

AUSTRALIAN NATIVE PLANTS SOCIETY

CANBERRA REGION (INC)



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Cover: *Clematis leptophylla*, Sutton, NSW; Photo: Gail Ritchie Knight

Journal articles

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

All contributions, however short, are welcome and may be accompanied by photographs or drawings. The editor reserves the right without exception to edit all articles and include or omit images as appropriate.

Submit photographs as either electronic files, such as JPEGs, or prints. Set your digital camera to take high resolution photos. Please send JPEGs separately and not embedded in a document. If photos are too large to email, copy onto a CD or USB drive and send it by post. Please enclose a stamped, self-addressed envelope if you would like your prints returned. If you have any queries please contact the editor.

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President's Report

By BenWalcott

Welcome to 2019. I would like to thank you all for your patience as we get used to our new membership system. There have been numerous challenges to get it to fit our needs but generally it is working well.

The previous system was a manual one that took constant attention by the membership secretary and involved many steps to maintain. The new system is much more automated and will require much less effort to maintain.

The new website is still a work in progress. We decided that the membership system had priority and now we can add the other essential material.

We are planning a whole section of the site for Plants, (we are still looking for an appropriate name), which will have information on specific plants that do well in our region and how to plant, prune, propagate, purchase and generally look after plants.

There will be a section on plants in bloom this month, as well as people's favourite plants.

All the Wednesday Walks reports have been uploaded onto the new website and are now in the process of being organised.

There will be a place for Field Trips reports as well as other items members may request. It is going to take some months, perhaps several years, to get the website fully populated with what we want.

It is important to remember that the website isn't just for us, it is our face to the public. We want it to be useful to them and encourage the use of native plants in gardens.

I would remind members that 16 March is our autumn plant sale and we will need lots of help setting up on the Friday before and then on the day.

These sales are important because they get lots of native plants into gardens and provide significant interaction between the public and members of our Society. Please help out.

President's Report 2017-2018



By Lucinda Royston, President, ANPS Canberra Region 2017–18

This is a joint Presidents' report as Ben Walcott and I shared the role of President while I was away for the second half of 2018, travelling to and in Western Australia. As the position of Vice-President was vacant, Ben as Treasurer took on the President's role.

Once again, our memberships have remained at about 300 members with individual and family memberships. Our membership fees have remained the same too.

In April, Council was very pleased to have Garth Chamberlain volunteer to be Secretary, after more than a year of this position being vacant. No Council meeting was held in June as a number of council members were away or unavailable.

In August, Council decided that there would be a benefit to having the Journal Editor and Bulletin Editor on Council and both accepted Council's invitation and joined Council.

Council is developing a Conflict of Interest policy for the Society and it is currently out with our sub-groups for them to consider and comment on.

At the November AGM, Life Membership was awarded to Lyndal Thorburn and Tom Jordan thus acknowledging their long-term and broad-range contribution to ANPS and to its aims and values.

A question was raised this year on whether the current 'member grower' system may be in conflict with our Constitution, specifically that no member shall receive or acquire any financial advantage as a consequence of their membership.

Accordingly, Council sought professional legal advice that confirmed we were not in breach of the *Associations Incorporation Act 1991* though recommended we make a change to our Constitution to make it consistent with the Act. This was done with a unanimous vote at the Special Meeting held with the September members' meeting.

This year, Council decided to donate \$10,000 to the Canberra Nature Map Project to support the developing and implementing of a Weed Location App, as a component of the Project.

We have a partnership with the Capital Region Landkeepers Trust that

provides jointly funded scholarships and fellowships under which we have donated an initial payment of \$10,000.

This year we have agreed to support two projects:

- Michael Cleland via Charles Sturt University to investigate biodiversity benefits from re-instating fire into long unburnt temperate grassy ecosystems; and
- Dr Ken Hodgkinson to research the roles of soil properties in the survival of planted native forbs, germination/ establishment of native species and competition between forbs and grasses of exotic native species.

The Capital Region Landkeepers Trust aims to contribute to the management of this region's landscape by investing in people and projects.

Under advocacy, Council put in submissions to:

- the ACT Government on the Molonglo River Reserve Draft Management Plan; and
- the NSW Minister for Environment expressing our dismay that feral horses are being protected with disregard for fragile alpine ecosystems.

We also provided comments to the ACT Parks and Conservation Service on a possible PlantSure program aimed at reducing invasive species sold in nurseries.

In January this year the ANPSA Biennial Conference was held in Hobart. Ben Walcott, as ANPSA Vice-President, and two other ANPS members represented us as Delegates at the business meeting.

The next Biennial Conference is in Albany, WA in November 2019.

In September, with the stock of our book *Australian Plants for Canberra region gardens and other cool climate areas* down to 300+ we have reprinted another 1000 copies. We printed 2000 copies in 2015 and again in 2016.

We ran two plant sales again this year. At the March Autumn Plant sale we had nearly 15,000 plants and sold 11,000; at the October Spring Plant sale we had xxx plants, and again sold 11,000. Feedback from customers says that most get information about our sales from Facebook and electronic means and from our roadside signs.

We have expanded the membership of the Plant Label Database Team from three to 11 members following the review of the Plant Label Database and Standards Committee in 2107.

Unfortunately, there was no Autumn Weed Swap event this year as funding from the ACT Government (with money needed for plants) was in doubt/not confirmed until it was too late to hold the event as planned. Council had decided not to provide the funding instead. Fortunately, the ACT government did later commit to funding and Weed Swap was held in November.

This year, Council has focussed on having a website that meets our needs and is more usable and appealing, particularly to those outside the Society. After approaching five professional web design and brand management companies about redeveloping our website, we selected Giraffe based on their quote and our discussions with them.

In April, Giraffe created a lite version of our website for us to trial and comment on as they continue to develop our final website. There is a redirect from the old website to the new website (<https://nativeplantscbr.com.au>).

The new website is intended to contain all ANPS databases that are essential for the Society — membership, plant labels etc as well as information.

We subsequently asked Giraffe to look at redesigning a new logo as well. Giraffe have developed a logo, pitching the design to a younger demographic, of stylised *Eucalyptus polyanthemos* leaves and with the words 'native plants society' prominent. We have asked members to provide us with their comments.

We have had another busy year of:

- regular members' activities — monthly members' meetings, field trips, Wednesday walks, propagation,

monthly Daytime Activities, biannual plant sales and Weed Swap.

- activities that keep the society running — monthly Council meetings, the plant label database, our website and our IT facilities, the monthly meeting book sales, membership database, quarterly Journal and monthly Bulletin.

All these activities and events are organised and maintained by members volunteering. Every bit of assistance a member can contribute is appreciated/worthwhile.

Our thanks and appreciation go to all the coordinators and team members and to those who volunteer, participate and support the Society by being members. It has been another successful year.

13 December 2018

ANPSA News



By Riitta Boevink,
President, ANPSA

On the 27th of November the second Australian Native Plants Society Australia (ANPSA)

meeting was held as a teleconference preceded by the Annual General Meeting (AGM). Except for the Annual meetings, when there are

two delegates, each member society is represented by one delegate. The Top End Native Plant Society from the Northern Territory was an apology, but all other member societies were represented by their delegate.

