Crowea exalata ssp magnifolia
image by Maria Hitchcock

Australian Plants Society
Armidale & District Group

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Spring Edition 2019 - 3

Scarlet Honeyeater on Grevillea

In This Issue

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President's Message

by Barbara Nevin

Last Comments from your President

We come to our last newsletter for 2019 and quite frankly nothing has changed. We are still in drought and we need the heavens to open up for quite some time.

Our gardens are dying and especially the natives which has caused a lot of conversation with many people that I come in contact with. Apart from the climate we need to be aware that some of those plants need regular watering (eg Banksias), so we must expect them to turn up their toes if this does not happen regularly. Time will tell what will survive so we will just have to plant more of those survivors. Just remember that where dead plants have been removed it makes space for a new plant to be planted.

Talking about how brown it is here, we have just returned from a week in the Ovens Valley, in Victoria. GREEN, GREEN, GREEN and lots of water (you know that wet stuff that falls from the sky). It was beautiful. John enjoyed walking in the mountains and I enjoyed just puddling around town .

Now some serious stuff. Our **AGM is on 16 November** and we need some new people on the executive, mainly a President, Treasurer and Secretary if possible . Please consider taking on one of these or any other positions as they will all be declared vacant. The original people will be around for any help if needed.

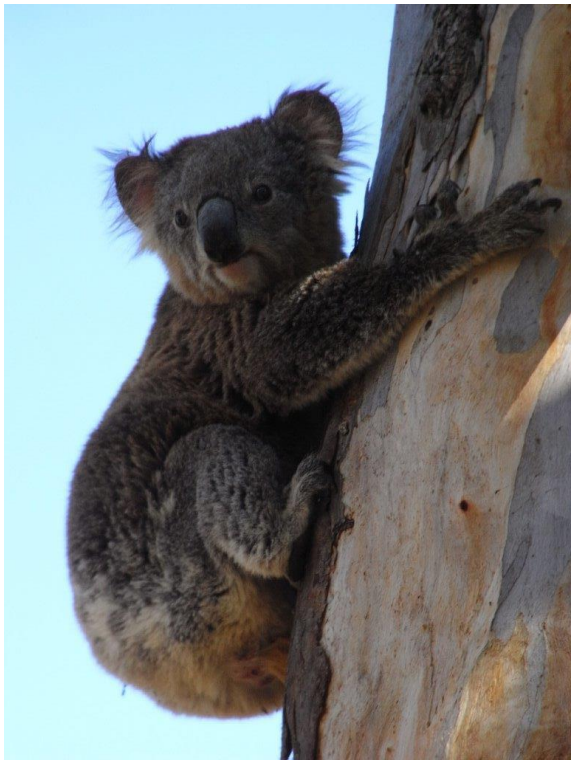
Please let either Penelope or myself know if you can help.

Now about our Seminar in September 2020. I have not had any volunteers come forward to help with the organising of this. We have asked Attila Kapitany, a specialist in Australian Succulents, to come along. Please help as many hands make light work.
However you can, please enjoy your gardens and keep positive.

Barbara

Koalas in the Armidale Area

by **Julia Rose**



At our forum held on the 17th August, a group of speakers discussed various ways in which native plants together with the habitat could support the survival of local koala populations.

Elizabeth O'Hara from the Wildlife Habitat Group (*WHG*) spoke about the new group which was formed to preserve wildlife habitat through a focus on iconic species preservation, initially to be the koala, within the urban and peri-urban areas of *Armidale*. A planned subdivision brought together residents and friends to protest about known koala habitat trees being removed. As pressure increases on native populations through climate change and land-clearing for housing and agriculture, WHG hopes to work to inform and educate about the importance of conserving our native fauna and flora through strategies such as the Council's register of koala sightings and the development of a regional Koala Plan of Management. An immediate achievement has been to co-operate on the Edgar Lane development to achieve protection of koala preferred trees and a satisfactory outcome for all concerned. There is also interaction with the Angophora Reserve Group and Sustainable Living.

Julia Rose gave a wildlife carers perspective on the movement of koalas through Armidale including regular sightings of movement from Mount Duval through UNE and Rockvale Road areas. There is also an educational role in reassuring residents that koalas are happy up trees in a backyard as long as dogs are restrained. They will simply move on after a day or so. Any with a "wet bottom" do need help as soon as possible. Also any with eye infections, ears well forward or even sitting quietly at the bottom of a tree.

