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An unusual pink form of *Hakea dactyloides*, Photo: Brian Walters. From the ANSPA website <u>https://anpsa.org.au/plant\_profiles/hakea-dactyloides/</u>

## **EUCRYPHIA**

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#### From your President

President Louise Skabo



Congratulations to our newest Life Member, Margaret Killen. Margaret has been a member for 36 years and extremely active and involved for over 20 years. A surprise lunch was held for the Life Membership presentation in Ross and it was lovely that many members of Margaret's immediate family could attend as well as members from all three Groups. You can read her Citation in this journal.

Congratulations also to the Hobart Group for a most enjoyable extended weekend of good company and wonderful walks on the spectacular Tasman Peninsula. Despite the dry conditions this spring, we saw a huge diversity of flowering plants and members from the Northern and North West Groups also found some of the flora quite intriguing in its variation from similar species in the north of the state. Having knowledgeable southern members to enlighten us about these and other species which are endemic to their district, is one of the many benefits derived from going to these annual Members' Get-togethers.

Our APST Inc Conservation Officer has been working hard on developing a 'Conservation and Biodiversity Strategy' which, after further input from Council and Group executives, will be made available for all members to provide comment via a *Member's consultation Draft Strategy*. The Northern Group has celebrated its first year preserving a local reserve by holding a community flower walk. There will be a flora walk in another local reserve in late November to ascertain community interest in starting a second APST Friends' group. Each District Group has these precious little urban or peri-urban reserves which are in dire need of care so as not to be over-run with weeds and other threats to their biodiversity.

I wish to highlight our Society's Group Newsletters as very worthwhile reading to learn more about Australia's flora and all the varied and interesting activities in which our members are involved. Go to 'Members Only' on our website, then 'Group Newsletters' and be certain you 'Bookmark' the APST website for ease of access. The Northern Group news is to be on the public section of the website as it has been considered an excellent marketing tool for the Group for over 20 years.

The next opportunity to meet fellow members from all over Tasmania will be at the Society AGM which, on Saturday, 23<sup>rd</sup> March 2024, will be held in Hobart at the Kingston Primary School at 11a.m. You could car-pool. A light lunch will be provided. This is your opportunity to raise any matters your think would improve our Society or any concerns you might harbour. We would love you to attend and make this a time for members to draw together.

After lunch, the new and returning members of our 2024-25 APST Council will confer and you are welcome to stay and observe. If you are interested in becoming a Group Councillor, or any other APST Council position, please ask your Group Secretary for a nomination form. Appointed positions do not have to attend Council meetings but are interesting jobs which make important but not too time-consuming contributions to the Society. Contact <u>apstsec@gmail.com</u> for further information.

Wishing all members a safe and joyful Christmas season. ⊙



# **Report from Council**

Vice President Judith Blayden



Council met at Ross on 30<sup>th</sup> September and as you can see from this report, covered a wide range of issues ensuring the smooth running of APST.

Communication via Google Drive has progressed. All groups now have a Google Drive. Newsletters and minutes should be on the drive and sent to other Group Secretaries. In order to respect the privacy of individuals, newsletters on the website should have personal details removed.

There is now an up-to-date digital version of the Grow Local Brochure. The printers, Monotone, will be requested to provide a link for our website under 'Publications'. It is also intended to contact Councils to see if they will buy copies from Monotone for distribution.

History of APST: A group of members has been working on bringing the history of our organisation up to date. Once it is current it should be updated annually. If anyone would like to participate in this project, please get in touch with me.

Tasmanian Dicot Key Project: The Tasmanian Dicot Key website is a useful resource for anyone studying Tasmanian flora, but it needs updating and maintaining. It was decided to establish a subcommittee to undertake this project and that Roy Skabo be asked to convene the group.

Advancing Eucryphia: There was discussion about bolstering interest in the publication, which is distributed Australia-wide to other APS groups. It is suggested that Groups and their newsletter editors consider at least once a year publishing an outstanding Guest Speaker's presentation in Eucryphia, with only a brief reference to the presentation in their Newsletter.

Landcare: In order to complete administrative tasks a Landcare Liaison Officer is needed, so it was moved that Dale Luck be appointed as Landcare Liaison Officer.

The Treasurer has been investigating insurance coverage for members and guests participating in excursions. He reported that the Landcare Insurance is comprehensive and covers members, but cover for guests is being further investigated.

