



Australian Plants Society Armidale & District Group

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Crocea exalata ssp magnifolia
image by Maria Hitchcock

Summer Edition 2021 - 1



Blandfordia grandiflora – Christmas Bells

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From the Editor: John Nevin

Welcome to a new year – 2021. Let us all hope it is an improvement on the last two years. What began with one of the worst droughts in our history, moved into massive bushfires, widely recognised as an environmental catastrophe, and culminating in the first pandemic in a century, COVID-19. It has been a difficult period.

From the COVID point of view, Australia has been fortunate to have an able public health capacity whose advice has been listened to by our politicians. As a result, apart from a couple of bungles, the disease has been limited in its impact and we have been spared the heart rending scenes of so many countries where the health service has been overrun, health advice ignored by governments, and large sections of the population have sought to thwart public health advice.

There have been significant costs to the measures required to keep everyone safe. Many activities have ceased or have had to be greatly modified. The Fred Rogers Seminar in Victoria had to go virtual and the biennial conference to be organised by NSW has had to be deferred until 2022. Locally, we have ceased our indoor meetings and have concentrated on outdoor activities, such as working bees for the Arboretum and field trips such as a visit to the Gooniwigall Reserve.

The changes to socialisation will likely be with us for some time to come. A vaccination program should provide protection against the more lethal effects of COVID, but this will take the better part of the year to do the whole Australian population. Emerging mutations in the virus raise the likelihood of regular immunisation updates to protect us from these mutants, somewhat like the regular Influenza shots that we get.

We found the lockdown challenging, but thank God for a large rural block and a garden. The time has been put to good use working at repairing the extensive damage caused by the drought. We lost many plants – I have listed our experience with native plants in earlier editions of the newsletter. We also lost many mature well established exotic plants. The task of removing these and replacing them has been a huge task. We hope to modify our plantings so that they are more likely to survive in a changing hotter and drier climate.

The garden work has been a bit more difficult than it should have been, as I became rather despondent during the drought and let things drift in the garden. Coupled with a wet 2020, the weed growth has been explosive, necessitating a lot of time spent weeding and mulching.

Let us hope that our politicians have learnt from their COVID experience, that listening to well informed advice, achieves world class outcomes for our communities. Hopefully, there will be better informed policies on global warming to head off further deterioration of our climate and in decades to come, some reversion to what we have regarded as normal, that our children may enjoy.

Christmas Bells at Christmas by Eric & Penelope Sinclair

Through December there had been talk among APS members of checking out the flowering of the Christmas Bells in the Gibraltar Range National Park following the fires in late 2019. After reading Pat Laher's message following his visit, Eric and I took advantage of a fine Christmas Eve to drive up to the area. It was well worth the effort.

Prof. Bruhl from the Botany Department UNE had taken a group of his students to the area in early December and found the Christmas Bells were quite spectacular in the swamps on the north side of the Highway a couple of kilometres east of Gibraltar House. We explored these areas first. In the more swampy sections the yellow of the flowering *Xyris* "lilies" was striking and highlighted the red and gold of the Christmas Bells, *Blandfordia grandiflora*. Closer examination of the Bells confirmed that many were past their best and frequently showed signs of insect damage where holes had been cut into the bell to reach the nectar at the base. Some were developing long seed pods.



The scrubby areas bordering the swamps were interesting with flowering *Baeckea omissa* (Heath Myrtle), *Notalaea linearis* (Small-leaved Mock Olive) in fruit and the delightful blue sprawling *Dampiera purpurea* (Furry Dampiera). The insects were making good use of the plants and added to our enjoyment. Below on *Xyris* are a Buprestid beetle and a Lepidoptera larva and a Lacewing adult on the *Baeckea*.

We then explored along Mulligan's Drive where there are quite extensive swamp areas bordering the track – the most colourful was just beyond the start of the track to Anvil Rock. Here the Christmas Bell flowering was not so advanced with both the Bells and the *Xyris* creating a mosaic of colour amongst sedges also in flower. The blackened tree trunks around the edges emphasized the time difference in regeneration of different plant species.

Additional smaller plants noticed included *Drosera binata* (Forked Sundew), the blue *Lobelia gibbosa*, and on the drier edges *Platysace eridoides* was common.