In current conditions it is helpful to make a small amount of water available. Although koalas usually get enough moisture from leaves (which usually contain half moisture), in drought leaves are struggling to sustain themselves. Already 76% of populations around Gunnedah have thought to have been lost due to heat so any help with hydration can be worthwhile.

Plantings of koala friendly trees might include *Eucalyptus nichollii* and *E. acaciiformis* and where space allows *E. viminalis*, *E. blakelyi*, *E. melliodora* and *E. tereticornis*. A more complete list is available from the Koala Foundation and ARC website.

Helen Stokes is a resident with a passion not only for the Angophora Reserve but in extending local walks surrounded by native vegetation. Any improvement to the ecosystem indirectly supports koalas. Currently she is working with Council to create a public walkway along Translator, Platform and Kelly's Plains roads. This track will be ideal for replanting with a range of wattles, hakea, casuarina and grevillea when the season permits. It goes to show that an individual can make a difference.

Tim Collins is a PhD candidate in the Botany Department at UNE having recently worked on *Eucalyptus*, as reported in a recent newsletter. He has also been actively involved in landscape management issues at UNE. With the death of a child in a NSW school ground only a few years ago, there has been increased pressure on management of educational institutions to minimise risk. The UNE campus contains a number of mature trees including *E. viminalis* which is an important species for koala. As the UNE campus happens to be located on a key corridor between Mount Duval and the national parks in the south east there has been an increasing tension to accommodate the needs of all parties. Hopefully with lateral thinking a compromise can be reached. There is already suggestions of planting a range of native species under mature trees which would deter people from areas at risk of falling branches.

The National Herbarium of New South Wales is imaging 1.4 million specimens in the Herbarium collection ahead of its move to the Australian Botanical Garden, Mt Annan in April 2021. This is the first project of this scale to happen in the Southern Hemisphere.

We need your help to prepare them for the digitising process!

By volunteering you will have the opportunity to see our incredible collection up close and meet expert plant scientists. There are two sessions per day (morning and afternoon), with each session running for approximately 3 hours in length.

If you would like to help and gain valuable experience, please contact Melissa Wong on melissa.wong@rbgsyd.nsw.gov.au with your availability and contact details.

Editor's note: For the past decade or so I have been working one day a week as a volunteer at the University of New England Herbarium. My role has been to photograph the specimens in the collection so that we have a digital image of each one.

With the advent of the digital age and the internet, many museums and institutions that house important items are now putting as much as possible on the internet. The result is that from our homes we can now sample all that is in those collections without having to go there and be physically present.

UNE is ahead of the pack in this endeavour and will have the collection data and a digital image of each specimen in its collection available on line to access from home. This is a great advance for those interested in plants.

If you are in Sydney on a regular basis, you may like to work as a volunteer at the National Herbarium of NSW. Then give Melissa Wong an email and get involved. It is a great way to learn more about plants. Their collection houses many of the type specimens collected during the early stages of European settlement. The Professional Botanists are very generous in sharing their knowledge and expertise with those having a shared passion for plants.

Arboretum Report October 2019

by Pat Laher

Members would be aware that we have been using the dam water at the Arboretum to water the plantings that were commenced in December last year. However, since Armidale went on Level 5 water restrictions at the beginning of October this year, we are now not permitted to use this spring fed dam water as it is being allocated for use in the construction of the new Armidale Secondary College.

But we are allowed to use bore water, which is being supplied by Colin Wilson and for which we are very grateful. At the first October watering bee, we discovered that the three plants of *Euc. albida* had been stolen. This species is a very attractive blued leaved mallee from W.A. The person responsible for this event had nicely folded the removed protective green plastic bag surrounding the plant and placed it in the hole of the missing plant with a rock on top to prevent it from blowing away! A W.A. hakea had also been stolen at an earlier time. We needed a second October watering bee to complete the watering and at the same time, we replaced the 4 plants dug out and one of two other dead species.

Hard at work at the Arboretum transporting water from the spring fed dam

Currently we water about 41 plants, the majority of which are attractive small growing Eucalypts. The December plantings in particular are looking very good, as some have either doubled in size or produced good new growth. It currently takes our wonderful members about 2 hours to water the plants each month and each plant receives about 7 litres of water. As of next month, we will only need to have one watering bee per month as Colin has kindly offered the use of a large water barrel on his trailer to supplement the current 10 plastic drums used for watering. I will supply a list of plant species at a later date.

