are all our callistemons, is pruned as the flowers fade. Each branch is cut off behind the spent spikes.

Most of the specimens of *Callistemon flavovirens* preserved in herbaria were collected in southern Queensland. The majority of specimens collected in New South Wales come from the granite outcrops above the falls in Boonoo Boonoo National Park. Only a few specimens were collected in Torrington State Conservation Area where the population is likely to be a different species as the leaves are shorter and narrower and the flower spikes are also shorter and are pale yellow.

Originally *C. flavovirens* was thought to be a variety of *C. rugulosus*. Edwin Cheel (1872-1951) raised this bottlebrush to species level in the early 1920s. He gives an interesting botanical and horticultural history of the species in the Proceedings of the Linnaean Society of NSW for 1925.

The National Herbarium of New South Wales has a series of collections made by J. L. Boorman from Boonoo Boonoo and Stanthorpe. Seedlings were raised from seeds in the collection and grown in a native flower border in the Royal Botanic Gardens and in the 'Native Flora Plantation' at Centennial Park in Sydney.

Cheel also collected specimens from a cultivated plant in a garden in Christchurch, New Zealand, in 1909. So it is apparent that this interesting bottlebrush has been cultivated for many years. It can be propagated from seed or cuttings.

Study Group notes

Wendy Grimm, Study Group Liaison Officer

Presentations and displays by several study groups during the recent ANPSA Biennial Conference in Canberra, as well as an informal evening session, enabled study group members and non-members to appreciate the aims and achievements of the study groups and to meet many of the study group leaders. Look through the Study Group directory to find a group with similar interests to your own. Most newsletters are available in colour via email.



Isopogon Study Group (Sep. 2015, No. 17)

Phil Trickett and Catriona Bate have relaunched the Isopogon and Petrophile Study Group with a comprehensive newsletter. It outlines the group's aims, provides brief accounts of which plants the members are growing in their gardens and is augmented by much of their motivating presentation to the ANPSA conference.

Three east coast species, *Isopogon anemonifolius*, *I. anethifolius* and *Petrophile pulchella* are attractive and hardy plants in their own right, but they also provide reliable rootstocks for grafting the more numerous WA species.

The vulnerable *Isopogon fletcheri* featured prominently in the Save a Species Walk by Royal Botanic Gardens staff to raise funds for the



Colourful bunch of
Isopogon flowers
(Catriona Bate)

seedbanking of endangered NSW plant species. Read more at the website www.everydayhero.com.au/event/saveaspecies2015

Past issues of the newsletter are available at anpsa.org.au/iso-pet.html

Eucalyptus Study Group (Aug. 2015, No. 64-65)

Madagascar has many species of planted Australian eucalypts, including at least four species from NSW. These eucalypts have been described as weeds but their harvesting has helped reduce deforestation of the indigenous vegetation by providing a fast-growing alternative.

An updated online classification of the eucalypts (2015) by Dean Nicolle is available at: www.dn.com.au/Classification-Of-The-Eucalypts.pdf

Acacia Study Group (Sep. 2015, No. 130)

Small-growing wattles suit the trend towards smaller gardens and courtyards in our homes and public spaces. Dwarf cultivars of *Acacia cognata*, *A. pravissima*, *A. williamsonii* and the infrequently cultivated *Acacia gordonii* are examples of small but floriferous wattles. Study Group Leader Bill Aitchison lists 59 small species, but found that the majority of the species were not available commercially.

The newsletter also depicts a jig used to scarify hard-coated seeds prior to soaking and sowing. It was designed by a Victorian member.

Acacia seeds are available to study group members.

Epacris Study Group (Oct. 2015, No. 40)

Sincere thanks go to Gwen Elliot who has led the Epacris Study Group since 1998. An index of *Epacris* species profiles from previous editions is included in Gwen's final newsletter. The study group went into recess in November at the Biennial Conference of ANPSA.

Fern Study Group (Jun. 2015, No. 133)

The Fern Study Group has regular excursions in Sydney, in south-east Queensland and in north Queensland to learn to identify local ferns. Ferns are often in the 'too hard to ID' category on APS walks but taking part in Fern Study Group outings can help remedy this situation.

Fern Study Group (Oct. 2015, No. 134)

The first 2016 Sydney meeting will be held on 20 February at Mt Druitt. 'Australian' *Adiantum* cultivars are listed in this issue.

A tropical fern key is being worked on at CSIRO Australian Tropical Herbarium at James Cook University in Cairns and it will be tested by Fern Study Group members.



Members of the Fern Study Group who are based in North Queensland standing in front of the Giant Scrambling Fern, *Diplazium longissimum* (Eric Coomber)

Grevillea Study Group (Oct. 2015, No. 202)

An article by Peter Olde on *Grevillea buxifolia* and the Carpenter Bee explores evidence of a possible pollination relationship between these two taxa and a second article reviews recent papers about grevillea-related bees.

Jenny Liney's delightful report of how a white form of a grevillea was found near Deua National Park inspires us to 'cut across all the corners through the bush' on occasions to discover the unusual.

Brian Roach constructed a bee hotel by packing a moist mixture of 80% river sand and 20% clay into the base of eight forestry tubes. Tunnels were formed by poking a pencil two-thirds of the way into the mixture. It took three weeks for several blue banded bees to move into the tunnels and they are frequenting a nearby *Grevillea* 'Lady O'.