Blandfordia grandiflora



Xyris operculata with a Buprestid beetle and Lepidoptera larva



Dampiera purpurea – Furry Dampiera



Lacewing adult on *Baeckea omissa*



Baeckea omissa – Heath Myrtle





Drosera binata – Forked Sundew



Lobelia gibbosa



Platysace ericoides

Christmas bells - *Blandfordia* is the sole genus in the family Blandfordiaceae. There are 4 species, all endemic to eastern Australia; one is restricted to Tasmania, three are found in NSW with *B. grandiflora* extending north from the Hawkesbury area to Fraser Island in Queensland.

In the wild, flowering is always best after fire. This is thought to be due to the poor nutrient soils in which the Christmas Bells grow where they are poor competitors. The main effect of fire may be to reduce competition and recycle nutrients.

B. grandiflora grows in damp sandy and/or peaty soils in coastal and tableland areas. It prefers areas with a high water table, moist but also well drained. Flowering can occur between November and February with peak flowering around Christmas. The number of flowers per stem varies from 2-25. The commonest colour form is red with a yellow edge but may vary from dark red with edging, to all yellow. Some have been described as striped.

The bells are visited by nectar feeding birds, especially the small honeyeaters. Long narrow seed capsules develop and contain brown velvety seeds when mature. Plants are perennial and have fibrous roots and develop a slow growing corm which has led to estimates of plant ages up to 100 years or more; from seed to first flowering takes about 3 years. After flowering the plant dies back and regrows from the corm.

Due to their popularity as cut flowers, *Blandfordia* have been wild picked in the past for the domestic and overseas florist trade. It is now being grown commercially, though there have been many problems obtaining uniform size, colour and reliable flowering.

Information above was obtained via the web from Agnote DPI-148, from a newsletter article of the Far North Coast APS Society, NSW, by Florence Treverrow and from PlantNet. Our member, Maria Hitchcock, has a section in "Top Tips" on her web site about growing Christmas Bells in pots.



Upright seed pod of *Blandfordia grandiflora*

Some interesting observations of your visit to Gibraltar Range. We tend to do field trips during mild weather conditions, such as in Spring and Autumn. By restricting ourselves to these times, we miss seeing some interesting native plant species that flower during the hotter or colder months, such as you have shown here.

Editor

A Winter Visit to Aberaldie Nature Reserve

by Eric & Penelope Sinclair

This winter we visited the Aberaldie Nature Reserve approximately 19 km SW of Walcha. There are a number of Nature Reserves around Armidale but unfortunately many are unavailable to the general public as the only access is via private property.

This 284 hectare Reserve was set up in 2003 and is interesting as an area of relatively undisturbed open forest within widespread cleared grazing land.

The web provided some basic information and notes on vegetation. It is an area of tall



trees dominated by New England Blackbutt (*Eucalyptus campanulata*), Mountain Gum (*Euc. dalrympleana*) and Youmans Stringybark (*Euc. youmanii*). Other regionally rare trees present include the Bendemeer White Gum (*Euc. elliptica*), Apple Box (*Euc. malacoxylon*) and the Narrow-leaved Peppermint (*Euc. nicholli*).

We visited on a cold day (4 degrees as we passed through Walcha at 10.00am), and there was little in flower but obvious in the shrub layer was Daisy Bush (*Olearia viscidula*) and some heath plants (*Leucopogon* spp.). There were a few valiant flowering herbs among the grasses including the daisies (*Brachyscome* spp. and a *Coronidium*), the Native Violet (*Viola betonicifolia*), Ladies Slipper (*Hybanthus monopetalus*), the Urn Heath (*Melichrus urceolatus*) and Buttercups (*Ranunculus lappaceus*). There were also lots of fungi on rotting logs and along the path. The birds were in good voice and it was great to be out in the bush.





We travelled to Walcha via Uralla and then drove along the Aberaldie Road, into Niangala Road and so to Kilburnie Road, which takes you through the reserve. Youman's Trail provides one of the walking tracks into the forest.

We left the Reserve by continuing on Kilburnie Road, then took a right

turn into Campfire Road which one can follow to Woolbrook. This part of the trip is very picturesque as the road is along a high ridge (part of the Moonbi Range) with great views on each side. Thence back to Armidale via Wollun and Kentucky.

New Study Group

A new Study Group has been formed to study plants with pea flowers and has been approved by ANPSA and has been named **The Australian Pea Flower Study Group**. In the past, a study group for this purpose has operated under the name Fabaceae Study Group, as pea flowers were previously recognised as a separate family.