The Society Treasurer is re-assessing the structure of Council's financial reports due to changes resulting from the relatively new online banking system. He is also fine-tuning the costing of APJ and Memberspace. Online payments have increased. $\odot$ 

#### **Welcome to New Members**

It is with pleasure that we welcome the following new members to APST:

Eliza Sherrard, Caroline & Don McKenzie, Ellen Sorensen, Jonathan Dehnert, Camille Mewett, Sara Naylor, Fiona and Malcom Tilsey, Helen Patronis, Jane Pittaway, Jo Hart, Alison McCrindle, Alex Hajkowicz, Ann Popelier, Peter Fitzpatrick, Julie Rogers-Smith, Roslyn Bufton, Kass Jones, David and Teri Rundle, Renae Boyd, Fran Kneeves Emma Williams, Grant Scurr, Craig Boyer, Jacob and Abigail Zhang.

# **Study Group Highlights**



Study Group Liaison

Australian Plants For Containers Study Group Newsletter No 40, Oct 2023

Leaders: Ros and Ben Walcott

The Walcotts took on the task of revitalising this study group a couple of years ago. They have done an excellent job in creating an informative newsletter. Its success relies, however, on contributions from members. The newsletter is free and can be seen on the ANPSA website.

They are requesting contributions, whether of successful or less successful experiences. All serve as learning experiences.

The Walcott's Canberra garden has benefited from the reliable rainfall of the last three years during La Niña. Like the rest of us they are now facing a much drier period of El Niño. They write that Eremophilas, however, have been miserable during the wet period. One exception to this is the magnificient *Pimelea physodes*, the Qualup bell. This container grown plant blooms reliably for several months every winter.

Garden Design Study Group, Newsletter No 124, Nov 2023

Leader and newsletter editor : Lawrie Smith

Theme for this issue: Microclimate

A series of interesting articles from SG members describing their garden design development over time are included. Specific design aspects are discussed.

Those of us who attended the ANPSA conference in Canberra, and visited the National Arboretum, would have seen the location of the Terra Australis garden, officially opened in 2019. The garden was designed by Lawrie Smith. The newsletter includes a description of the *Terra Australis* garden, as it develops into maturity.

As mentioned in the previous Euchryphia report, the excellent, easy to navigate ANPSA website anpsa.org.au has the Study Group newsletters and also general information available for anyone to peruse. They contain a wealth of valuable and interesting information.



## Australian Plants Society Tasmania Inc. Annual General Meeting Agenda

Date: Saturday 23th March 2024

Time: **11:00 am** 

Place: Kingston Primary School

1	Welcome: Introductions; Reading of Objectives.	President
2	Apologies	Secretary
3	Review of actions from 2023 Annual General Meeting	President
4	Acceptance of minutes of 2023 Annual General Meeting	President
5	President's Annual Report	President
6	Treasurer's Report including Financial Statements	Treasurer
7	Auditor's report	Treasurer
8	<b>Opportunity</b> for questions	President
9	Appointment of the Auditor	President
10	Election of Council Officers:	
	President; Vice President; Secretary; Treasurer; Public Officer; Group O	Councillors
11	Next Meeting	Secretary
12	Meeting close	President

# Nomination forms for any of the vacant positions may be obtained from your group secretary.

At the meeting, members can:

- find out about APST and its operations and finances
- speak about any items on the agenda
- vote on any proposed resolutions
- appoint an auditor
- elect councillors

Also at the meeting, members will be asked to vote to:

- accept the minutes of the last annual general meeting
- ·accept the annual report
- • accept the auditor's report
  - accept the annual financial statements.

## Life Membership Awarded To Margaret Killen

Louis Skabo

Margaret Killen has been a member of the Australian Plants Society Tasmania for 36 years and over that period has given outstanding and meritorious service to the Society furthering its objectives both within the Society and the community.



President Louise Skabo pins on Margaret's Life Membership Badge

Margaret Killen joined the Australian Society for Growing Australian Plants (ASGAP) about 1987 when she and her family moved to Launceston. Her involvement in the Society has been ongoing, involved and innovative. Margaret has used her business experience and organisational skills to bring about considerable benefits for APST while holding executive and appointed positions for over 20 years.

A member of the Northern Group, Margaret became their Programme Officer in 1997 and again during 2003, Librarian (2003-06) and was President of the Northern Group for two years from 1998 to 2000.

In 1999, during the period that the Society was changing its name to *Australian Plants Society* in line with other Australian states, Margaret was enthusiastically engaged in State Council taking on various positions for ten years. From 1998 to 2003 Margaret was a Councillor; Vice President in 2000 and President of the Council from 2003 to March 2005. While on Council, Margaret saw the need for and coordinated the writing of the APST Council Handbook containing executive and appointed officer roles, policies and procedures. All Council office bearers could now access their job description in the Handbook. Margaret continued to serve on Council as Immediate Past President until March 2006 and was the ANPSA Delegate in 2007.

