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# Northern Group Newsletter

September 2023

September has been busy, too busy, to fit comfortably into one newsletter. The opening event, the Horticultural Show, (report in last newsletter) was the first in this incredibly busy month with numerous excursions, garden visits, two-for-one speakers - all of which have led to 26 pages for just one month.

★ **Saturday, 2 September, Propagation, Windsor Park Nursery**



As usual it was all to work at the nursery with the normal tasks which included shade house maintenance; spiking and working the potting mix; removing liverwort; and fertilising plants not yet done. On the outside racks there was some re-potting done. Westringias and thryptomenes needed sorting into their species names. In the Stables correas and croweas were the main cuttings.

< A sea of labels - the shade house is becoming over-crowded.



< *Baurera rubioides* looking healthy.  
*Ziera littoralis* ready to be potted on (below left).

Lush growth on the outside racks, ready for the sale. >







**Saturday 2 & Thursday 7 September, Working Bees at Cambridge St. Reserve.**  
**Wednesday 13 September, APST Reserves Conservation Committee Meeting**

Members continue to make steady progress in the war on weeds which continues at Cambridge Res. but soon members will also be planting grasses for example. In addition it was pleasing to have CoL cooperation for an urgent spraying of three cornered garlic which is infesting a large area. The progress is noticeable and encouraging for those few who give their time each month.

The meeting held at Dale's place focussed on the upcoming flower walks at Cambridge St. and Carr Villa Reserves. Details of the arrangements for advertising of the walks in the neighbourhoods, signage etc. were decided. The Carr Villa flower walks will be the same time as Bioblitz which is run by Tamar NRM. It is hoped to gather a few more volunteers through these efforts.

This very active and effective Reserves Conservation group would welcome any new members, even the occasional working bee attendance would be very much welcomed, especially now that the Carr Villa Reserve is adding to the work load of the present members.

Contact Andrew Smith if you can help. Also keep up with events on our website and on the facebook site.



## 4 Garden Visits

It was a good decision made earlier this year that Sharon Percy would convene a number of visits to local gardens. Sharon has successfully arranged for viewings of four gardens this month.

On **Saturday 9th Sept.**, the first garden visit, was to Daphne and Peter's extensive spread on the Tamar bank at Dilston.

Daphne reported, the day was perfect, all the plants were in flower and the birds were singing.

*Phebalium daviesii* being neighbourly with spring bulbs. >



Ten members wandered among many different grevilleas and hakeas, noting *Hakea lissosperma*, *H. cucullata* and *H. cristata*. There were many clematis plants - both *C. aristata* and *C. microphylla* plus the first isopogans and banksias of the season.

*Hakea lissosperma* ↓

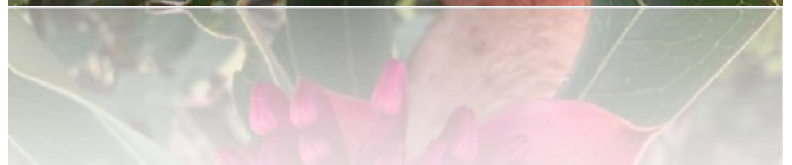
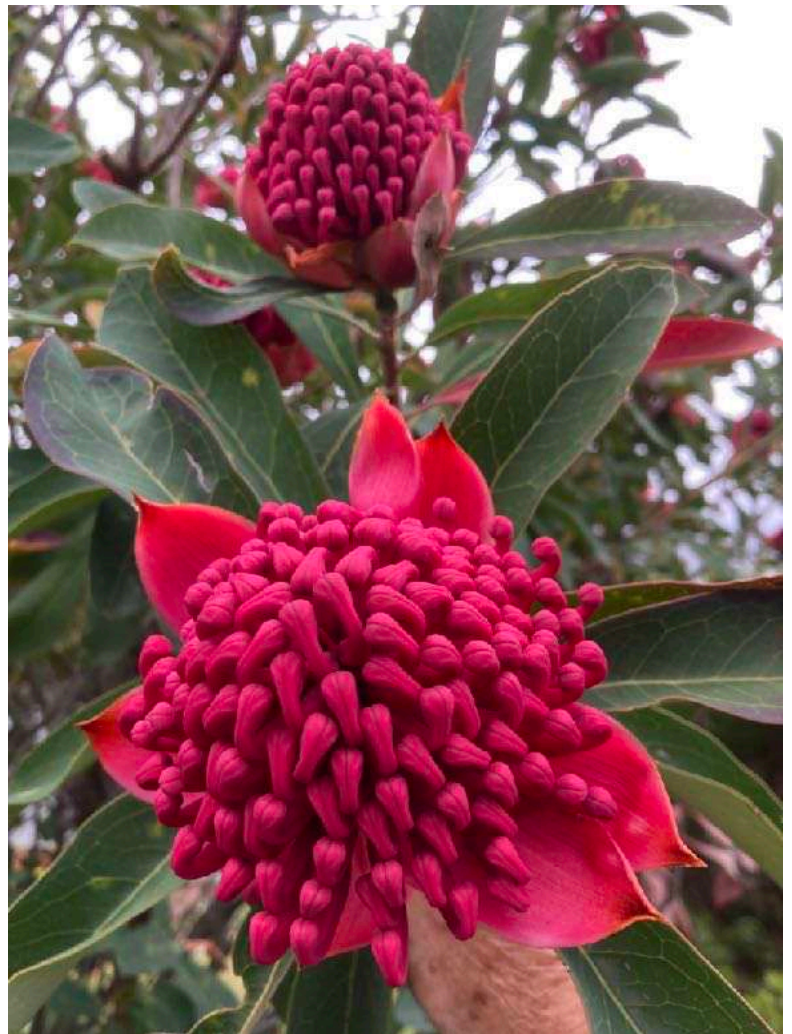
*Darwinia lejostyla* ↓





The next three gardens were viewed on **Saturday 16th September**. They were all in Far View Ave., Riverside.