Most of the established Arboretum plants seem to be coping with the extreme dry except for the tree form of *Banksia marginata* and several *B. integrifolia* forms. I suspect that we will lose these plant species as members have lost them in their gardens. The dry has not affected the beautiful pink flowering forms of *Euc. sideroxylon* nor the various flowering species of *Eremophila*.

Winners of the Australian Plants Award 2019 at ANPSA

Every two years two medals are given in association with the ANPSA Biennial Conference, one in professional and one in amateur category. The “amateur” is not intended to signify less valued or amateurish. On the contrary, the recipients invariably are people, who have unstintingly given their time and made significant contribution in the area of their interest and expertise.

This year’s winner in the **professional category** is **Professor Kingsley Dixon** from Western Australia. He is a John Curtin Distinguished Professor in the Faculty of Science and Engineering in the School of Molecular and Life Sciences. The title of John Curtin Distinguished Professor is Curtin University’s highest honour for academic staff. Professor Dixon has a long list of memberships and positions held in organizations, both international and local. These include being a foundation member of Cambridge Coastcare and long serving committee member.

His research has resulted in WA being recognised as an international hub in mining environmental science. His enthusiasm for working with the mining industry in WA to promote excellence through science in minesite rehabilitation is most recently demonstrated by leadership of the $5.3M BHB Billiton sponsored Restoration seed bank initiative, Directorship of the ARC Center for Mining Restoration and recipient of the Golden Gecko Awards for Environmental Excellence.

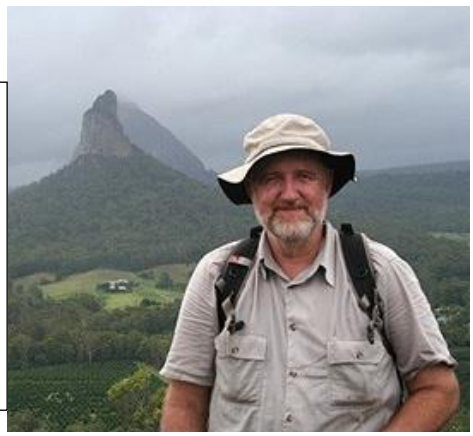
He has published 319 scientific works, including eight books. He has received numerous awards, including the Linnean Medal for Botany in 2013.

Professor Dixon’s achievements include participation in the team at UWA and Murdock University in the breakthrough discovery of the chemical in smoke responsible for germination of many Australian plants. His international profile in seed science and biology is world class and demonstrates how seed can be used to optimise restoration benefits that have resulted in broad suite of industry and research support amounting to 25 industry and 16 nationally competitive grants.

Professor Kingsley Dixon (L)

Glenn Leiper (R)

with Mount Warning in background



The winner in the **amateur category** is **Glenn Leiper** from Queensland. He has made an outstanding contribution to the study , propagation and conservation of Australian native plants, with emphasis on plants indigenous to the South east region of Queensland. Glenn began his career as a primary school teacher culminating in his appointment as the teacher in charge, then principal of the Jacobs Well Environmental Education Center in the early 1980s. Since his retirement he has been able to focus on his passion for native plants. Together with co-authors Jan Glazenbrook, Denis Cox, and Kerry Rathie, Glenn has produced a comprehensive and user-friendly field guide to the native plants of South East Queensland, 'Mangroves to Mountains'. The second edition, containing 200 species additional to the original, was released in 2017. As well as being a field guide, Mangroves to Mountains is a record of the native flora of the region, featuring Glenn's spectacular photographs. Over 25 000 copies have been sold, reflecting its popularity with native plant enthusiasts.

One of Glenn's greatest achievements is the rediscovery and passionate protection of the thought-to-be -extinct Angle-Stemmed Myrtle (*Gossia gonoclada*). Charles Stuart first discovered *Gossia gonoclada* in Mogill in the 1850s. It was thought to have gone extinct in the 1880s. Glenn Leiper and Janet Hauser rediscovered the species in December 1986, stimulating interest in searching for more populations. Glenn also discovered populations of *Gossia gonoclada* at an area now known as Murray 's Reserve. Glenn then went on to advocate for Murray's Reserve to be purchased by Logan City Council in the 1990s. Glenn has also made significant contributions to the development of botanic gardens in Queensland. He has collected and donated over 100 rare and threatened species to the Brisbane Botanic Gardens.