After retiring from Council in 2008 Margaret continued contributing to the Society, taking on the important role of Treasurer for the Northern Group for four years till March 2010.

After a break to concentrate on her employment career, Margaret became a Councillor again in 2015 and shortly afterwards, took on the demanding job as the Convenor of the ANPSA Biennial Conference in Tasmania. Margaret led a small, hard working committee of members and this was the major focus of her efforts for APST for over two years culminating in a most successful conference in Hobart in January 2018.

Margaret was elected State President again in 2017 and served until 2019 when she fulfilled the role of Immediate Past President for a further year.

Noticing the downward trend in APST membership numbers, Margaret saw the need for a revitalisation of the Society and a plan for its future growth. So, along with her other commitments in 2015, she motivated APST Council to set up a subcommittee to develop strategic plans. This became a long term responsibility for her as Coordinator of the Strategic Planning Group which consisted of representatives from all Groups, a professional consultant for a time and input from APST members via surveys. The 2018-2023 plan set a range of goals, many of which have been achieved especially with regard to Governance, Membership and Technology. Margaret devoted countless hours consulting with professional website developers plus self-education on computer systems to be able to help create the modern, user-friendly APST Website launched in October 2021. The SPG and Margaret also initiated the re-writing of the APST Inc Constitution (November 2019) and commencing the updating of the Handbook she had earlier instigated, to contemporary standards. She is at present coordinating the SPG to develop new 2023-28 goals to enable the Society to remain relevant into the future.

From 2019, Margaret has been the Society's Membership Officer overseeing the transformation of this role to the website, including the provision of on-line membership applications. Her vision that the Society would grow by setting strategic goals, including better communication, technology and membership procedures, has been validated with a steady increase in member numbers since 2018.



Above: Rosemary Verbeeten presents Margaret with a bouquet and congratulations. The award was made in Ross, and family (pictured below), friends and APST members joined in the celebration.





(Continued next page)

Margaret has been keen to promote APST to the wider community and to identify new opportunities for growth including the concept of 'Flora Tourism'. With this belief Margaret became President of Blooming Tasmania in 2020 and worked hard in difficult times to advocate its aims for all types of gardens including taking the opportunity to help publicise Australian native plant gardens.

Margaret has a passion for native plants and has been involved in many Group activities like the Tasmanian Native Garden in Mowbray, attending excursions to study native plants in the bush, attending propagation sessions at the NG Nursery, and giving Plant of the Month and other presentations. Margaret participates in APST Members' Get-togethers and attends the ANPSA national conferences.

Margaret is generous with her time and knowledge and is an excellent communicator helping her fellow members as well as encouraging and mentoring new and potential members. Her long association and outstanding contributions to APST make her a stalwart of the Society and one whose commitment and loyalty are well deserving of an APST Inc. Life Membership.

Dates researched by Rosemary Verbeeten, APST Life Member Written by Louise Skabo, President, APST Inc Comments from members.

#### Letter to the the Society from Margaret Killen:

Thank you all very much for honouring me with Life Membership of the Australian Plants Society Tasmania Inc. I know there are many members, silent and not so silent, who work hard in the interests of the Society and I am privileged to be recognised as being part of that group.

My thanks go to our President, Louise Skabo, Rosemary Verbeeten and the current Council for nominating and arranging the presentation and lunch and to all those who made the journey to Ross on the 30<sup>th</sup> September and everyone who sent messages. It was a complete surprise and wonderfully organised to have my family attend.

Warm regards Margaret Killen

# **Myrtle Wilt**

David Boyer, with considerable input from Tonia Cochran

When Tonia Cochran, owner and manager of Inala Jurassic Garden on Bruny Island joined the organisation Botanic Gardens Conservation International (BGCI), she never imagined this would lead to her being involved in organising a research exercise into the health of myrtle (*Nothofagus cunninghamii*) in Tasmania. Her first foray into the fascinating world of global plant conservation was a Global Genome Initiative for Gardens award to preserve global plant diversity in 2020 through BGCI, followed by a BGCI/ArbNet (Accreditation body for arboreta) grant in 2021 to work in collaboration with Bedgebury Pinetum UK to grow Mulanje Cedar (*Widdringtonia whytei*). When staff at Kew-Wakehurst (the lead institution of the Global Conservation Consortium for *Nothofagus*) contacted Tonia to ask for further details on her *Nothofagus* collection, one thing led to another and a collaboration to apply for another BGCI/ArbNet grant to survey myrtles on Bruny Island was born. Tonia attended the Global Botanic Gardens Conference in Melbourne in September 2022 where delegates included her contacts from Bedgebury and Kew-Wakehurst and they travelled down to Inala after the conference.