If you are interested in the identification, classification, cultivation, propagation or conservation of Australia's pea flowers, consider joining the **Australian Pea Flower Study Group**.

The study group webpage can be found here: <http://anpsa.org.au/pea-flowerSG/index.html>. If you would like to join the group, there is a section on the webpage that can be completed and submitted on-line. Membership for emailed newsletters is free. Shirley McLaran is the new Study Group leader.

Study Groups are a great way to learn more about plants in which you may have an interest. No particular expertise is required – just an interest in that particular plant group and a desire to learn more about them. It is also a way to gain access to unusual plants that are not available in the conventional nursery trade.

Arboretum Working Bees November 2020

We ran two very successful working bees in November. With the forecast of good rains this summer, I was keen to get plants in the ground and growing.

Nine members planted a total of 48 shrubs on the 5th and 20th. with the first lot an assorted mixture of species mainly from Western Australia, and the second were all *Prostanthera* from UNE Botany.

There were multiples of most of the species of *Prostanthera* with 5 species either new species or with a question mark against their ID. All the *Prostanthera* were planted in the middle concrete edged bed and we are looking forward to their flowering next year.

If there isn't good follow up rain this month then we will need to do a watering early in December. Thanks to the following members for their planting assistance :

Lee Horsley, John Nevin, Deirdre Waters, Eric & Penelope Sinclair, Phil Rose, Peter Shephard, Patrick Laher and special thanks again to Colin Wilson for bringing water.

Patrick Laher – Arboretum Coordinator

Summer Flowering Plants

by Patrick Laher

On the 1st of January, I went for a stroll around my garden to see which plants were in flower, and not surprisingly, it was the open forest and grassland species that made up the bulk of approximately 41 flowering species. There are multiples of most of the small growing species, for example, I have about twelve *Boronia crenulata* 'Pink Passion', and I have never lost a plant of this wonderful species.

The five tall plants flowering are all worthy of a place in Tableland gardens. *Acacia penninervis*, the Christmas or Summer Wattle, is especially magnificent this year, due no doubt to the rain. It is difficult to see the foliage amongst the cream scented flowers. I collected the seed at Torrington when I accompanied John Nevin on a trip to collate a species list of Tablelands Wattles.

A wonderful insect attracting plant is *Leptospermum brachyandrum*, a local species with beautiful multi-trunks. This plant joins *Sannantha angusta* (*Baeckea* 'Clarence River') as a fabulous insect attractor. *Callistemon* 'Watermelon' has flowers in the colour as the name implies, and is a Mole Station selection. Besides the unusual flower colour, it is a late flowerer and may grow to four metres. Needing protection from severe frost is *Eucalyptus albopurpurea* 'Purple Patch', a showy South Australian flowering small tree which is very attractive to honeyeater birds and the large yellow and black coloured wasp.

Grevillea 'Lady O' is a medium growing plant and is a fairly recent addition to my garden. This *Grevillea* has very beautiful red flowers and soft foliage. *Lomatia fraseri* and *Lomatia silaifolia* are still hanging on with cream flowers, while *Correa glabra* will soon be a mass of yellowish bell flowers. The glabra forms of *Correa* are a very hardy group and will grow in full sun or shade and self seed in a garden.

Boronia crenulata (below), *Lomatia fraseri* (R)



Small growing plants need to be planted in the front of garden beds and borders in multiples to make an impact, and ideally placed away from large shrubs. If there is a damp spot in your garden or close to a watered lawn, then the following would be most suitable: *Grevillea* 'New Blood', a non-prickly, spreading ground cover to 3 m with striking red flowers; *Lythrum salicaria* has pink flower sprays; *Thelionema caespitosa* with white or blue flowers; *Bulbine bulbosa* is yellow and *Epacris microphylla* has white flowers.



Lythrum salicaria (L)

Murdannia graminea (R)



Murdannia gramminea, is a plant that has three petalled purple flowers, and *Caesia parvifolia* has sprays of blue flowers. These latter two plants have tubers and the easiest way to increase plant numbers is to divide the tubers. *Murdannia* grows naturally on the site of the Uralla BMX track and is now flowering prolifically. This plant and the *Lythrum* both die down in Winter, but come back bigger and stronger the following season. These last six plants are local Tablelands plants.