Glenn maintains strong links with the local community through his work with Environmental Services Officers from the Logan City Council. Glenn joined SGAP QLD (Society for Growing Australian Plants, Queensland Region)-now called Native Plants Queensland- in the early 1980s. He is currently a Regional Councillor and the Conservation Officer. He joined the Logan River Branch in 2005 and has made a significant contribution, serving as secretary from 2011 to 2017. He frequently provides articles to the quarterly NPQ journal, always illustrated with numerous photographs.

Drought Surviving Plants

By Penelope Sinclair

Our home is halfway up South Hill in Armidale. Up to the beginning of October, I kept a tally of plant performance in the drought. Because all gardens have different conditions and microclimates, I find it difficult to advise on all gardens.

One needs to remember that "Drought tolerant plants" do not achieve their full tolerance until they become established, which may take 2 seasons. Any plants under stress from other causes (eg soil problems) will suffer more with the added effect of dry conditions. Until early October we had the benefit of relatively cool weather - heat stress will make a difference.

These plants may not be looking their best and the spring blossoms have been short lived but the plants have survived to date and hopefully will survive until our rains come.

The oldest plants in my garden are 2.5 years old. Younger plants were watered through the dry months by hand until the water restrictions came in. After the start of Level 5 restrictions, the newest plants have received approx. 1/3 bucket of greywater about once a month.

Trees

Acacia rubida, A. convenyi. Eucalyptus foresterae " Little Star", Euc pulverulenta.

Shrubs

Acacia buxifolia, A. fimbriata, A. glaucocarpa, A. rubida, A. subulata, A. triptera, A. viscidula.

Allocasuarina rigida. Allogyne "Natalie Brown". Atriplex semibracteata.

Banksia integrifolia "Angourie".

Callistemon citrinus "Firebrand", Call. "Little John", Call. "Purple Splendour". Call. "Rocky Rambler".

Callothamnus sp. Cassinia sp. Chamelaucium uncinatum

Correa alba, C. *"Country Belle", C. glaba – red, C. glabra – green, C. "Kangaroo Island".*

Dodonea viscosa, Eremophila maculata.

Grevillea bauera, G. 'Copper Glow", G. "Flora Mason", G. "Forest Rambler", G. juniperina,

G. "Robin Gordon", G. rosmanifolia, G. "John Evans", G. "Scarlet Sprite", G. semperflorens,

G. victoriae.

Hardenbergia violacea, Indigophora australis, Leptospermum spectabile.

Melaleuca decussata, M. micromera, M. "Georgina Malloy".

Myoporium montanum, Olearia phylogopappa, O. tenuifolia.

Spyridium scortechinii "Snowballs", Westringia spp.

Ground Cover

Chrysocephalum apiculatum,

Eremophila glabra 'Kalbari Carpet", E*. glabra "Burgandy Prostrate",*

Grevillea juniperina "Molonglo", G. juniperina "New Blood".

Myoporum parvifolium.

Editor's note: What is your experience? I have collated my plant experience with the dry weather and will put it in the next newsletter.

Eucalyptus pulverulenta and Wattle Bird harvesting the nectar in the blooms

Grevillea "Molonglo" with *Myporum parvifolium*

Penelope Sinclair watering her plants:

Olearia phlogopappa and

Chamelaucium uncinatum.

Chamelaucium uncinatum

Name Changes Controversy Continues

by John Nevin

In recent years, with the advances in DNA analysis in assisting with plant studies, a lot of changes in nomenclature have occurred. Sometimes those changes did not occur, as with the proposed transfer of Acacias to Racosperma.

A few years ago, the name Dryandra was dropped, and what were previously known as Dryandra plants were renamed as Banksias. The Australasian Herbaria seem to have accepted this change, but opposition to the change continues.

At the recent ANPSA meeting, a petition put together by Alex George, was presented calling for the reinstatement of Dryandra as a genus in its own right. Alex George did much of the work on Dryandra and Banksia, so his input is not to be easily ignored.

I attach a copy of the petition which is to be presented to the Heads of Australian Herbaria meeting in New Zealand shortly. I must say the change seems to me to have been a "lumping process" that diminishes easily recognised differences between the two previously recognised different genera. The evolution of Dryandra from the Banksia group should still be able to be acknowledged with them being recognised as genera in their own right.

Watch this space – this issue will not go away.