If you have any questions or concerns about conservation issues that you think would be of interest at the national level, contact your delegate.

With all the elected officers the teleconference included 17 participants. Time differences ranged from 5pm in WA to 8pm in the eastern states with daylight saving time. It brings home what a big country Australia is!

At the AGM, the previously discussed changes to Rules and Bylaws were ratified. The main alteration was to simplify the appointment of officers such as Newsletter Editor by not specifying their titles. This eliminates the need to formally change the Bylaws every time it is found expedient to change or discontinue a role.

One of the motions adopted at the Biennial meeting was the publication of the Rules and Bylaws on the ANPSA website.

What is this national body with the cumbersome acronym ANPSA? It is not a peak body in the usual sense: it does not dictate policies to the member societies in each state and territory, which are independent.

It creates an opportunity to present a united front of many members across Australia to promote our aims. Matters can be brought to the attention of politicians at the federal level.

The four objects (should perhaps be objectives?) specific to ANPSA as stated in the Bylaws are:

- To further collaborate between autonomous member societies
- To promote all aspects of the horticulture of Australian plants
- To promote the conservation of Australian plants and their habitats
- To speak with one voice for member societies at a national level.

Conservation

Eddy Wajon, as the ANPSA conservation officer, has led action on three major conservation issues in the past year:

- the threat to the bushland reserve surrounding the Jandakot airport in Western Australia
- the continuing damage caused by brumbies in the Kosciusko National Park
- and the ever-increasing threat to Australian plants by the spread of myrtle rust.

A delegation from WA and ACT took the Jandakot airport issue to various federal government representatives in Canberra. They were received favourably but final decisions will take up to 18 months. Alternative solutions continue to be proposed at the local level.

Correction

On Page 15 of the December 2018 issue of the Journal (Vol 19 No 8) the caption of the top right photo was incorrect. It should read: 'Jean at Mt Franklin in the Brindabellas, 1965'.

And on page 21 of the same issue, the caption of the photo was also incorrect. It should read: '*Wahlenbergia gloriosa*'.

Loss of Mature Native Trees Declared a Threatening Process ACT Finally Acts!

By Geoff Butler and Sarah Sharp

Prior to the European invasion of what was to become Australia, the first peoples had quite extensively modified various Australian landscapes (primarily by the use of fire) over some 60,000 years to enable their successful habitation of the continent.

Australian landscapes as they existed at the time of the invasion were well described by early European observations and good examples of these were published in Bill Gammage's tome *The Biggest Estate on Earth — how Aborigines made Australia* (Allen & Unwin 2011).

However, with the European invasion, far greater and devastating impacts were to be wrought on the ecosystems of Australia. Indeed, wholesale clearing of native vegetation started on day one of European settlement as clearing was undertaken in Sydney Cove (Semi-Circular Quay/Cove as it was then) around the Tank Stream where the settlement was to be established.

Since that day, wholesale clearing has never really faltered, and has had unremitting consequences for our ecosystems and their inhabitants.

Obviously, vegetation clearance was required as Europeans established their production needs from the country. The 'bush' must have seemed endless at that time.

But one often wonders, if the first settlers and planners had access to the knowledge we have today, would the clearing have been done somewhat differently, ensuring corridors, retention of mature trees (especially those with hollows) and appropriate representative samples of all ecosystems were conserved as development proceeded?

Current generations are not the first to question clearing regimes in this country. As far back as the 1860s, some people were aware of the amount of clearing.

Louisa Atkinson (1834–1872) was aware of the impact of European agricultural practices on native flora and fauna. On numerous occasions, she commented on the impacts of clearing eg '*It needs no fertile imagination to foresee that in, say, half-a-century's time, tracts of hundreds of miles will be treeless*' (Biography of Louisa Atkinson, Wikipedia 2018).

We now have extensive areas of highly modified woodland/grassland



Photo: Sarah Sharp

ecosystems, some where the only real remnants are the ancient scattered mature trees, many with hollows and many over 300 years old. As these trees senesce and die, there is little probably of any recruitment to take their place. They are still subject to removal for intensive agriculture, development projects, firewood and 'cleaning up', and removals still occur in the ACT.

Despite legislation designed to protect mature trees in the urban landscape, in recent years there have been substantial removals of these woodland sentinels in the ACT. Some examples are:

- Antill St, Watson — removal of 42 trees, 25 with hollows;

- Throsby — removal of 46 mature trees in known breeding area for Superb Parrot;
- Williamsdale Solar Farm — removal of 156 mature trees, a high percentage with hollows. Ministerial call-in powers were used to enable removal of these trees.
- Crace — 80 to 100 mature trees desirable for retention removed at request of ACT Planning Authority for solar access.

These recent large-scale ACT removals were the 'straws that broke the camel's back', and stimulated the Biodiversity Working Group (BWG) of the Conservation Council ACT Region into action. Other State jurisdictions

had previously addressed removal of hollow-bearing trees as a Threatening Process (eg NSW Office of Environment & Heritage 2011 and Department of Sustainability and Environment, Victoria, 2003).

The Friends of Grasslands and Australian Native Plant Society Canberra Region representatives on the BWG prepared a draft nomination for hollow-bearing trees which was discussed and refined by members of the BWG.

The Canberra Ornithologists Group representative provided extra information on two threatened bird species used as examples of threatened fauna when requested by the ACT Scientific Committee (ACTSC) who were assessing the nomination.

The BWG was pleased that the ACTSC came back at an early stage of assessment advising they were examining the nomination to also cover mature trees and recruitment to the nomination, which we were obviously happy to support.

The revised nomination, submitted in April 2017 under the Conservation Council – ACT Region, Australian Native Plants Society Canberra Region, Friends of Grasslands, Canberra Ornithologists Group and Field Naturalists Association of Canberra, can be found at <https://www.legislation.act.gov.au/View/ni/2017-198/20170428-65895/PDF/2017-198.PDF>

On the 20 September 2018 the ACT Minister for the Environment and Heritage, Mick Gentleman MLA, signed off on Notifiable Instrument NI2018–536 *Loss of Mature Native Trees (including*

hollow-bearing trees) and a lack of recruitment as a Threatening Process under the Nature Conservation Act 2014 section 90C (Conservation Advice).

The notifiable instrument can be located at: <https://www.legislation.act.gov.au/ni/2018-536>. The authors recommend examination of this document. The conservation advice is a good summary of the nomination and the required actions are clear.

We are disappointed, however, that the protection actions remain weak (page 16 of the notifiable instrument under Protection Actions); actions to mitigate against the loss of mature native trees include:

- Restrict, **as far as possible** (our emphasis), clearing of:
 - Mature eucalypts over 50cm diameter at breast height
 - Mature native trees that contain nest hollows
 - Native trees (other than eucalypts) that have reached approximately 67% of their maximum diameter.
- **Promote** (our emphasis) retention of standing dead trees wherever possible.
- **Encourage** (our emphasis) retention of non-mature native trees across urban and rural landscapes to ensure a future supply of mature trees and avoid lag times.

It is acknowledged that there will always be times when mature trees may be removed, and wording around support for retention of mature trees is always difficult.

The proof will be in the pudding — though we believe that the notifiable instrument is a step in the right direction.