Sharon's was the first of the morning. It is a 'well established mixed garden' but she and Mike have 'recently refurbished the front area with native plants.' She has this well established superb waratah making a show while she waits for the newly planted natives to catch up! v >







< Sixteen members took the opportunity to wander around the three different gardens, appreciating the wonderful displays and the careful work that they represented.

The second garden was a lovely, established, all native garden and as Sharon's camera shows the plants were at their floriferous best.

Below: *Leptospermum* 'Pink Cascade', with *Philotheca* plus an orange grevillea (centre) and *Phebalium* (right).



Janet's landscape shots below show the bed design and the scope of the garden that she described as 'one of the best she has seen!'



The third garden for the morning was a mixed garden, transitioning to native.

Sharon captured these bright leptospermums. < >



Below: *Grevillea endlicheriana* (JH), *Rhodanthe anthemoides* (SP) were at their vivid spring-time best.





### Sunday, Monday, Tuesday 10 - 12 September, Excursion to the Herbarium at UTas. + Extras

On Sunday a small group of APST-NG members visited Spinning Gum and Gravelly Reach Conservation Areas on the way to Hobart for an excursion which included a visit to the Tasmanian Herbarium, a couple of interesting small reserves in Kingston and the off-grid property owned by Peter and Robyn Tuft of the Hobart Group.

Thank you to Roy Skabo for this report and to Louise for the photos.

Spinning Gum Conservation Area (SGCA) is named for spinning gum (*Eucalyptus perriniana*). It is a rare species in Tasmania, known from only three sites, including this eponymous reserve.



I had never been there and I doubt if many people visit it because it is not terribly inviting or accessible. Its main purpose is the protection of the spinning gum.

It is just south of Tunnack and is accessed via Eldon Rd. which runs through the middle of it.

The part which we visited is pretty much a swamp, thickly covered in

*Leptospermum lanigerum* with small eucalyptus trees dotted throughout.

The spinning gum is so-named because the juvenile leaves occur in opposite pairs which join across the stem and often become detached from it. The pair of leaves are then free to spin like a propellor with the stem as the axis.

It was here that we rendez-vous'd with Bruce and Sandra Champion who had agreed to guide us through this area which they know well. After a short stop to look closely at this rare gum tree we followed the Champions a few kilometres further south to Gravelly Ridge Conservation Area.

This reserve is best known for its population of the rare, endemic *Acacia pataczeckii*, (wallys wattle). Bruce wanted to photograph this species in the wild for his website.

This reserve is very different to SGCA, being very dry, rocky and sparsely vegetated. At the parking area we noticed a beautiful little *Acacia*, up to about 1m high, with small dark green leaves and very floriferous. There was some discussion as to its identity, which was only resolved when I keyed it out after I got home. It was a small version of





*Acacia leprosa* var. *graveolens* or varnished wattle. I think it would be a very suitable plant for propagation at our nursery and will try to get some seed.



Bruce led us on an easy walk of a couple of kilometres, mainly along old logging tracks, to the location of the wallys wattle which grows in a fairly narrow band about 100m long and 50m wide on a fairly steep rocky slope covered in loose gravel. This tiny population, discovered in 2011, is about 100 km from the other populations which are all near Fingal.

Wallys wattle is a small shrub to about 1m high which rarely produces seed and is renowned for its propensity to sucker.

It often has reddish-green branches when exposed to direct sun, and the flattened phyllodes (leaf stalks) are an attractive grey-green to bluish-glaucous colour.

(Photo: Bruce Champion)

We missed the late winter flowering.



## Monday, 11 September, Herbarium Treasures

Report: Louise Skabo



Tasmania has a remarkable herbarium as part of TMAG. It is built into the hill at U Tas Hobart campus where the specimens can be kept within a cool temperature range. It could be even better if a disputed botanical collection by Ronald Campbell Gunn was returned from NSW!

Northern Group and one Hobart Group member, were made to feel very welcome by the botanist, Zoe. They generously

gave us nearly a whole morning of their precious time plus prior preparation time in searching out a fascinating selection of plants from the earliest Tasmanian collectors to recent new discoveries in Tasmanian botany.



The tour started in a large workroom with Miguel explaining the procedures for preparing and cataloguing new specimens. New material is cleaned, sorted, labelled (log data is attached to each), dried (silica gel helping to retain DNA, texture and colour better), mounted and given a TMAG registration number. Duplicate sets are often sent to other Herbariums in Australia and overseas.