PETITION

To the Council of Heads of Australasian Herbaria

We are writing to request that the decision by Australian herbaria to accept the transfer of all taxa of *Dryandra* to *Banksia* (Mast and Thiele, 2007) be reversed. The transfer was based on the concept that paraphyletic groups are unacceptable. Prior to the acceptance of the transfer there was no in-depth discussion among herbaria and no consultation with the wider community.

In accepting the transfer the herbaria did not follow two of their own guidelines (Entwisle and Weston, 2005) — 2, to minimise taxonomic change, 3, to consider if a group is charismatic or has a substantial "interest group".

Mast and Thiele themselves regarded their transfer with some uncertainty, stating that their new classification was 'the least disruptive option at present'. As is evident from the reaction, especially in Western Australia (where *Dryandra* is endemic), the change has been controversial and confusing.

It has now been shown by Aubert (2015) that 'a strictly holocladic or holophyletic classification advocated by cladists is formally impossible', that 'the biological unrealistic assumptions on which cladism is based … have been empirically falsified', and that paraphyletic groups must be allowed.

Inconsistently, recent proposals to transfer all genera of the Melaleuceae to *Melaleuca*, and *Grevillea* to *Hakea*, similarly based on the rejection of paraphyly, have not been accepted by the herbaria. The case of *Dryandra*/*Banksia* is more clearcut than those two groups.

Moreover, in a recent paper on the aervoid group of Amaranthaceae, Hammer *et al*. (including Thiele) concluded that 'the paraphyly of *Aerva* could be resolved by sinking all aervoid genera into a single genus, the correct name of which would be *Aerva*. However, such a genus would be strikingly heterogeneous, and would necessitate the loss of the largest, most recognisable and morphologically distinctive genus, *Ptilotus*. Given that all clades are morphologically diagnosable, we prefer to split *Aerva* s.l. into the three genera discussed above, viz. *Aerva* s.str., *Ouret* and *Paraerva*. We believe that this generic treatment provides the best taxonomic and nomenclatural resolution of the aervoids, consistent with their phylogeny, morphology and biogeography.'

Despite the claim by Mast and Thiele that the inclusion of *Dryandra* in *Banksia* would lead to increased interest, there appears to have been no significant research on taxa of *Dryandra* as a result of the transfer. Indeed, 12 years on we still have no new infrageneric classification, all taxa of *Dryandra* being placed in a single series, a great loss of information about a complex group of plants.

For scientific rigour and for consistency, *Dryandra* should be reinstated

Australian Native Plants Society (Australia)

Dryandra Study Group of the Australian Native Plants Society

Banksia Study Group of the Australian Native Plants Society

Wildflower Society of Western Australia (Inc.)

Western Australian Naturalists' Club (Inc.)

Aubert, D. (2015), A formal analysis of phylogenetic terminology: Towards a reconsideration of the current paradigm in systematics. *Phytoneuron* 2015-66: 1–54. Published 9 December 2015. ISSN 2153 733X.

Entwisle, T.J. & Weston, P.H. (2005), Majority rules: when systematists disagree. *Australian Systematic Botany* 18: 1–6.

Hammer, T.A., Zhong, X., Colas des Francs-Small, C., Nevill, P.G., Small, I.D. & Thiele, K.R. (2019), Resolving intergeneric relationships in the aervoid clade and the backbone of *Ptilotus* (Amaranthaceae): evidence from whole plastid genomes and morphology. *Taxon* 68: 297–314.

Mast, A.R. & Thiele, K.R. (2007), "The transfer of *Dryandra* R.Br. to *Banksia"* L.f. (Proteaceae). *Australian Systematic Botany* 20: 63–71.

Below is some background on the author of the petition, Alex George - Editor

Alex George AM

Alex George was born in East Fremantle, Western Australia, in 1939 and was educated at Applecross State School, Wesley College and The University of Western Australia, graduating with a Bachelor of Arts in 1963. To this he added a major in Botany in 1964. In 1959 he joined the Western Australian Herbarium as a technician, later taxonomist, and

worked there until 1981. He then spent twelve years in Canberra as foundation Executive Editor of the Flora of Australia project with the Australian Biological Resources Study. In 1993 he returned to Perth to set up his own consultancy as a botanist, editor and indexer, but is now semi-retired. He established Four Gables Press in 2002.