The only additional item we would like to have considered is that when a mature tree (especially one with hollows) has to be removed, that it is relocated to an area where it may remain as functional habitat in other nature reserve areas, rather than be cut up or mulched!

Placement of such trees within Molonglo offset areas have proved that this is a very successful way of providing habitat at a range of fauna (le Roux 2018).

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October 2018



Bursaria spinosa, Sutton, NSW; Photo: Gail Ritchie Knight



Large Mountain Greenhood (*Pterostylis monticola*)

Text and photos: Roger Farrow

In early January, Christine and I joined three members of the orchid group, namely Jean and Bill Egan and Eyal Lebedinsky, to check on the status of the orchids known from Smokers Flat, Corin. The weather was cool and overcast, quite a relief from the preceding hot weather.

Before we arrived at the Flats, we checked out the Hyacinth orchids on a granite-based woodland slope near Birrigai. Jean knew the exact spot for the Inland Yellow Hyacinth Orchid, *Dipodium interaneum*, its only known location in the ACT. Most readers will know this orchid as *D. hamiltonianum*. But in January 2019

David Jones published the description of a new species, *D. interaneum*, for the inland populations, while retaining *D. hamiltonianum* for the coastal populations.

The main difference is its smaller purple markings on the petals compared with the large blotches in *D. hamiltonianum*. After a steep climb, we found the spot but no orchids, however, we were rewarded with several *D. punctatum* on our return. Both species are saprophytic and are usually found near the base of eucalypts.

I have been to Smokers Flat with the Wednesday Walkers several times in past years. We used to undertake the Smokers Flat Loop and the walk to



Inland Yellow Hyacinth Orchid (*Dipodium interaneum*) [left] and Hyacinth orchid (*Dipodium punctatum*)

Square Rock. But the orchid people circumnavigate the swampy flats to the north of the road where the orchid locations are well known.

The first Flat we entered is close to the road. Unfortunately, it is heavily impacted by feral pig diggings, some as recently as the night before our visit, after the rain. However, there was a spectacular display of Vanilla Lily,



Arthropodium milleflorum, away from the pigs, but no orchids were seen.

We then entered a strip of woodland and a creek towards the second flat where we found several patches of our first greenhood, *Pterostylis monticola*, with its black labellum. Needless to say, we received several warnings about not tripping the labellum from our orchid friends.



Pig damage



Vanilla Lily (*Arthropodium milleflorum*)



Large Mountain Greenhood (*Pterostylis monticola*)



Large Mountain Greenhood (*Pterostylis monticola*)



Red-stem Cranesbill (*Geranium neglectum*)

Also seen nearby was a large potato orchid, *Gastrodia sesamoides*, in seed. There was a fine display of fringe lily, *Thysanotus tuberosus*, in this woodland while the white flowers of red-stem Cranesbill, *Geranium neglectum*, stood out in the swamps.



Fringe Lily (*Thysanotus tuberosus*)



Channelled Leek Orchid (*Prasophyllum caniculatum*)



Also seen here was the large bird orchid, *Chiloglottis valida*, whose flowers were largely spent, but some plants showed the unusual elongating stems supporting the seed capsules.

In the second and smaller flat, we discovered *Prasophyllum caniculatum* among the *Poa* tussocks plus spent flowers of *Diuris monticola* and *Diuris* sp.

Our next objective was to find the special sun orchid that grows in hanging swamps of sphagnum, *Baeckea* and *Leptospermum* above the Flats.

After a bit of scrub bashing, Eyal located a substantial patch of veined sun orchid, *Thelymitra cyanea*, with a few open flowers. Note the curious spiral twist of the column arms.

Our next target was the sickle greenhood, *P. falcata*. We returned across the flat to the creek that divides the two flats and eventually found a small patch of this species on the creek bank. This large greenhood is characterised by its green labellum.



Veined sun orchid (*Thelymitra cyanea*)



Sickle Greenhood (*Pterostylis falcata*)

We also kept a lookout for the small mountain greenhood, *P. anoema*, that is known from the Flats, but we did not see it.

We returned to the road and did a short roadside walk looking for hyacinth orchids. Eyal quickly located the only specimen of *D. roseum* growing high on the bank. There were also many spent



Rosy Hyacinth Orchid (*Dipodium roseum*)

potato orchid stems, *Gastrodia* sp., at the base of several gum trees.

Besides the flower display in the Flats, there were butterflies, day-flying moths and other insects in abundance and we were inevitably pursued by blood-seeking March Flies. Unfortunately, we did not see any pollinators visiting the orchids, but this requires a much longer, time-consuming effort and patience.



Anisynta dominula (Hesperiidae) 2-branded grass skipper feeding at *Hypoxis*.



Phalaenoides tristifica (Noctuidae: Agaristinae)



Euphyia perornata (Geometridae)



Unidentified Male Ichneumon wasp perched on a Vanilla Lily



Australian Native Plants Canberra Region plant sale

What to Buy?

Text and photos by Masumi Robertson

Our autumn plant sale is on this month and autumn is the best time to plant many native plants, when the soil is still warm for good root growth so that plants can settle in before the winter. Also the days are kinder to gardeners and plants; plants are less likely to die from thirst and the scorching sun. So what to buy?

There is a detailed guide to choosing plants for a designed garden in our book, pages 18 through to 22 of *Australian Plants for Canberra region garden and other cool climate areas*, 5th edition. Basic information such as plant size, growth habit, leaf and flower colours, when it flowers, and soil and sun/shade requirements, is on the label, as well as in our book to help you choose a plant.

But there are other considerations.



What about frosts? This is the most frequently asked question, is it frost hardy? It is assumed that a plant is frost hardy to -7C when there is no mention of a need for frost protection on our labels. More on this later.

Where are they from?

When deciding on a species, I generally try to plant a [LOCAL] species, if possible. These are plants propagated using seeds and cuttings of plants originating within a 50km radius from the Canberra GPO. As such they are the most adapted to our climate. They may be endemic (unique to our region) or indigenous (growing locally and also elsewhere).

This difference is important because some species occur across Australia, especially when they occur in Queensland and/or the Northern Territory.

Variation within a species

Now back to frosts. Even though a label does not mention the need for frost protection, not all plants of a given species are frost hardy. Some species have a wide distribution within Australia. Plants sourced from northern Australia, such as Qld and NT, are not likely to be frost hardy.



Chrysocephalum apiculatum

For example, *Chrysocephalum apiculatum* is a highly variable groundcover and found throughout all states and territories, including the Australian Capital Territory. So it is indigenous, but not endemic.

Local forms are much more reliable and there is even an Australian Cultivar Registration Authority (ACRA) cultivar called 'Canberra Carpet', listed in our Plant Label Database as *C. a.* (green suckering) [LOCAL].

Endemic plants are more uniform

The local forms are not as essential for some endemic plants, such as *Grevillea diminuta* and *G. iaspicula*. Brindabella Grevillea and Wee Jasper Grevillea occur in the Brindabella Ranges and a small area around Wee Jasper along the shores of Lake Burrinjuck, respectively, as the names indicate, nowhere else.



Grevillea diminuta along a track to Prior's Hut



Distribution of *G. diminuta*;
Photo: The Australasian Virtual Herbarium

The society sells local and non-local forms of these species. I presume non-local forms were propagated from plants just outside the 50 km radius!