The Herbarium's botanists need to use their taxonomic expertise with identification and in recognising variations within a species. This room is also open to the public for access to duplicate sets of Herbarium species that amateur botanists can use to assist with identification. Volunteers help here and it was lovely to see HGp Life Member, Christine Howells, (below centre) volunteering by artistically mounting the dried specimens.

Just prior to entering the underground storage of Tasmania's Herbarium, Miguel informed us that in order to safeguard this precious collection, in case of a fire, the thick steel doors would automatically close and we had 30 seconds to exit before an oxygen-sapping substance would fill the chamber.



I stayed as close as possible to the door!

We all had a marvellous, educational and inspirational time with Miguel and could have stayed all day listening to his stories on the history, exploration and discoveries behind the selected specimens.

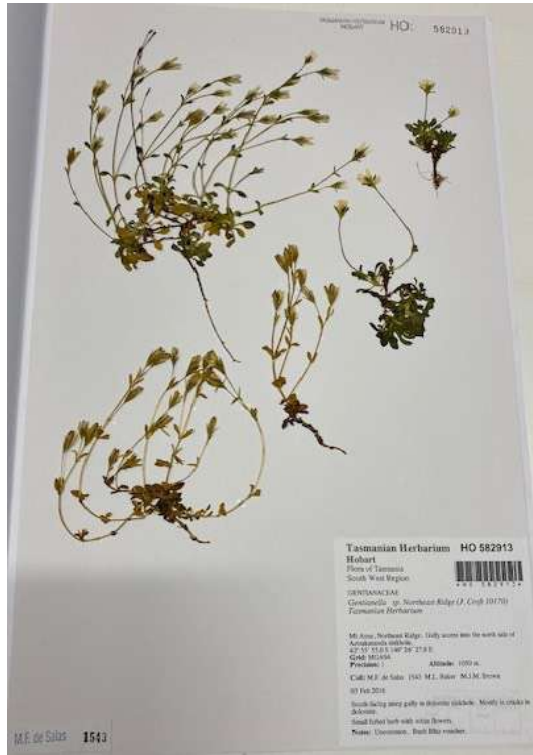


We were shown a sample of David Nelson's collections from Captain Cook's third voyage in 1777-78, from Labillardiere in 1792 and Robert Brown in 1802 and more. For example left is a fern from Gunn's collection. At right is a N.Z. specimen from Banks and Solander. Centre is a Hooker specimen.





They were so well preserved Miguel said they could still be used for ID. We learnt about holotypes, isotypes and lectotypes. We later admired the specimens from Gunn and Rodway (including his specimen of *Eucalyptus perriniana*-spinning gum 1894 (below left). Finally we saw the continuing discoveries in the present day. There were the new *Viola* species collected by Miguel on the serpentine rock of Tasmania's west coast and his work differentiating the characteristics of the *Gentianella* species.



Following the excellent Herbarium visit members drove to a property near Kettering. Peter and Robyn Tuft, the owners and members, live off-grid on a large block with bushland and a native garden of around one acre. Peter and Robin provided a warm welcome and kindly shared their dining table for lunch in a beautiful solar warmed living area. There is a full writeup of this wonderful property in the Hobart Group newsletter.







Closer view of the garden and members enjoying the experience.

(Thank you, Louise for this report.)

★ On Tuesday 12, some members visited Hawthorn and Boronia Hill Reserves - smallish, beautiful bushland blocks at Kingston.

These two small reserves contain a surprisingly diverse flora including several threatened species.



< *Boronia pilosa*

Two former NG members, Prue Wright and Margaret James who both now live in Kingston, have formed a friends group to look after the reserve with the blessing of the local council.

Prue, who is now a very active member of the HG, and Margaret showed us around the reserves and

pointed out the highlights.

Despite being early in the flowering season there was quite a lot of colour to be seen, with a couple of hibbertias in full flower and several leucopogon species.

Much of Hawthorn Reserve is normally quite wet and swampy as evidenced by the presence of numerous species which thrive in these conditions.



However, in September the reserve was very dry, despite which these swamp-loving species were looking quite healthy.

Some of the plants which were of greatest interest to me were sedges which I had not seen before, including *Chordifex monocephalus* and *Lepidosperma tortuosum*, (at right) not colourful but seen only in the south of the state.





*Epacris laguinosa*



*Dillwynia sp.*



*Acacia myrtifolia*



It was very pleasing to see that the Kingborough Council values these small reserves as evidenced by a number of well-constructed interpretive signs on the flora and natural values of the area. Several of these signs featured photos taken by Hans and Annie Wapstra the parents of our annual speaker Mark Wapstra.



*Indigofera australis*

After our visit to Hawthorn Reserve we drove a few hundred metres to Prue's house where we ate our lunch on her recently constructed deck.

To round off the excursion we visited the nearby Boronia Hill Reserve, another orchid hotspot - although it was too early in the season for most orchids to be in flower.

It was very nice to catch up with Prue and Margaret and to see that they retain their enthusiasm for native plants and the environment!  
(Thanks to Roy for this report on the Kingston Reserves.)