Field work has taken Alex throughout Australia. His plant collections total more than 18,000 and include many new discoveries. His major interests in classification have been Western Australian Orchids, Banksia, Dryandra and Synaphea (family Proteaceae), Verticordia and Calothamnus (family Myrtaceae), and the endemic Australian family Gyrostemonaceae. He has named more than 300 new species and several new genera. He also has a strong interest in botanical history. He has published some 200 botanical papers and (as sole or joint author) 14 books. Besides 14 volumes of the Flora of Australia and 14 volumes of the Supplementary Series to the Flora he has edited 50 books and indexed 27.

In the 1970s he was a member of the Conservation Through Reserves Committee that reviewed conservation reserves throughout Western Australia.

Alex has had a long association with the Royal Botanic Gardens, Kew. He is the only botanist to have served two terms there as Australian Botanical Liaison Officer, the first in 1968, the second in 2004–05. He was President of The Kew Guild in 2010–11.

Alex's other interests include cultivation of wildflowers, conservation, photography, music, travel, reading and aviation (he held a private pilot's licence for 20 years). In 2000–01 he was President of the Royal Society of Western Australia. In 2004 he was awarded the Nancy Burbidge Medal of the Australasian Systematic Botany Society, and in 2009 he was awarded an Honorary Doctor of Science by Murdoch University. In 2012 he became a Member of the Order of Australia. In 2015 he was awarded the Wildflower Society Award of the Wildflower Society of Western Australia.

Alex is the author of many books, including "The Banksia Book", "A Primer of Botanical Latin with Vocabulary", "The Banksias", "Western Australian Plant Names and their Meaning", "Swanning around Perth", "The Genus Banksia L.f.", "Ancient Floras of Western Australia", "Australian Botanists Companion", "A Banksia Album – 200 Years of Botanical Art", "An Introduction to the Proteaceae of Western Australia", "William Dampier in New Holland: Australia's First Natural Historian", "Orchids of Western Australia", "The Long Dry: Bush Colours of Summer and Autumn in South-western Australia". He has edited "Flora of Australia", named over 200 new species of flowering plants and deposited over 12,000 Herbarium voucher specimens of plants

New Species of Phebalium Described

John Nevin

One of the plant groups being studied at the Botany Department of UNE is the Phebalium Group, particularly *Phebalium nottii* and *Phebalium squamulosum*. *Phebalium squamulosum* is the research project for one of the PhD students and she is currently carrying out field work collections across Eastern Australia.

Prof Jeremy Bruhl, Dr Ian Telford and Dr Nick Sadgrove have recently published a paper in which three plants previously called *Phebalium squamulosum subsp. squamulosum* have been raised to full species status in their own right, and quite different to the Sydney form with which they had previously been lumped in with.

All three of these plants grow in our area and we should become familiar with them and, in my opinion, grow them in our own gardens and the Arboretum. I have been growing all three for a year or two and they will survive our winters and put on beautiful displays of flowering in the spring. Hardiness to the current drought conditions needs to be tested and my plants have been grown in pots to this stage and watered regularly, so I cannot attest to their drought hardiness.

The three new species are now *Phebalium graniticola*, *Phebalium stellatum* and *Phebalium sylvaticum*. Following is a brief description of each of these plants.

Phebalium graniticola This is the Phebalium that we knew as squamulosum that grows in the Torrington area as a small tree to about three metres. It differs from the true squamulosum in that its leaf margins are irregularly dentate rather than entire; the calyx rim is in broad triangular lobes rather than truncate; the seeds are warty with a few longitudinal ridges as opposed to non warty and much longitudinal ridging; and finally its leaves lack the essential oil squamulosone.

The plant is widespread across the Northern Tablelands and, as the new name implies, tends to grow in granite. This one I have grown for several years and it is well adapted to the climate of the Northern Tablelands being both drought and frost tolerant

Phebalium graniticola - note dentate leaf margins and the broad triangular calyx lobes

Phebalium stellatum This plant grows in the vicinity of Cascade near Dorrigo. It grows to a tree to 8 metres tall. It differs from the true squamulosum in that it has stellate trichomes or hairs on its leaves and branchlets, has lanceolate leaves up to 120 mm in length, smaller flowers and seeds, the latter having fewer longitudinal ridges. It also lacks squamulosone in its leaf essential oils.

The plant is fairly restricted in where it grows and has been named stellatum because of the stellate hairs on its branches and leaves. I have grown it for two years and it tends to be slightly frost tender when young, getting slightly burnt off by minus 10 degrees Centigrade. I have not grown it in the ground, only in a pot, so its drought hardiness remains to be tested. It is a lovely plant when in flower.