But the climate for the area inside and outside the 50 km radius for these species is very similar to Canberra, if anything, colder, so for these endemic plants, a choice between local and non-local plants probably does not make much difference to how well they do in a Canberra garden.



Bossiaea grayi

I know of just one species which occurs only in the ACT, thus both local and endemic. It is *Bossiaea grayi*, a Murrumbidgee pea. It is a newly described shrubby pea growing along the Murrumbidgee River. Some of these populations were discovered by our Wednesday Walkers.

How about all those non-indigenous plants??

The majority of plants are non-indigenous. But plants growing in a similar climate area as the Canberra region are expected to do well in Canberra. Plants originating from relatively cold and dry areas of NSW, Tas, Vic and SA are better suited than those from northern NSW, Qld, NT and most of WA.



Callistemon subulatus

Plants from the coastal areas of the south-eastern states are often damaged by our severe frosts. *Scaevola aemula* is a container plant. Grow it as an annual, or for a warm microclimate spot, as stated on our labels. It just cannot survive through our winters. But another coastal plant *Callistemon subulatus* is hardy and long-lived in Canberra.

Conditions for the majority of Australia are very different to Canberra. Most plants originating from these areas will struggle to do well in Canberra. It is useful to understand their native conditions (soil, temperature and sun) and to recreate similar conditions in our gardens for these non-indigenous plants.

Banksias, for example, are among the best-known native plants. The majority of this species occur in WA, often in deep sand. Only one species is native to the ACT, *B. marginata*.

In addition to *B. marginata*, Banksias from the eastern states, such as *B. ericifolia*, *B. integrifolia*, *B. serrata* and *B. spinulosa* are hardy, but none of the WA species is, so they do need much



Banksia marginata in Namadgee National Park



Banksia ericifolia

care in the ground or need to be grown in containers. Many WA species will not grow here at all.

Seed vs cutting grown

Native plants may be propagated by seed or by cuttings and divisions.

Many of the plants at our plant sales are propagated by cuttings such as Callistemons, Correas, Croweas, Eremophilas, Grevilleas, Melaleucas and Westringias, even though they



Rooted cutting

do produce seeds. This is to maintain the plant size, flower colour etc of the source plant. And the seeds of some of these are very difficult to germinate. Others, such as Acacias and Eucalypts, are usually propagated by seeds, because it is difficult for these cuttings to root. Seed grown plants are variable as they contain genetic diversity.

For woody species which can be propagated by cuttings or seeds, I try to buy cutting-grown plants because of the additional time needed for seed-grown plants to flower. Some seed grown plants, especially shrubs and trees, may take several years. Cutting-grown plants are usually already in flowering mode, so they flower right away, but seed-grown plants need to go from their vegetative to their reproductive phase.

This is most apparent for Eucalypts; their young plants show juvenile leaves and flowering plants adult leaves. Plants such as Banksias and Hakeas often take a number of years before a plant is ready to flower. For example *B. spinulosa* var *spinulosa* may take eight years to flower. If your plants have not flowered for a number of years, they may have been grown from seed.

Are clones identical?

Species can be variable, some quite a bit. But cultivars and special form plants are the same, at least so we have been told. Cultivars and special forms are clonally propagated by cuttings or divisions (a form of cuttings), so the form of the propagated plants is supposed to be identical to the source (not the parent) plant. Their genetic makeup is the same, so the plants should grow the same. This is indeed often the case.

However, there is variation within a clone. The same cultivar responds differently to Canberra garden conditions when brought back from a plant sale, including our plant sales. I have found that plants grown locally are of hardier stock, probably because these plants are propagated from plants performing well in local gardens. In contrast, plants grown in milder climates are not acclimatised to our conditions and it may take a season or two for them to settle in and survive our climate.

Plants grown in full sun on benches, as they do at Greening Australia and Yarralumla Nursery for hardy natives, are ideal. Some plants at our plant sales are grown continuously in the



Shade [left] and sun [right] grown plants

sheltered conditions of a plastic tunnel or shadehouse and these plants are not as sturdy. Choose dark green, strong-looking plants, even when they are shorter. Remember, you are not buying spinach, as Gwyn and Geoff used to say. Spindly, weak-stemmed plants are less likely to survive when planted out in the garden.

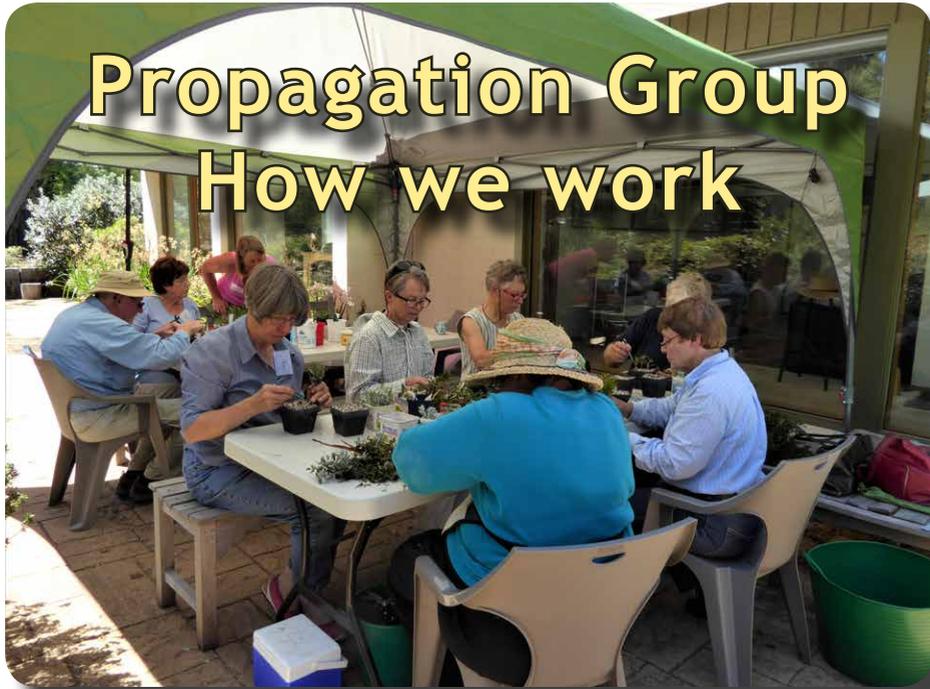
You can find out where a plant occurs naturally in our book, or look it up in the Australian Plant name index (APNI) (<https://biodiversity.org.au/nsi/services/apni>) or the Australian Virtual Herbarium (AVH) https://avh.ala.org.au/search/#tab_simpleSearch. Or just look for plants with [LOCAL] on their labels at our plant sales.



Snow on Canberra-grown plants

Propagation Group

How we work



Text: Nola McKeon; Photos: Masumi Robertson unless otherwise stated

ANPS Canberra has been growing plants for the last forty years or so. This is an outline of how the current Propagation Group produces plants.

We are about 16–18 regulars, and others less regular, who turn up most months to cutting or potting bees. These are held in members' yards; mainly, but not always, in yards that house one of our shade houses or hot beds.