**Tuesday 19 September General Meeting**



There were 42 members and 6 apologies at the September meeting which opened promptly at 7 pm. Routine matters of correspondence plus the minutes were covered. Roy P. noted

that a committee had not been formed to follow up on the Membership Recognition Certificates so this matter has lapsed. There followed a number of quick reports e.g. Sharon spoke of the first of several successful garden visits which provided opportunities for members to tour suburban gardens to see native plants on display. Roy S. gave a report on the excellent excursion to the Herbarium, the Tufts' off-grid property at Kettering. There was an update on the Windsor Park signage, a reminder of the State Get-together, the spring plant sale, the next Horticultural Society display and the Mt Cameron field trip where David W. promised members a viewing of a fire orchid. Rosemary V. and Daphne shared flowers from their gardens, including a number of acacias. The 30 minute meeting concluded with Roy thanking Bruce once more for his setting up of the hall before each meeting.



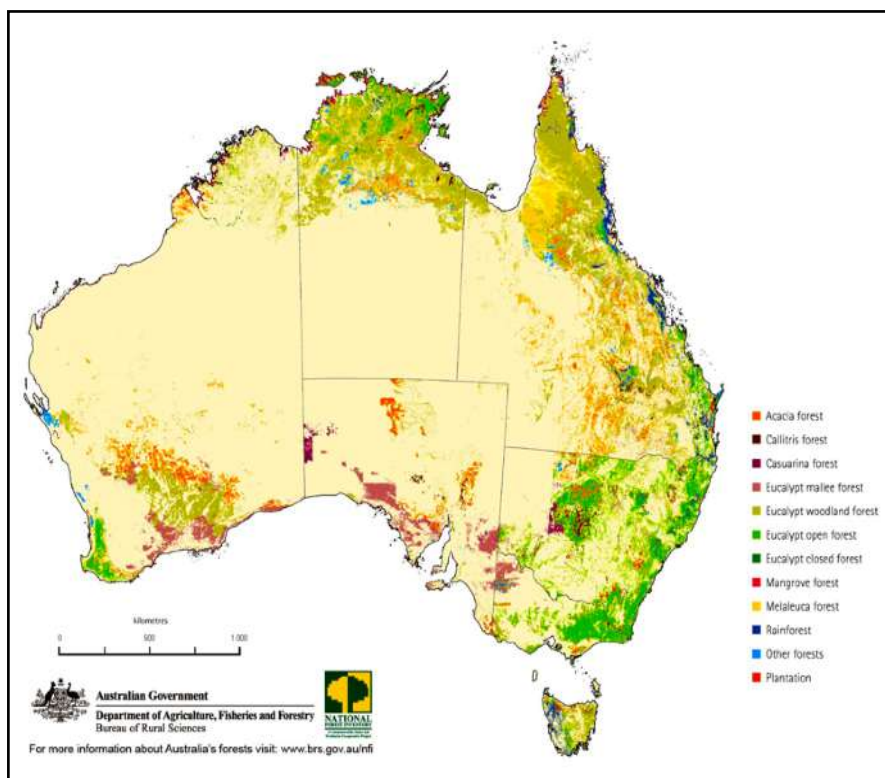




Speakers: Rod Griffin and Chris Harwood, “Some Things You May Not Know About Australian Acacias”

For many people, I suspect that *Eucalyptus* as a genus is much better known than that of the *Acacia* genus. Individual species are familiar but it appears there is not the overall scope of knowledge of this genus as there is for the *Eucalyptus* genus. Yet as Rod Griffiths says in his presentation: “Something you might not know about acacias”, it is the largest genus of vascular plants in Australia. It is culturally significant; a symbolic icon, appearing on the Australian coat arms, on a \$150 coin. A stylised acacia flower forms the basis for the OAM medal, and *Acacia pycnantha* is Australia’s national flower emblem.

The *Acacia* genus has a wide distribution and unlike the eucalypts which crowd the coastline acacias are considered to have evolved in a more tropical environment, radiated south and then into the arid centre.



Looking at the map:

around the margin it is dominated by eucalyptus forests but as you move to more arid zones it is acacia woodlands that take over.

Acacias grow everywhere with the many species having varied forms.

Of the 1,000 species about a third grow to five metres or more. These are the trees that produce a useful amount of woody biomass and as such are used in industries.



Some diverse examples that Rod listed are *Acacia colie* (left), found in W.A., N.T. and QLD.

*A. mangium* (right), a tree form species, found edging tropical rainforest also in New Guinea, Indonesia.

In S.E. Australia there is *A. dealbata*, and in the centre, Uluru National Park has 27 species.



By about 2011 it was clear that acacias in Africa and Australia were clearly different with taxonomists noting distinct differences. The taxonomic rules state that the genus ‘place of origin’ retains the original name. Unfortunately for Australia, Africa had the type specimen but after much debate, Australia was eventually allowed to retain the acacia name.