Phebalium Stellatum

The flowers and lanceolate leaves

Phebalium stellatum

The adult plants in situ giving some idea of the height and prolific flowering

Photo from the Muelleria paper

Phebalium sylvaticum This plant grows in the Gibraltar Range National Park, Mount Barlow and the McPherson Range and Richmond Range areas as a tree to six metres. It differs from squamulosum in having larger narrow lanceolate leaves; the seeds tend to be warty with a few longitudinal ridges and it lacks squamulosone in its leaf essential oil. Its name reflects its growth in wet forests.

I have even less experience with this plant. It will tolerate frost to minus ten degrees Centigrade. The drought hardiness is untested and must be in doubt in view of the habitat in which it normally grows. We did see this plant flowering at Gibraltar Range two years ago when we visited as a group. Unfortunately I do not have any pictures of it.

There is some excellent work coming out of UNE Botany Department and with the current project looking at Phebaliums, I am sure we will see many more species identified. They are in the Rutaceae Family, related to the Boronias, and like the Boronias have much to recommend them for horticultural use. The ones that I have grown seem much hardier and more long lived than the boronias.

For those who wish to read the paper, use Google search for:

Muelleria_vol38_new_species_Phebalium_Telford_pp_3-16,pdf

Visit to "Heatherbrae" at Black Mountain

by John Nevin

On Saturday 21st November, our group paid a visit to the garden of Lyn Walker and Richard Bird at Black Mountain. Richard is a retired Geologist and Lyn a keen gardener who was the organiser for the Open Garden Scheme for New England for many years.

They purchased a grazing block at Black Mountain in the 1990's and it included a significant area with lots of grass trees. Our group contributed some labour and funds in helping to fence off the area for conservation and we were keen to have a look twenty five years later to see how things were going.

Grass trees with flower stems damaged by Cockatoos and drought stressed understorey

The record drought that we are experiencing had taken its toll and the grazed paddocks were very dry with sparse vegetation. The grass tree area was dry, but healthy, with considerable regrowth. The kangaroos had been taking advantage of it and grazing there. Peter Metcalf had performed a Botanical Survey several years ago and had listed 126 species, not including mosses, lichens, bryophytes or orchids.

Apart from the fenced area, Richard gave us a geology lesson on the features of the property and showed us several large Hoop Pines that had been planted prior to their purchase of the block. These were thriving, albeit not native to the area. A large eucalyptus tree that had been struck by lightning was impressive showing the effects of the large amount of energy in shattering the tree.

Geology lesson by Richard Bird and Dry grazing paddocks

The garden was feeling the effects of the dry and Lyn commented that many of their plants had perished. However, some were flourishing, such as *Grevillea arenaria*. The garden sculptures were a feature as was the dry stone wall. We thanked Lyn and Richard for their hospitality and retired for a long lunch at the Wicklow Hotel.

Art in the garden

More art in the garden – All photos by Eric Sinclair

Death of Warren Sheather

by John Nevin

Most of you will already be aware of the recent death of our long standing member Warren Sheather. Warren and Gloria had been having some health issues in recent times and had made a decision to move to the Sydney area to be closer to family. Our group had proposed Gloria and Warren for Life Membership of APS NSW because of their long standing contribution to the appreciation of the Australian Flora.

The nomination was accepted by the State Committee, and Barbara and I were very happy to be in Sydney for the official proposal and presentation of the award. Shortly after this Warren was admitted to hospital for urgent abdominal surgery. Unfortunately, this disclosed a bowel malignancy that was advanced. Warren battled post operative complications for several weeks, but the underlying malignancy then ran its course leading to his death.

We offer to Gloria and family our condolences on their loss. If there are any positives to this story, it is that Warren and Gloria were able to sell their property before the drought set in. They were then able to find a new home in the Blue Mountains and set it up for them both before Warren's demise. Gloria should be settled there with the support of family nearby.

The following is the **Life Membership proposal** that we submitted to APS for those who are not familiar with Gloria's and Warren's long contribution to the Society.