When a **cutting bee** is scheduled people bring along cuttings from their gardens or from potted plants they've recently bought. We share the cutting material with each propagator preparing one species at a time and placing the cuttings into the prepared punnet of cutting mix.

The punnet is given a label that records: name of plant, source of the cuttings, date of the cutting bee, hormone used and number of cuttings in the punnet.

All this information is also recorded on the cutting sheet of the day, to be later entered into our propagation database. Punnets are watered and placed in the hotbed — which maybe a few metres or many kilometres away.

Potting up sessions are normally held in the yard of a shade house to avoid too much heavy lifting and moving. At present the Society owns two shade houses. We use a third that has been generously built and made available to us by one of our members who also is the minder for that shade house.



Neither of these regular propagation activities happens without a significant amount of preparatory and follow-up work. The materials used for our cutting mix need to be bought, transported, mixed and placed in punnets.

Baskets of these punnets have been prepared and brought to each cutting bee by one of our members for many years along with hormone, pencils, secateurs. Similarly, other members have been purchasing, transporting and storing the materials for our potting mix.

At the beginning of each monthly activity, tables are set up; water, buckets, mixes, pots and trays are readied. At the end of each session, of course, members clean up and pack away all these materials and do a stocktake of the day's output.

Most, who can, stay after the session and we enjoy a shared meal which can be quite a surprise depending on who brings what on the day. No coordination goes into this but it is always quite a relaxing, enjoyable time.

Potting up, obviously, involves tipping rooted cuttings out of their punnets and placing each into individual pots. We then record how many cuttings reached potting up stage. That information is later added to the database. Potted plants then sit in the shade house under the watchful eye of a minder while they become established and grow.



Enjoying a shared lunch; Photo: Lyndal Thorburn

Also enjoyable is the shared experience of working together, learning about the plants we can grow locally. There is an amazing amount of plant and propagation knowledge within the group that members are very happy to share.

If you are new to propagating and would like to learn more, we are holding an instructional session for our 7th April cutting bee. Watch the *Bulletin* for details.

What else does the Propagation Group do?

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The Group looks after shade houses and hot beds. These are housed within members' yards. We currently have one of each looking for a new home.

What is involved in:

- Hosting one of these facilities, and
- Being a 'minder'. A 'minder' is the member/s who looks after the facility and the plants within.

Hosting/Minding a Hot Bed

The hot bed takes up an area 2.5m X 90cm, typically against a north- or east-facing house wall. Although the one currently on the south is quite successful. It needs to be out of direct sunlight and requires access to mains water and electricity. The host will normally be the minder also.

This means:

- checking punnets about once a week to make sure the system is working, that the balance of heat and water is correct,
- removing any dead cuttings,
- soaking misters regularly in vinegar to remove mineral deposits,

- maintaining the capillary matting by keeping it swept of spilled cutting mix,
- adjusting the temperature settings with seasonal changes.



Cuttings in punnets on a hot bed

Hosting a Shade House

The shade house takes up an area of 6.25m X 3.4m and needs access to both electricity and water. You would cast an eye over the automatic watering system to see that all sprayers are working and adjust it seasonally as to accommodate changing weather and plant needs.

Shade house minder

A shade house minder is not always the same person as the host. The minder watches for signs of over/under watering, disease and pests (caterpillars), weeds, treats for growth of moss/lichen, prunes when necessary,



Maureen taking stock for the autumn sale, Queanbeyan shadehouse; Photo: Ian Tranter

Cook shadehouse; Photo: Nola McKeon

fertilizes, advises if plants need potting on, prepares the list of plants for the Society's autumn and spring sales, orders plant labels, inserts labels and organises transport to the sale.

Other members of the Propagation Group are available to help with these jobs in the lead-up to the sales and at other times when needed eg when the minder takes holidays.

Shade house and hot bed hosts

Shade house and hot bed hosts would also need some space to allow for setting up tables for a propagation bee either one, two or three times a year. The cost of electricity and water for running a hot

bed or a shade house is covered by an annual payment from the Society. ANPS Council has also funded the move to and installation of facilities at a new site. Assistance is also available for technical problems that may arise over time.

The shadehouse is surrounded with plastic sheeting which can be lifted along one edge for access. It needs to be out of direct sunlight or to be able to be screened from direct sunlight, particularly in autumn when the sun can be quite strong and there is a chance of wilting cuttings.

Mains water is plumbed in and controlled by a 12V controller which requires an external powerpoint. Power is also needed to run the heatmat which is sited under the plants and keeps the setup at about 21° Celsius.

Water is sprayed over the top of the punnets on a timer which runs

automatically during daylight hours and also trickles onto a wet mat underneath the punnets and above the heat mat. Very little water escapes the hotbed itself.

The person hosting the hotbed is also usually the hotbed minder. Punnets need to be checked about once a week to make sure the system is working, that the balance of heat and water is correct and to remove any dead cuttings.

The hotbed needs to be cleaned about once a year as moss and liverwort like to grow in the damp and warm conditions.

If you are considering hosting/ minding a hot bed or a shade house please contact our Propagation Group coordinator, Nola McKeon: nola_mckeon@hotmail.com for more information.



The group about to start off, with our host (taller than the rest of us); Photo: Andrew Zelnik

By Margaret Ning

[In October 2018] twenty visitors went on a morning walk for a couple of hours at 'Ballyhooly', south-east of Bungendore NSW, the property of the Mossops, Friends of Grasslands members.

We headed north for over a kilometre to the top of a saddle where our hosts thought we had the most chance of seeing an orchid. They were right! A pretty pink *Caladenia carnea* greeted us. Over the next 50 metres or so we



Caladenia carnea; Photo: Brigitta Wimmer

managed also to see the leaves of Greenhoods, Parsons Bands and Donkey Orchids. Heading back we continued to add to the species list.

After a very civilised break in the middle of the day to have lunch, ten of us went out again for another couple of hours' walking, in a different direction, along a spring-fed drainage line this time.

The property consists mainly of open forest, with occasional more open areas with patches of grassland forbs. It was obvious that in a good year it would be a magnificent sight in spring. We must visit again in such a year. For today, the weather was perfect, with no rain but a couple of slightly misty patches.

The kangaroo lawn effect, this time, meant we saw slightly fewer species than on our last visit, because a dozen grass species were too short to be identifiable! The kangaroos are even eating the Red-anthered Wallaby Grass (*Rytidosperma pallidum*) around the house. Although the property is the driest it's been in 15 years, we still managed to add 25 species to their plant list.



Bark damage on eucalypt; Photo: Roger Farrow

We saw a Brittle Gum with extensively damaged bark. Roger's query about it to Dr David Lindenmayer at ANU produced this response:

'Hi Roger — three things can do this:

- *Yellow-bellied Glider — but the trunk is not well incised to bleed the eucalypt sap;*
- *Koalas sometimes do this — searching for extra salts;*
- *Cockatoos can do this — part of beak health. This seems too extensive for that, but still plausible.'*

However, Rod Pietsch expressed doubts about Koalas and Gliders in this area and suggested the bark chewers may be Brushtail Possums. [Andrew Zelnik advised that Rod Pietsch has later indicated the bark damage could have been caused by cockatoos or galahs, not possums_ed].