Garden Design Study Group (Nov. 2015, No. 92)

Ros Walcott describes a series of plants including pandoreas, hakeas and acacias in which the contrast between flowers and foliage catch the eye.

Five new, small gardens in The Australian Garden at Cranbourne south-east of Melbourne, were described and assessed by the Victorian



The bee hotel newly installed and ready for occupants (Brian Roach)

group. The gardens that most closely mimicked nature were rated most highly by the study group members.

Hakea Study Group (Oct. 2015, No. 59)

Warm-climate hakea seeds will germinate quickly if kept above about 22°C and placed between moist sheets of paper towel inside a plastic bag. Cold-climate seeds placed in vermiculite will germinate in lower overnight temperatures.

Eremophila Study Group (Nov. 2015, No. 112)

The featured species, *Eremophila latrobei*, is a widely distributed species found from Western Australia through to NSW. Superb images of each sub-species are accompanied by descriptions of their characteristics, distribution, propagation and horticultural requirements.

Great Native Plant Photos

Many APS members are keen and capable photographers. This journal needs good quality images to adorn its pages. If you have outstanding photos of native plants please share them with other members by contacting the editor via the office. Several members have already provided great photos that members have been enjoying in the pages of *Native Plants for NSW*.



Study Groups directory

Fees are listed as Australia/Overseas/Email

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Waratah and Flannel Flower (free)

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The following study groups are all in recess and require new leaders. If you are interested in a role contact the APS NSW Study Group Liaison Officer, Wendy Grimm at wagrimm@tpg.com.au

Australian food plants**Australian plants for containers****Calytrix****Daisy, the Australian****Epacris****Fabaceae****Hibiscus and Related genera****Orchids, Indigenous****Palm and Cycad****Prostanthera and Westringia****Rhamnaceae****Succulents, Native****Verticordia****Wetlands (and Water Plants)****Wildlife and Native Plants**

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Discounts are available from the following organisations to Society members who present their current membership card.

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⊗ **All GreenGold Nurseries**
5% discount, except on landscape materials, garden design services or discounted merchandise.

⊗ **Florilegium**
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☎ (02) 9571 8222.
Mon–Sat 10am–6pm, Sun
11am–5pm.

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www.sydneywildflownursery.com.au
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Armidale 2350
Open by appointment only
☎ (02) 6775 1139
0421 961 007
Email: maria@coolnatives.com.au
www.coolnatives.com.au
10% discount

Blue Mountains

⊗ **Glenbrook Native Plant Reserve Nursery**
Great Western Highway,
Glenbrook 2773
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Sat, Sun, Wed. 12 noon–4pm.
10% discount to members,
20% for roster participants.

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⊗ **The Wildflower Place**
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Erina Heights 2260
☎ (02) 4365 5510
5% discount

Central West

⊗ **Wombat Gully Native Nursery**
1729 Cocks Creek Rd, Rylstone
☎ 6379 6202
10% discount

Hunter Valley

⊗ **Muswellbrook Forest Nursery**
New England Highway,
Muswellbrook
☎ (02) 6543 2622
Email: mfn@hlmaus.com.au
www.muswellbrook
forestnursery.com.au
M–F 8.30am–4.30pm
Weekends 10am–3pm
10% discount

Nepean Valley

⊗ **Darvill Nursery**
Darvill Rd, Orchard Hills 2748
Contact for price list or
arrange to visit beforehand
☎ (02) 4736 5004
www.darvillnursery.com.au
10% discount

Newcastle

⊗ **Leearne Neal at Newcastle Wildflower Nursery**
260 Lake Road, Glendale 2285
☎ (02) 4954 5584
Open 7 Days 9am–5pm.
10% discount

North Coast

⊗ **Bonny Hills Garden Centre,**
1055 Ocean Drive,
Bonny Hills 2445
☎ (02) 6585 5764
10% discount on all plant
purchases

⊗ **Greenbourne Nursery**
Oxley Hwy, Wauchope 2446
(opp. 'Timbertown')
☎ (02) 6585 2117
10% discount

Mildura

⊗ **Native Nursery, Mildura**
10% discount on the
purchase of any native plants
or other products, including the
Watertube ordered online at
www.nativenursery.com.au

South Coast

⊗ **Wildgems Native Nursery**
Illawambra Valley Road,
Yowrie 2550
☎ 0427 937 398
Wholesale / retail nursery.
Please ring and arrange day
before arriving.
10% discount

⊗ **Verdigris Fern Nursery**
Currowan Creek 2536
Mail order is available through
the website which includes
useful information on fern
cultivation. The nursery is
open by appointment.
☎ (02) 4478 1311.
Email: verdigrisferns@gmail.com
Wholesale price for APS
NSW members

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Conservation Officer	Dan Clarke
Study Group Liaison Officer	Wendy Grimm
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Website managers	Mark Abell and James Ward

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John Aitken, John Andrews, Rhonda Daniels, Alix Goodwin, Mary Hedges, Graeme Ingall, Harry Loots, Tony Maxwell, Roger Starling, Richard Street and Merle Thompson.

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