Isotoma anethifolia growing
at Torrington SCA



Chrysocephalum apiculatum
(local form)

Some other beautiful small plants in flower are the *Brachyscomes* in various colours. *Westringia* sp. Wollomombi and Dangars Falls, *Calotis lappulacea* (yellow), *Pelargonium rodneyanum* (pink), *Scaevola aemula* in various colours, *Isotoma anethifolia* and *axillaris*, *Chrysocephala apiculata* and *semipapposum*.

Many of the plants are available from time to time from Mole Station and local nurseries. Maria Hitchcock and Rob from the Armidale Tree Group are always worth a call.



Some thoughts on lockdown and home schooling

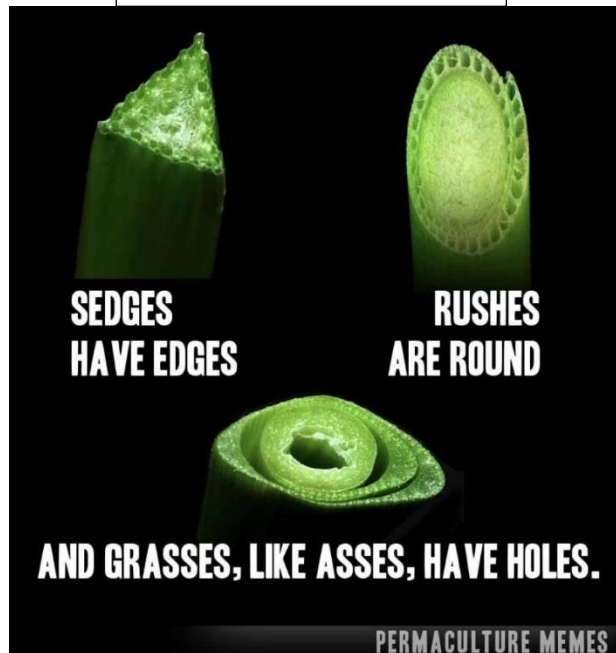
When parents start to crack during lockdown



Every Magpie is different but they all have a Seagull on their beak....



If you have trouble with sedges, rushes and grasses



What is the difference between a butterfly and a moth?

Butterflies vs Moths



The image shows two insects side-by-side. On the left is a butterfly with vibrant orange, black, and blue wings. On the right is a moth with muted brown and green wings and a thick, fuzzy body.

- Usually colorful
- Hard chrysalis
- Thin body
- Day active
- Long straight or clubbed antennae
- Wings rest upright
- Wings rest closed
- No wing hinges

- Usually dull
- Silky pupa
- Thick body
- Night active
- Short feathery antennae
- Wings rest along body
- Wings rest open
- Upper and lower wings attached

Some observations on a walk at Wollomombi Falls by John Nevin

Over the Christmas/New Year period we went walking at Wollomombi Falls at the Oxley Wild Rivers National Park. The visiting family had not seen the new viewing platform that had recently been constructed, so we were keen to show them. The first impression was amazement at the number of people visiting the area. It was hard to find a park as large numbers of families were out walking and picnicking there. I suspect the lockdowns have led to a greater appreciation of the great outdoors. Long may it persist!

While doing the walk to the Chandler Falls Lookout, I came across some caterpillars that I photographed and posted onto a Facebook site for Lepidoptera. Some of the knowledgeable members of the site managed to identify the caterpillars and in one case the plant on which it was feeding. It is interesting to see the intertwining of botany with insect life.



The caterpillar of *Theretra oldenlandiae* feeding on twining vine at the Wollomombi River crossing. The vine was also identified by a Hawk Moth expert as *Cayratia clematidea* (Native Grape).

This plant is a member of the Vitaceae and is widespread over eastern NSW and is a favoured food source for this particular species of moth caterpillar. I have not recognised this plant before.



This is a photo of the moth that develops from the above particular caterpillar, a Hawk Moth, *Theretra oldenlandiae*.

The other caterpillar was a rather small, dark one that was feeding on the young plants of *Acacia diphylla* along the track. There were a lot of small ants around the caterpillars, and I wondered if they were under attack by the ants. It turned out that the caterpillars were of the Imperial Hairstreak butterfly. These caterpillars like *Acacias* as a food source. They have an interesting symbiotic relationship with ants of the Dolichoderinae family and these ants defend the caterpillars from attack by predators.

An investigator at Harvard University has found that the caterpillars and their pupae make chirping noises to communicate with each other and their attendant ants. The adult butterfly is quite attractive. Although I found these at Wollomombi Falls, I have not seen the butterflies in my garden at nearby Armidale, even though I am growing many species of local wattles.