With Roger Farrow, there were diversions to insect happenings, like Wattle Tick Scale Beetle. Andrew Zelnik's photo shows the Wattle Tick Scale Beetles *Cychramtodes murrayi* (black) doing biological control of the wattle tick scale, as can be seen by the scale marks on the left. For Roger, finding these beetles made his day!



Wattle Tick Scale Beetles *Cychramtodes murrayi* (black) controlling wattle tick scale; Photo: Andrew Zelnik



Notechis scutata, Tiger Snake; Photo: Janet Russell



Leucopogon fraseri; Photo: Janet Russell.



Leucopogon fraseri, showing its size compared to a 5c coin; Photo: Andrew Zelnik



Button Everlasting *Coronidium scorpioides*; Photo: Andrew Zelnik

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Insect Pollination of the Endangered Merimbula Star-Hair (*Astrotricha* sp. Wallagaraugh)



Volunteers, including Christine Kendrick, searching for insect pollinators on a magnificent, but vulnerable Star-Hair growing up against a suburban fence and bordered by a cleared firebreak

Text and photos: Roger Farrow

Last November I volunteered to assist in a workshop and field study of potential pollinators of the endangered Merimbula Star-Hair *Astrotricha* sp. Wallagaraugh at Tura Beach north of Merimbula. The largest populations of this undescribed species occur in

coastal woodland and forest at Tura where they are under threat from habitat destruction by urban expansion.

This plant is being studied by staff of the Threatened Species Unit of the NSW Department of Environment and Heritage, ably assisted by a team of local volunteers, most of whom belong to the

South Coast Atlas of Life. The object of the day's activity was to determine how many insects pollinate flowers of the Merimbula Star-Hair in the Tura Beach reserves and whether this is a factor in any threatening processes affecting the survival of this species.

Background

Insects visit angiosperm flowers to feed on pollen and nectar and sometimes petals and sepals. In doing so pollen grains adhere to their body parts and may be transferred to other flowers on the same plant, to flowers on other plants of the same species and to flowers of other plant species.

For most angiosperms, insect transfer of pollen is the principal method of cross-fertilisation and plants adopt different strategies to attract insects to their flowers in terms of visual appearance (structure, colour and patterns) and scent.

Insects vary in their effectiveness as cross-pollinators. Those with hairless bodies carry little pollen (eg some beetles) whereas those covered with bristles or those that transport pollen to their nests (eg some beetles, flies and bees) may carry many pollen grains. Some nectar feeders may not even touch the anthers when feeding and do not carry any pollen grains (eg some moths and butterflies).

The genus *Astrotricha* belongs to the family Araliaceae (the Ivies) which is allied to the sister family Apiaceae (carrots). The only other local member of the family is the familiar Elderberry *Panax*, *Polyscias sambucifolia*. There are 11 described species of *Astrotricha* in NSW plus at least five undescribed



A slender bee fly, *Geron* sp. (Bombyliidae) feeding on pollen of the Star-Hair. Its hairy body is covered in pollen grains



Spotted amber ladybird, *Hippodamia variegata*, (Coccinellidae) feeding on nectar. Its smooth body surface is largely free of pollen grain

species, one of which is the threatened Merimbula Star-Hair. This is confined to three localities in NSW, namely Tura Beach, Middle Beach at Merimbula, and the Wallagaraugh River. There are some populations in nearby parts of Victoria. The largest populations are found in the Tura Beach area where they occur in remnant patches of open eucalypt forest that are threatened by clearing for urban expansion. There is an additional small population nearby at Middle Beach on Long Point. At Tura, the Star-Hairs occur in bracken-dominated understory among scattered *Banksia*, *Kunzea* and *Leptospermum* species.



Among other factors affecting the survival of Merimbula Star-Hair populations is its level of natural regeneration and the efficacy of seed production from insect-mediated cross-pollination.

The Plant

Merimbula Star-Hair is a multi-stemmed, straggly bush from one to two metres in height with each branch terminating in a compound inflorescence. Individual plants may carry a few to up to hundred or so inflorescences.

The small cream-coloured flowers of this *Astrotricha* (photo above) are arranged in umbels with three to four orders of branching panicles, consisting of several hundred individual flowers that are tightly compressed within each umbel. The flowers are quite visible to potential insect visitors. Individual flowers are protandrous, that is, the anthers mature first followed by the bifurcate styles. The flowers appear to secrete nectar and have a faint but pungent odour.



Typical umbel of the Merimbula Star-Hair



Anther-bearing stage on left, style-bearing stage on right

Field Observations

The volunteers visited several different populations of the Star-Hair in the Tura Beach area over a period of about three hours on November 24 and recorded the different insects visiting the flowers by photography, direct observation and capture.

The weather was relatively cool and windy with a maximum temperature of 21C (Merimbula Met Station), not ideal for insect activity and flower visits. The insects in the images and the captured

specimens were subsequently identified by myself and colleagues.

RESULTS

Table 1 presents a combined list of insects seen visiting the inflorescences of the *Astrotricha* that day, what they were seeking (pollen or nectar or both) and an estimate of their effectiveness as pollinators (a pollination transfer rating poor<moderate<good), based on the relative amount of pollen grains seen on the insect's body surface from the photographs.

Order	Family	Genus & Species	Food	Pollination Transfer Rating
HEMIPTERA Bugs	Pentatomidae Shield bugs	<i>Cermatulus nasalis</i>	Nectar	Poor
		<i>Ocirrhoe unimaculata</i>	Nectar	Poor
	Rhyparochromidae Seed bugs	<i>Dieuches sp</i>	?Nectar	Poor

COLEOPTERA Beetles	Buprestidae Jewel beetles	<i>Diphucrania sp</i>	Nectar & Pollen	Mod
	Cerambycidae Longhorn beetles	<i>Syllitus sp</i>	Nectar	Poor
	Chrysomelidae Leaf beetle	<i>Adoxia benallae</i>	?Pollen	Poor
	Coccinellidae Ladybirds	<i>Hippodamia variegata</i>	Nectar	Poor
		<i>Coccinella transversalis</i>	Nectar	Poor
		<i>Scymnus sp</i>	Nectar	Mod
	Curculionidae Weevils	<i>Meriphys ?humeralis</i>	Pollen	Mod
	Lycidae Net-winged beetles	<i>Porrostoma rhipidium</i>	Pollen & Nectar	Good
	Melyriidae fPoorer beetles	<i>Carphurus sp</i>	Pollen	Mod
		<i>Dicranolaius sp</i>	Pollen	Good
	Mordellidae Tumbling fPoorer beetles	<i>Mordella sp</i>	Pollen	Mod
Tenebrionidae Darkling beetles	<i>Lepturidea sp</i>	Pollen & Nectar	Mod	
Unknown	Sp	Pollen	Mod	