"The Armidale and District Group of the Australian Plants Society NSW wish to nominate Warren and Gloria Sheather for Life Membership of the Australian Plants Society NSW.
Gloria and Warren married 54 years ago and lived in Glenbrook in the Blue Mountains. Gloria had a lifelong interest in native plants, since primary school, and got Warren interested in native plants as well. They joined the Blue Mountains SGAP group and worked in the Glenbrook Native Plant Reserve when it was first established.
On moving to Armidale they were foundation members of the New England group of SGAP when it was formed in August 1977. Positions that Warren held in the local group include Steward (at the inaugural meeting), seedbank officer in October 1977 when free native plant seeds were offered to the public, vice president and seed bank officer 1978, president and seed bank officer 1979, contributor to our book "Australian Plants for the Northern Tablelands of NSW" 1980, vice president 1980, seed bank and propagation aids 1981, speaker and garden visit for 2002 State conference held in Armidale.
In his work, Warren was initially in the PMG and later in the Navy as a civilian working in electronics. He followed his interest in native plants to become a ranger at the Warrumbungle National Park, where they lived in the Ranger's house within the park. He was later appointed as a ranger at the New England National Park, living within the park at Banksia Point.

As their family grew older, they made a move to Armidale so as to be closer to schools for the children's education. He took up a position as Professional Officer in the Department of Botany at the University of New England. He continued his association with the National Parks, serving on the Advisory Service. He also completed an external Arts degree majoring in Botany. At the University Warren ran lunchtime teaching sessions, in a voluntary capacity, for the staff and students, on native plant propagation. He also worked with the University Administration to plant out the grounds with native plants, many of which he propagated and provided.

Warren has promoted Australian plants continually throughout his life. He has had a fortnightly column in the local newspaper, the Armidale Express, for over thirty years. He has also written articles for the Armidale Independent, Walcha News and the Inverell Times. His articles explore species suitable for local conditions and give details of their natural distribution and growing conditions.

He has been a regular contributor of articles for our Armidale & District Group of APS NSW Newsletter, for the State NSW Newsletter and for the Acacia Study Group Newsletter. For over twenty years, he has had a fortnightly half hour session on the ABC Saturday Gardening Program where he would answer questions on air and discuss the propagation and cultivation of native plants. All of this has been done in a voluntary capacity.

He has been a popular guest speaker for many groups including our APS group, The Armidale Tree Group (concerned with revegetation following the eucalypt dieback of the 1970's), U3A Armidale, New England Landcare Groups and Gardening Society Groups.

He has maintained his own website (www.yallaroo.com.au) for over twenty years, where he has over 500 items about Australian Plants, Wildlife and National Parks. He maintains an online diary about what is happening in his garden, and a photography collection of Australian plants with a commentary on how to grow each of them. From the gardening perspective, they developed a five acre hobby block to the west of Armidale, at Invergowrie, where an enormous number of species were planted. This block served as an inspiration to those seeking to learn how to revegetate after the 1970's eucalypt dieback in order to restore the devastated ecology of the Northern Tablelands.

Twenty years ago, they moved to a larger block, "Yallaroo" (Aboriginal for beautiful flowers), where they have continued to propagate and cultivate Australian plants. This garden has been visited regularly by many different groups from the community, including gardening clubs from across New England and North West, APS groups, bird watching groups, Naturalist groups and was visited as part of the 2007 New England tour as part of the biennial conference of ANPSA held in Newcastle. Warren and Gloria also received the Golden Spade award from the ABC "Gardening Australia" show by Peter Cundall. It has served as a practical demonstration of what can be achieved with our local flora.

Throughout all this activity with Australian plants, Warren and Gloria have worked as a team, with Warren regularly referring to Gloria on his radio program, as his "principal research officer". After this lifetime of promoting and growing Australian plants, they are now planning on a return to the Blue Mountains to be closer to family.

It is our belief that they both fulfil the criteria for Life Membership. They have been most generous in sharing their knowledge and plants with other APS members and with the population in general.

They have been "Australian Plants" for Northern NSW for forty years, increasing the awareness and knowledge of Australian plants, fostering the growing of Australian plants, protecting and conserving Australian plants, and this has been at a Local, Regional, State and National level."

FOR YOUR DIARY

Saturday 16th November 2 pm **Annual General Meeting**

Several members will narrate how they became interested in Australian Plants.

Most key position will be vacant. Please consider going onto the committee and assisting with the activites of the group.

Saturday 7th December 12 md **Christmas Luncheon at Armidale Bowling Club**

Notify Carol Fullalove by Tuesday 3rd December to confirm if you are coming.

Email Carole.fullalove94@live.com.au

Friday 13th December 2 pm **New Committee Planning Meeting for 2020**

At Armidale Tree Group.

If you would like certain activities next year, then let your committee members know. Alternatively, **you are most welcome to attend the committee meeting** to make your suggestions.