The *Acacia* genus has 7 sub-genera differentiated mainly on the venation of the phyllodes and the inflorescent structure. Note below sub-genera list (post 2011):



*Juliflorae* has 235 species which have multi veined phyllodes and inflorescences in spikes. There are 5 in Tasmania.  
*Plurinerves* has 212 species which also have multi veined phyllodes but globose flower-heads. There is 1 in Tasmania.  
*Phyllodineae* has 408 species which have a single main vein on each face of the phyllode. There are 12 in Tasmania.  
*Botrycephalae* has 42 with no phyllodes, retaining the juvenile characteristic of having pinnate leaves. 3 in Tasmania.  
*Alatae* has 21. The phyllodes are decurrent or absent. There are none in Tasmania.  
*Pulchella* has 27. Phyllodes are bipinnate found in W.A. There are none in Tasmania.  
*Lycopodiifoliae* has 17. Phyllodes are in whorls. There are none in Tasmania.

Most Tasmanian acacias are in the *Phyllodineae* sub-genus. Exceptions are *Acacia dealbata*, *A. mearnsii*, *A. terminalis* that belong in the *Botrycephalae* sub-genus and *A. melanoxylon* which is the only Tasmanian species in the *Plurinerves* sub-genus. Of the four species endemic to Tasmania: *A. axillaris*, *A. derwentiana*, *A. riceana*. belong in the *Juliflorae* sub-genus but *A. pataczekii* is in the *Phyllodineae* sub-genus. All of the remaining 17 Tasmanian acacias also grow on the mainland so are not endemic.

Acacias have been spread around the world and today are used in a wide range of products such as wood production for pulpwood or solid wood products.

However, there are many more uses - a diverse range from tanning leather or supplementing feed stock to extracts being used in French perfume. Acacia use continues to surprise..

Harvesting *A.mearnsii* bark (SA Forestry 2003) >



*A. dealbata* was introduced to the south of France over 200 years ago. Now 300-400kg/yr of floral extract is used in perfume.



Ground wattle seed, extract and soap



*A. longifolia* seed orchard



Fragonard ..Acacia perfume promotion

Acacias also provide fuel for rural parts of developing countries. Seeds and foliage can be used by humans and animals. They are nitrogen fixers so they are used for soil improvement or as a first step in restoring vegetation. Their biomass means they have the potential for energy generation. Therefore this genus is of significant economic importance throughout the world.



Next Rod described the reproduction process, providing lesser known detailed information on Acacia reproduction.

Some acacias are able to reproduce by suckering e.g. *A.pataczekii* and *A dealbata* have this characteristic.

< This ring of suckers is from roots of a 20 year old seedling, *A.dealbata*, at Knocklofty Res.

However, Rod noted sexual reproduction is required to maintain population diversity and to colonise new sites, so sexual reproduction is more important and the focus of his presentation.





Most of the species flower regularly and prolifically. With rare exceptions, all have bright yellow or cream flowers - an intriguing detail considering the range of species and their worldwide distribution.

When looking at pollination or reproductive success in terms of seeds per flower, the acacias are extremely inefficient. Most of the mass of flowers that cover a tree will not set pods even if they are all pollinated. This is because the plant doesn't have the resources to produce a corresponding amount of seed.

About 5% of flower heads will set a pod: in fact just 1% or less will give a pod. However, because these trees

have lots of flowers they don't need a highly efficient pod-set. Only a small success rate is needed from such an enormous mass of flowers. This is especially so when they are perennial plants putting seed into the soil. Just one of the seeds produced from that plant over its lifetime needs to successfully germinate and grow to replace and maintain the population. Additionally, the acacia seedbank is also massive and long-lived in the ground.

^ Rod said an attempted calculation of the flowers on the above tree (done with some very deep breaths and a large margin of error) concluded there were probably over 30 million flowers on the tree in that season.

By December in 2020, it developed 220,000 pods with 0.7% of heads setting a pod. This is within normal range for acacias. >

Even with many male only heads, there would have been 100,000 seeds added to the seedbank every year for many years.



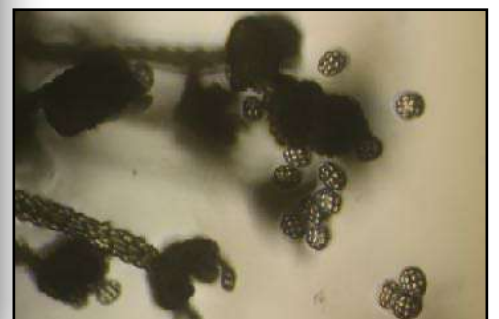
Racemes of flower heads of *Acacia dealbata*

Each of the globose flower heads has about 20 + individual flowers.



Look closely to see the styles jutting out above the filaments of the stamens. A lot are male. <

The pollen is not dispersed as individual grains but as polyads with 16 pollen grains stuck together in a clump. ↓





Most species are self incompatible and need to be cross pollinated. Rod suggested that when the pollen is exposed it is taken away by insects, birds or the wind.

Research, based on summer-flowering mainland species, suggest native bees and beetles are the main pollinators of acacias but that can only be part of the story because in Tasmania, Rod affirmed many acacias flower in cold and windy conditions with their flowering finished before native bees and beetles surface in the warmer weather. European bees are out but they have not co-adapted with these plants.

Thirteen species of bird have been observed in tree crowns. Thornbills, silver eyes, and also rosellas feed in and around blossoms. Pollen has been recovered from feathers of these species. >



It is likely also that wind is a pollinator. It disperses whole inflorescences as well as polyads.