Order	Family		Genus & Species	Food	Pollination Transfer Rating
DIPTERA Flies	Asilidae	Robber flies	Sp	None	Poor
	Bombyliidae	Bee flies	<i>Geron</i> sp	Nectar	Good
	Bibionidae	March flies	Sp	Pollen	Mod
	Calliphoridae	BPoor flies	<i>Lucilia cuprina</i>	Pollen	Mod
	Lauxanidae	FPoorer flies	<i>Sapromyza</i>	Pollen	Good
	Muscidae	House flies	Sp	Pollen	Mod
	Platysomatidae	Broad-headed flies	<i>Rivellia</i> sp	?Pollen	Poor
	Sarcophagidae	Flesh flies	<i>Sarcophaga</i> Sp	Pollen	Mod
	Syrphidae	Hover flies	<i>Melangyna</i> sp	Pollen	Good
Tachinidae	Bristle flies	<i>Sp</i>	Pollen	Good	

HYMENOPTERA Ants, bees wasps	Apidae	Bees	<i>Apis mellifera</i>	Pollen & nectar	Good
			<i>Exoneura</i> sp	Pollen	Good
	Colletidae	Bees	<i>Leioproctus launcestonensis</i>	Pollen	Good
			<i>Leioproctus ?thornleighensis</i>	Pollen	Good
			<i>Homalictus urbanus / holochlorus</i>	Pollen	Good
	Formicidae	Ants	<i>Camponotus nigriceps</i>	Nectar	Poor
			<i>Myrmecia</i> sp	Nectar	Poor
	Vespidae	Wasps	<i>Eumeniinae</i>	Nectar	Mod
	Thynnidae	Flower wasps	<i>Rhagigaster ephippiger</i>	Nectar	Mod

LEPIDOPTERA Butterflies & Moths	Hesperiidae	Skippers	<i>Toxidia doubledayi</i>	Nectar	Poor
	Lycaenidae	Blues	<i>Zizina otis</i>	Nectar	Poor
	Cosmopterigidae		Sp 1	Nectar	Mod
			Sp 2	Nectar	Mod
	Zygaenidae		<i>Pollanius subdolosus</i>	Nectar	Mod

Good pollinators in red

The overall visitation rate on the *Astrotricha* flowers during the approximately three hours of observation was quite low, compared

with the numbers of insects seen on the flowers of adjacent *Kunzea* and *Leptospermum* shrubs. This suggests that the latter were more attractive sources of pollen and nectar.

However, the diversity of visitors was high. Forty different insect species belonging to 32 families were recorded visiting flowers in three hours (Table 1). These comprised 13 species of beetle (Coleoptera), 10 species of fly (Diptera), five species of bee (Hymenoptera; Apidae) and a few species of bug (Hemiptera: Pentatomidae), wasp (Hymenoptera: Vespidae), ant (Hymenoptera: Formicidae), butterfly and moth (Lepidoptera).

Of these 40 species, only 10 could be regarded as good pollen vectors, namely, the five bees, four of the six flies and only two of the 13 beetles (Table 1). The butterflies, moths and bugs are considered moderate to poor pollen vectors.



BEEETLES — Tumbling Flower Beetle, *Mordella* sp, pollen and nectar feeder



FLIES — Flower Fly, *Sapromyza* sp, pollen feeder



BUGS — Shield Bugs *Cermatulus nasalis*, nectar feeder



BEEES — Burrowing Bee, *Leioproctus launcestonensis*, pollen collector

The faint but pungent scent (to humans) from the flowers would be more attractive to flies and beetles than bees and this is borne out by the observations. Compound inflorescences, such as these, tend to be pollinated by crawling insects rather than insects that fly directly to individual flowers, such as the larger species of bee and the introduced honey bee, *Apis mellifera*, was rarely seen at the flowers.

Conclusions

We can conclude from this preliminary study that seed production in the *Merimbula* Star-Hair is unlikely to be restricted by the lack of effective insect pollinators. Like many native species, it has a generalist pollination strategy attracting a wide range of different insect species that feed on its pollen and nectar.

Experimenting with the terrestrial orchid *Pterostylis pedunculata* as an indoor plant

Text and photos by Janet Russell

At one of the Australian Native Plants Society (ANPS) biannual sales, when I was on duty at the information tent, a young man asked whether I knew of any native plants that would grow indoors. He had just moved into an apartment. We had only just moved into our own apartment and I had to confess I had no idea. I suggested that he experiment and write and tell us how he got on. The idea of growing native plants indoors has exercised my mind since.

We bought the Maroonhood, *Pterostylis pedunculata*, at the ANPS plant sale in 2008. It is a Canberra plant. I have written about them before under the guise of *Pterostylis curta* or simply *Pterostylis* sp* until I found out from an expert what species they were.

We had 40 plants by 2012. I have lifted them several times since, and when we had too many plants for the pot last year I transferred some into four smaller pots which have been sitting on the balcony. I had no idea how many plants I had transferred to each pot as the corms sometimes may be no bigger than a particle of soil. The four pots all sprouted leaves, I gave one pot away and brought the other three inside.



Pterostylis pedunculata in a 30 cm diameter pot on our balcony in 2016.

This was in the nature of an experiment to see if they could live in our heated apartment. They do get respite from the heat when the heating is turned off at times during the day and overnight. Apart from whether they survived or not, I wanted to see whether they would grow towards the light.

One pot is on a table about a metre from the window. These orchids have grown straight as ramrods without a nod towards the light, and all three that are flowering face different directions. None face south towards the light; all are facing away from each other towards the other three points of the compass.

I checked the larger pot outside, which has more flowers, and the flowers do all



One of our indoor flowering *P. pedunculata*, about 10 cm tall.

tend to face outwards. I suppose that makes sense if they are looking to get their flowers pollinated by a gnat or other flying insect. It may not be something immediately obvious in the field because they often do not flower together in large numbers.

Some of the plants were flowering and others were on their way when I brought them in, but there is one pot where all the plants are still only at the leaf stage and they have remained so with no signs of a stem.

While *Pterostylis* sp. are not the most spectacular of flowers, having them accessible encourages you to look at them more carefully as you pass by. The delicacy, colour and detail are easier to appreciate.

However, as time has passed, the indoor plants have withered and faded while the outdoor orchids have mostly remained robust and still a rich maroon colour.

This year I placed the outdoor orchids out of the sun, but still with access to light, because the leaves usually start looking dry and distressed before the flowers fade. They have had a long flowering and even now they are looking fresh except for two or so.

However, I thought that they are also looking spindly. The tallest one is 28 cm which is taller than the average height of them: say, 22 cm. According to *NSW Flora online* they can grow to a maximum of 25 cm so perhaps most are not spindly after all and they are in the perfect spot outdoors.

* eg <http://fog.org.au/Newsletters/2012-05newsletter.pdf> p.7; <http://fog.org.au/Newsletters/2016-01newsletter.pdf> p.12; <http://fog.org.au/Newsletters/2016-09newsletter.pdf> p.10.

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The flower stems vary considerably in height

Native cherries are a bit mysterious, and possibly inside-out

By Gregg Müller, Lecturer in Natural History, La Trobe University

People don't like parasites. But there's a local Aussie tree that's only a *little bit* parasitic: the native cherry, or cherry ballart.

It's what we call *hemiparasitic*. It can photosynthesise, but gains extra nutrients by attaching its roots to host plants.

The native cherry, *Exocarpos cupressiformis*, might be our most widespread root hemiparasite tree, but we're not quite sure — root-parasitic shrubs and trees are a bit of a research blank spot. We are not even really sure who all the hosts of cherry ballart are.