This is a photo of the caterpillar of *Jalmenus evagoras*, the Imperial Hairstreak, feeding on *Acacia diphylla* and attended by small ants.



This is the butterfly that develops from the caterpillar, *Jalmenus evagoras*, the Imperial Hairstreak.

The result of the trip was a pleasant walk shared with many other travellers that were also afflicted by 'Cabin Fever'. I hope this revised interest in our Park system persists as they are an invaluable community resource that have been undervalued due to other distractions in our life.

And thank God for the internet as a way to pursue interests while locked away during COVID-19. I have certainly resurrected many old hobbies using the internet during the past twelve months.

For those interested, the Facebook site is 'Australian Butterflies and Moths', and currently the site has 5,200 members across Australia. Members post photos of specimens that they see to share with others and to receive assistance with their identification.

Revision of *Olearia elliptica*

by John Nevin

Recently the taxonomy of several plants in our area has been reviewed and we now have some new species. One of these is *Olearia elliptica* which is a common daisy in our area. It has long been recognised that two distinct forms of *Olearia elliptica* occur on the mainland. These can be readily separated in the herbarium based on leaf size and shape as well as glossiness and petiole length.

The two forms occupy different habitats eg *O. elliptica* sens. str. Grows in more easterly areas with high rainfall. The second form grows in more westerly localities that have a lower rainfall. The westerly one is sufficiently different to be a distinct species and is now called *Olearia fulgens* A.R. Bean sp nov.

Olearia fulgens grows from Tambo and Springsure in Queensland to Stuart Town and Capertee Valley in NSW. Compared to *O. elliptica* the leaves are narrowly elliptic to lanceolate. The name **fulgens** is derived from Latin and means gleaming or shining, a reference to the very shiny leaves of this species.

<i>Olearia fulgens</i>	<i>Olearia elliptica</i>
Leaves narrow elliptic to lanceolate	Leaves elliptic to ovate
Length/breadth ratio 3.5-5.5	Length/breadth ratio 2.5-3.5
Lateral leaf veins not raised and indistinct on leaf under surface.	Lateral veins raised and prominent on leaf under surface.
Petiole 5-10 mm	Petiole 10-17 mm
Involucral bracts glabrous	Involucral bracts sparsely hairy
Summer and Autumn flowering	Spring flowering

To read more, see: **Austrobaileya 10(4) 656-662 (2020)**

A taxonomic revision of *Olearia elliptica* D.C. (Asteraceae: Astereae) with the description of two new species *O. fulgens* A.R. Bean and *O. praetermissa* (P.S. Green) A.R. Bean.



An example of *Olearia elliptica* sourced from the Laminton National Park and kept in the N.C. Beadle Herbarium.



An example of *Olearia fulgens* sourced from the Guyra/Tingha Road and kept in the N.C. Beadle Herbarium.

Trip to Barrington Tops

by John Nevin

We have a weekend trip to the Barrington Tops scheduled for 19-21 March. I am still in the process of organising a precise schedule for this trip. A general outline is to travel to Gloucester on the afternoon of Friday 19th March. We will stay two nights in Gloucester (Friday and Saturday nights) and use that as a base from which to explore.

There are several good motels in Gloucester, including The Gloucester Country Lodge, Bucketts Way Motel and the Roundabout Inn. The latter two have restaurants. I would propose we have a meal together on the Friday night and I will get people to make their own motel bookings.

If you would like to go, please let me (John Nevin) know – Phone 0267752128 and I will keep you in the information loop about the trip. You can probably hold off making bookings until the end of February, by which time I shall be in touch with those interested in going.

Program of events for 2021

Friday February 26th	9am Arboretum working bee
March 19-21 (Friday, Saturday, Sunday)	Trip to Barrington Tops
Friday March 26th	9am Arboretum working bee
Saturday April 17th	Uralla garden visits – Col Wilsons at 1 pm at 93 Hawthorne Drive; then onto the Gardener's.
Friday 30th April	9 am Arboretum working Bee
Friday 28th May	9 am Arboretum working bee
Saturday 19 th June	Solstice Luncheon at Top Pub Uralla at 12.30 pm after visit to garden of Pat Laher at 10.30 am.
Friday 25th June	9 am Arboretum working bee
Friday July 30th	9 am Arboretum working bee

As you will have noticed, we have put off indoor meetings until COVID-19 is resolved and plant sales at the Markets in the Mall deferred until water restrictions are over.