<

A wind tunnel experiment demonstrated that pollen can be blown off flowers at 10km/hr and above. Sticky traps confirmed this pollen dispersion by wind gusts.

< Sampling wind dispersed pollen.

### So the big question: What really is effecting the pollination?

Rod agreed that it is not typical of floral biology to have specialised wind pollinated species. It is likely that birds and honey bees play a part but not enough to pollinate the millions of flowers. By field trapping of pollen blown off at over 10km/hr near 22 species, the generality of wind dispersion has been confirmed.

At present, there is a definitive experiment in progress aimed to exclude the birds and bees, harvest the pods and use genetic analysis to demonstrate that seeds have been outcrossed. Rod concludes: 'Watch this space!'

★ For more information: Potential pollen vectors for *A. dealbata*... what we know so far.....(see Griffin *et al* Proc. R. Soc. Tas 2020)

★ **Chris Harwood**, the second speaker, In his presentation: "Growing and Using Tropical Acacias in S.E. Asia" described a flourishing industry that covered around 4 million hectares across three countries.

He quickly opened eyes to an extensive acacia plantation industry, mainly in Vietnam, but also Indonesia and Malaysia where the combined annual wood harvest is more than 50 million cubic metres i.e. about twice the annual wood harvest from all of Australia's plantations!

Another way of viewing the size is that it is  $\frac{2}{3}$  the surface area of Tasmania. As he said, '...a lot of plantation!'

The industry started in 1980s and 1990s. In Vietnam it enabled farmers to rise from the poverty of the war years and also revegetate damaged areas. In Indonesia it started with paper-making, by first using native forest until forced to stop by international pressure. They converted grasslands and some of the forested areas into fast growing acacia plantations. These have since decreased because although acacias grow very well in the tropical plantations, in colder parts they do not. In Indonesia and similarly Malaysia, most of the plantations are grown by large or medium sized companies with few farmers. However in Vietnam it is farmers who grow about two thirds of the plantations, producing two thirds of the wood.

In Australia people say we should use native trees in our plantations but it would need ten times the area of native forest to get enough wood. Also, noted Chris: fast growing acacias or eucalypts have not been found, despite trials.





Interestingly the wood is grown on small individual farms with maybe 1-2 hectares of plantation. This is possible because of the quick growing species used.



Above left: Woodchip pile ready for Japan, China or Korea. Right: Acacia harvesting in Vietnam.

Surprisingly, it is mostly three acacia species used in these plantations. They are...



< *Acacia mangium*

*A. auriculiformis* >

*A. crassicarpa*



All are native to northern Australia and southern New Guinea.



Acacia products differ from country to country e.g. pulpwood is used for making cardboard in Indonesia and Malaysia plus saw log production occurs in Malaysia. In Vietnam pulpwood is grown as well, but they also have a big industry making furniture and other wood products out of sawn logs.

The time from planting to cutting and sending to the factory is 5-8 years. This contrasts with Australia where it is 25 - 30 years for pine plantations and 12 years for eucalypts! The annual wood harvest from Asia's acacia plantations is at least 50 million cubic metres which is about twice the annual wood harvest from all of Australia's plantations.

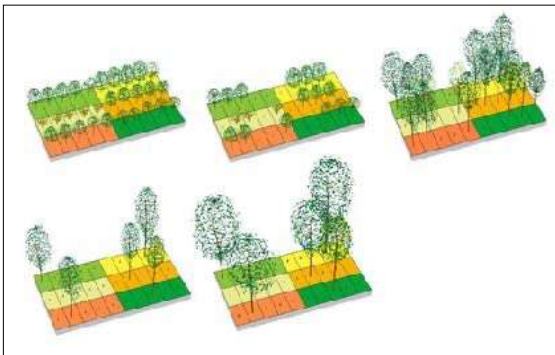
### [Growing acacias in Vietnam](#)

For 20 years Chris has been involved in growing acacias in central Vietnam - part of an experiment to ensure that they could maintain rotations without loss of productivity. They found with good management practices it can be done. For successful management it was crucial to look after the soil. For example the slash must be left on the site; there must be no burning or ploughing; only minimal vehicle traffic; and moderate weed control.

He said it is a battle to get hundreds of thousands of small growers to follow good practice to protect their sites and avoid degrading the highly erodible tropical soils. Not to do so reduces wood production and the people become poorer with less work.

Next he described the efforts to breed better acacias that first began with collecting seed from forests in e.g. New Guinea or Qld. As he said, 'You could plant these seeds but it was a lot of work, and not enough seed would be produced for the thousands of hectares being planted every year'. So they experimented to find a genetically improved seed.





The seed orchard began with a progeny trial of 100 + varieties.

The process of breeding for improved acacias was simple with the poorer specimens being thinned out; the rest left to flower; and the seed collected.

<

Then further trials were conducted on three different sites which all showed that the best seeds from the seed orchard were producing

twice as much wood as the local seed source that they were using before they started the genetically improved seed breeding experiment.

A convincing result showing that breeding does work.