Although other parasites — like mistletoes — have a more direct Christmas association, cherry ballart does have an Australian Yuletide connection: their conifer-like appearance (the species name *cupressiformis* means 'cypress-like') was noted by homesick European settlers, who chopped them down for Christmas trees.

On the map

Cherry ballart grows from the Atherton Tablelands in Queensland to southern

Native cherry

Botanical name: *Exocarpos cupressiformis*
Family: Santalales Height: 3-8m

Native cherry is a 'hemiparasite': it can photosynthesise but also attaches its roots to other plants for extra nutrients.




The 'fruit' is actually a swollen stem. Europeans thought a cherry with the hard bit on the outside fit well into this topsy-turvy land.

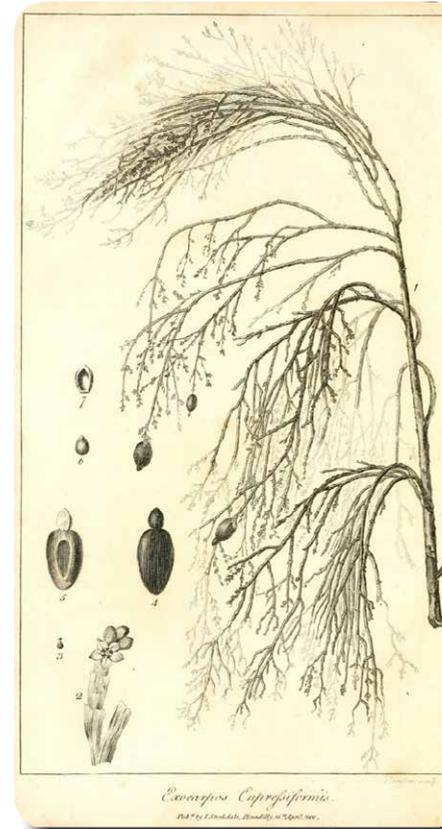


The Conversation Beating around the bush

Tasmania, and across to the Eyre Peninsula in South Australia.

The first European to record it was Jacques-Julien Houtou de Labillardière, the botanist on d'Entrecasteaux's expedition in search of La Perouse. He formally described the species in 1800, but we have no physical type specimen — the botanical type is his illustration and description.

Maybe he lost his specimen, or disposed of it, or thought a picture would do;



Jacques-Julien Houtou de Labillardière's description of the native cherry. Voyage in search of La Pérouse

Jacques seems to have been a bit cavalier with his record-keeping.

Or perhaps it was stolen or misplaced after all his specimens were seized in an overlapping series of defections, wars, defeats and revolution as the expedition tried to return to Europe. The collection was eventually returned after the intercession of English botanist Joseph Banks — but no cherry ballart.

Its distinctive shape led to native cherry being marked on early Australian

orienteering maps, since they are in a cartographic Goldilocks zone: obvious, just numerous enough to make them useful, but not so many as to clutter the map.

That was until Australia held the World Orienteering Championships in the mid-1980s, when the standardisation of Australian orienteering maps for overseas competitors led to the cherry ballart becoming an early victim of internationalisation — at least cartographically speaking.

Its utility also extended to the timber. Among the uses of its 'close-grained and handsome wood' are tool handles, gun stocks and map rollers (although the last is probably a niche market these days).

Indigenous Australians ate the fruit, used the wood for spear throwers and reportedly used the sap as a treatment for snakebite. They called it Tchimmidillen (Queensland), Palatt or Ballot (Lake Condah, Victoria) and Ballee (Yarra).

Grow baby, grow!

Despite producing large quantities of fruit and seed, no one seems to be able to get native cherry to germinate reliably. There are anecdotal reports that feeding the seed to chooks works, but other growers dismiss this approach.

The edible fruit isn't actually a true fruit: it's a swollen stem. It's reported to have the highest sugar level of any native fruit in the forests of southern Victoria and is much tastier than you'd think a stem would be. (It's also probably an important nutrient supply for some birds, but that's yet another thing we are yet to prove.)



The sweet and delicious fruit of native cherries is actually a swollen stem.
Arthur Chapman/Flickr, CC BY-NC

This odd 'fruit' gives rise to the genus name (*exo* = outside, *carpos* = fruit,) and was often touted by early European writers as another example of the topsyturvy nature of Australia — 'cherries' with the pit on the outside went along with 'duck-billed platypus', animals with pouches, trees that shed bark rather than leaves, and Christmas in the middle of summer.

Despite their oddness, native cherries in the bush are biodiversity hotspots. My camera trap data show they preferentially attract echidnas, possums, foxes, swamp wallabies, white-winged choughs and bronzewing pigeons.

This might be because they modify their immediate environment. My research shows they create moderate micro-climates in their foliage, reduce soil temperatures, increase soil water retention, concentrate nutrients in the soil beneath their canopies, and alter the understorey vegetation. They also kill some of their host trees, creating patches with higher concentrations of dead timber. All these probably have something to do with their animal attraction, but exactly how is a mystery yet to be solved.

In addition to their attractiveness to vertebrates, native cherries are required hosts for some striking moths and share

specialist host duties with mistletoe for some of our most beautiful butterflies (although mistletoes take most of the glory in the scientific literature).

My research into our cherry ballart hopes in part to correct these historical slights. I want to set the record straight on this overlooked

widespread and attractive little tree, which has a long indigenous use and was one of the first of our native flora to be described by Europeans.

This article was previously published on *The Conversation* 14 December 2018

<https://theconversation.com/native-cherries-are-a-bit-mysterious-and-possibly-inside-out-108760>

Study Group Notes

By Brigitta Wimmer, Study Group Liaison Officer, ANPS Canberra Region

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- Queensland Conservation Garden
- Joan Zande Garden
- Australian Native Plants Nursery, Ojai Valley, California, USA
- Planned New Banksia Garden @ ANBG
- Fig on a Brick — Bonsai
- A Glimpse of my Habitat Garden

- 'Terra Australis' opened in November
- From the Post Box
- Coming 'Garden' Events
- Membership Matters

Waratah and Flannel Flower Study Group Newsletter 16, November 2018

- Maria writes
- From the members
- Hybrid Waratah flowers
- Flower malformation
- forsythia
- Flower Knowledge Centre
- Climate Change
- Arts & Crafts Movement
- Sylvan Grove Native Garden
- Trickett/Bate garden
- Checklist of Telopea species and varieties
- Checklist of Actinotus species and varieties



Wurmbea dioica subsp. *dioica*, Sutton, NSW;
Photo: Gail Ritchie Knight
This past spring was not a good season for Early Nancies. I counted about half a dozen in all on my property.

Australian Native Plants Society, Canberra Region Inc.

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

Meetings are held at 7.30pm on the second Thursday of each month, February to December, in Canberra. Visitors are always welcome.

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

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

Website: nativeplantscbr.com.au

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Back cover: *Melichrus urceolatus*, Sutton, NSW; Photo: Gail Ritchie Knight

Membership Fees

Single or family memberships are the same price.

Basic membership including Bulletin and Journal — \$35 (\$18*)

Full membership including Bulletin, Journal and Australian Plants — \$50 (\$33*)

Life member subscribing to Australian Plants — \$15

* Concession rates apply to pensioners (Centrelink), full-time students and unemployed.

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