The Vietnamese 'got very clever' with 'Acacia hybrid' which is a hybrid between *A. magnium* x *A.auriculiformis*. Today there are over one million hectares of *Acacia* hybrid planted in Vietnam. However, all the industry is based on about ten clones of *Acacia* hybrid. Fortunately more clones are now being developed because the lack of genetic diversity is dangerous. Chris noted that the first hybrids were naturals, identified in parent-species plantations and cloned. Some individual hybrid clones have been in use for 30 years.

Controlled pollination has also been used to produce hybrids but the method is too meticulous with few people having the skills. For *Acacia* hybrid breeding the stages are easier.

### Acacia Hybrid Cloning

First, seed thought to be hybrid seed is collected, planted out in trials and then checked to see which ones are hybrids as they will have an intermediate morphology between *A. magnium* and *A. auriculiformis*. They also use DNA markers to check.

The good specimens go into tissue culture. >



< This is a clonal hedge garden at a Vietnam forest nursery where each day they collect new shoots which are propagated.

The rooted cuttings are shown in a low cost forest nursery. >



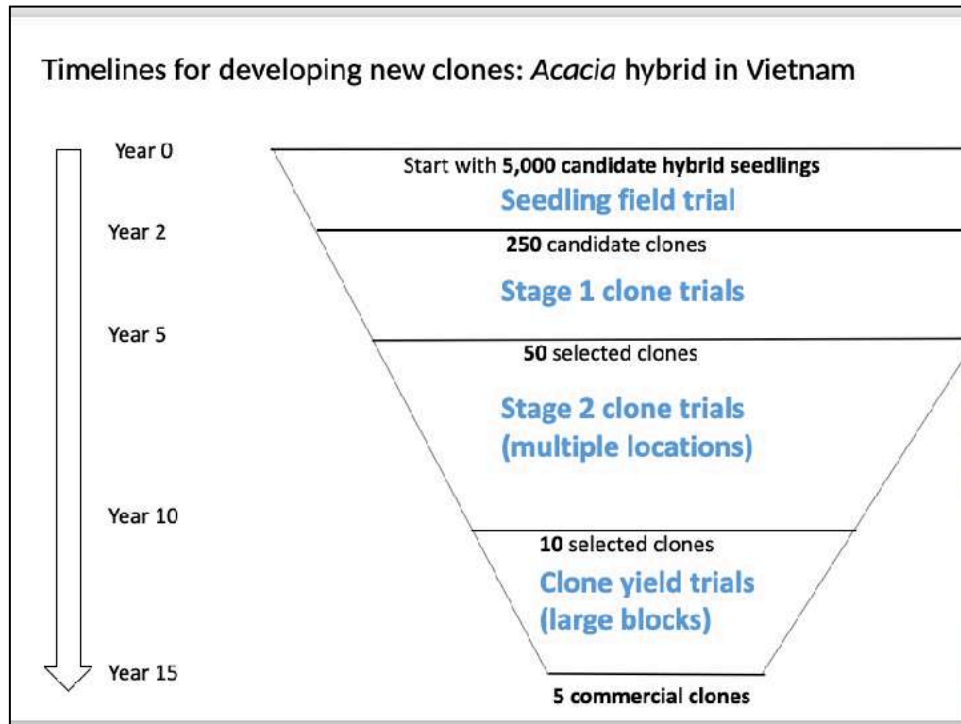
The young trees are pruned to get a single stem and planted in a big plot. At left there is an obvious boundary between a more successful big clone and a lesser sized clone.

It is clear that productivity is lifted by improved breeding.



Nevertheless, it is a long process because it takes about 15 years to develop a commercial clone.

This diagram shows the years necessary to screen 5000 hybrid seedlings to come up with 5 good clones. >



< One of the diverse rural landscapes where eucalypts are growing on the hills with *Acacia mangium* in the centre - all part of a beautiful landscape, bringing prosperity to these rural areas.

But there are concerns for the future of the industry.

Pests and diseases threaten. *Ceratocystis* (stem wilt), a bad fungal disease has destroyed *Acacia mangium* plantations in Indonesia and Malaysia where, over a decade, massive steps have been made to replace the *Acacia* with *Eucalyptus pellita*. It is now essential to have an emphasis on selecting and breeding for disease and pest resistance.

Another concern Chris mentioned is monoculture plantations e.g. *A. crassicaarpa* on peatlands in Indonesia which while presently productive are a concern. Typhoons present a threat, as does global warming. On a predictive diagram Chris showed the dwindling planting range for *A. auriculiformis* in Vietnam. This acacia had almost disappeared by 2080. He noted that it will be difficult to breed more adaptable trees because they already come from some of the hottest parts of the world.

While the industry has risen, flourished, managed challenges along the way, problems for plantations will continue to arise. His conclusion for continued success in Vietnam is for all the small growers to work together, to follow the very best practices, to use the best genetic material. In addition scientists need to develop breeds that can cope with the challenges that arise in the tropical environments.

### ★ Wednesday, 20 September, Acacias in Windsor Park Gardens

Seventeen members were at Windsor Park by 8.30. The sky was clear although the sun's warmth was not sufficiently competitive with the cold wind. Soon members were being shown *A. mearnsii* glands which are on the phyllode between the pinnae whereas on *A. dealbata* the glands are at the junction of the pinnae.

More details followed on the genetics of *A. mearnsii*, including the point that this diploid plant is more fertile than triploid and tetraploid plants. Many wattles also reproduce vegetatively and members were able to see direct evidence as Rod spoke, with seedlings growing where they stood.







The group next moved to an imposing *Acacia melanoxylon* which was in peak flower. Further discussion on the morphology and genetic features ensued.

Close up of *A. melanoxylon* flowers. >



Alongside the creek members were able to see 3 of the 4 endemic acacias: *A. axillaris*, *A. riceana* and *A. derwentiana* plus other native Tasmanian species: *A. mucronata*, *A. stricta*, *A. terminalis* and *A. longifolia* subsp. *sophorae*.



*A. axillaris*



*A. riceana*



*A. derwentiana*

Rod explained that this *A. longifolia* subsp. *sophorae* (below left) differs from the Sydney coast wattle which has longer, narrower phyllodes, straighter pods and is considered a weed in the bush.



Phyllodes showing distinguishing features i.e veins, shapes tips - >  
*A. melanoxylon*,  
*A. mucronata*,  
*A. stricta*.



< Distinguishing gland on *A. terminalis*.

*A. genistifolia*, has yellow balls on angular stems. >



Far left: *A. melanoxylon* has multi veined broad phyllodes.

< *A. stricta* has long narrow phyllodes with one main vein.

*A. terminalis* has no phyllodes - one of 3 Tasmanian acacias to have pinnate leaves as do *A. dealbata* and *A. mearnsii*. >

A most interesting amble with members learning much thanks to our expert leaders, Rod and Chris.





Tuesday, 26 September, Working Bee, Tasmanian Native Garden, Caswell St.

Suzanne called for a large turnout from members for the spring working bee. It was peak flowering time and did not disappoint the industrious members who spent two hours on a sunny morning, enjoying a glorious range of Tasmanian native plants.



^ These are just a few of the magnificent plants on show: *Nematolepis* subsp. *retusa*, blunt satinwood; *Pittosporum bicolor*, cheesewood; and *Tasmannia lanceolata*, mountain pepper.

While it could be said that some members might see Peter's muffins as the highlight of the working bee there is a possibility that this spring display could well rival his efforts!

Below left: *Euryomyrtus ramosissima*, *Pimelea nivea*, bushman's bootlace. Right: numerous plants: *Pomaderris elliptica*, dogwood; *Clematis aristata* and *Olearia phlogopappa* (pink).





Friday, 29 September, Excursion to Mt. Cameron Regional Reserve

'Hi members, the weather for our excursion this Friday looks to be perfect for a day of looking at wildflowers. If you have not seen our magnificent fire orchids, this is your chance. .... David Waters, did a recce a week ago and says the flowers are magnificent, the walking is easy... We will carry our lunches and picnic in the bush.' Roy S. This was enough enticement for several cars to arrive in Bridport at 9 o'clock. Shortly after, around 18 members followed David Waters in the lead car to the Mt. Cameron walking track - about a 40 minutes drive.



The walk began with wet sclerophyll surrounds. where this fern drew discussion as to its species.

As we began the steady climb many shades of yellow kept cameras busy: creamy white *Kunzea ambigua*; gold-centred *Olearia lirata*; true yellow of acacias such as *Acacia verticillata* and the paler *A. mucronata* (below right).



However it was *Pomaderris elliptica* that outshone all others - its golden hues the richest on this sunny morning.



Above left: *Pomaderris elliptica*, *Olearia lirata* and right: *Acacia mucronata*.

Before long members were moving through dry sclerophyll vegetation with several eye-catching small trees and shrubs. Small herbs were less obvious e.g. *Thysanotus patersonii*, *Dampiera stricta*, *Viola hederaceae*. (See David Waters' photos on APSTAS Facebook, posted October 2nd.)

*Spyridium parvifolium*



*Comesperma volubile*







Below: *Pultenaea juniperina*,  
Centre: *Dillwynia sericea*  
Right: *Pultenaea daphnoides*



WOW!

Peak flowering of  
this magnificent  
yellow rock orchid.



*Dockrillia striolata*





It was approx. 500m high at this spot, and the turning point, because after seeing this amazing collection of perfumed orchids festooning the boulders members left feeling most satisfied.





Daphne delighting in the orchids. ^

Although *Dockrillia striolata* captured attention by its sheer expanse, another impressive orchid and highlight was *Pyrorchis nigricans*, fire orchid.

<

*Thelymitra rubra*, pink sun orchid ↓



*Pterostylis nutans*, nodding greenhood orchid

*Acanthus caudata*, Mayfly orchid





Thank you, David for your 'day of discovery.'



## Saturday, 30 September, State Council Meeting

Several members journeyed to Ross for a special luncheon which was part of the State Council general meeting. The special occasion was to present Margaret Killen with a Life Membership for her many years of consistent endeavour for APST Inc. See the December *Eucryphia* for details of her dedication and achievements for our Society. Louise presented Margaret with her badge watched by her family, all at Ross to surprise her on the day. Rosemary also spoke of Margaret's influence and presented the beautiful flowers.



Congratulations, Margaret!





## Plant that Pleases

It was a thrill for the garden managers to see *Richea dracophylla* in flower this spring - such a healthy spike in the Tasmanian Native Garden.