In December 2018, the Red List of Nothofagus was produced for the International Union for the Conservation of Nature (IUCN) as one of a series of Red Lists, being conservation assessments of the health of the world's biodiversity. There were 37 species of *Nothofagus* listed in the report, including all 3 Australian species (*N. gunnii* in Tasmania, *N. cunninghamii* in Tas and Victoria and *N. moorei* in northern NSW/south-eastern Queensland). In the Red List, both *N. cunninghamii* and *N. moorei* are classified as vulnerable, while *N. gunnii* is deemed to be not threatened. The other 34 species listed in the report grow in Indonesia, New Guinea, New Caledonia, New Zealand, Chile and Argentina, and of these, 3 are listed as critically endangered, 3 endangered and 3 as vulnerable. It is proposed that Red Lists be provided for all trees. *Nothofagus* was among the first families to be reviewed, because of its ecological and historic significance, having been around for a million years.



Nothofagus at Inala Jurassic Garden. From left *N fusca* (NZ); *N cunninghamii* (Vic & Tas); *N moorei* (NSW & Qld). (Continued next page) The reasons given for classifying *N* cunninghamii as vulnerable was because of threats from land clearing and harvesting, fire, myrtle wilt and climate change. Harvesting and fire were certainly significant contributors, but Tonia has little doubt that myrtle wilt was the principal justification for the classification.

Myrtle wilt was first noted in 1973 but has been traced back to the early 1940s using aerial photography. The fact that it was not recorded for many years indicates a likelihood that it was an endemic disease.

Following its identification as a fungal disease shortly after discovery, biologists from Forestry Tasmania and CSIRO carried out considerable research into the disease and its implications. This research culminated in a detailed thesis by Jill Packham in 1994. Similar research was also carried out in Victoria where myrtle wilt has also had an impact on their myrtle forests. Probably because of the thorough analysis prior to and in the preparation of the thesis, and a reduction in funding, in more recent years there has been a considerable reduction in research.

Tonia Cochran is a dedicated naturalist familiar with the vegetation on Bruny Island and the home of her treasured Gondwana Botanic Garden. She became aware of myrtle wilt and concerned about the health of the island's *N cunninghamii*, tracked down the research papers, and found that there was virtually no information on the impact of the disease on Bruny. Also, *Nothofagus*, because of their Gondwanan ethnicity, are an important family in her garden, and its health is of paramount importance to the garden's viability.

Following the discovery of myrtle wilt, there was considerable research to determine its cause and effect, partly because of the requirement for the Forestry Commission and later Forestry Tasmania, to determine the quantity of myrtle it could make available to the industry. Myrtle was then in considerable demand, particularly the special deep red timber which sometimes became available. Unfortunately, there is no ability to determine the colour of the wood without harvesting the tree.



Healthy Nothofagus cunninghamii spring foliage.

Very quickly it was determined that the culprit was a previously unknown fungus Chalara australis, which enters myrtle trees through wounds and chokes the flow of sap to the tree crown, killing the tree. This disease is not known to infect any other species, although some have died after having been injected by the pathogen. Then came the question of how it was transferred to other trees. It was initially thought that the mountain pinhole borer, <sup>1</sup>Platypus australis, was the guilty party, principally because of the frass or sawdust generated by the borer at the base of diseased trees. However, it was later determined that the borers moved into the trees once they were infected, as they prefer dead wood.

It became apparent that trees adjacent to recently constructed roads or forest operations were susceptible to the infection, and many of these were found to have been damaged in the works. Then, because it was considered that there was little likelihood of transfer through the air, it was determined that trees immediately adjacent became infected through root grafts, i.e., transfer of the disease through roots touching or in close proximity. Tonia and her team became aware of there being a myrtle wilt problem at Lees Plains which is not likely to have been transferred through root grafts, so other vectors cannot be ruled out.

Tonia and her team have now carried out the first data gathering exercises which it is hoped will provide some answers to her concerns. The project is being carried out in collaboration with Kew-Wakehurst and involves surveying all myrtles within three 200 x 20 metre transects on each side and the top of Mt Mangana. A road/walking track is used as the midline of each transect so it is only necessary to scramble 10m either side through the thick undergrowth. This exercise will be carried out a further 2 times over the next 12 months to determine whether there is any deterioration in the health of the trees and to form a baseline survey for a longer-term study of the myrtles on Bruny Island. This is also intended as a pilot project for other possible future surveys of N. cunninghamii throughout its range in Tasmania and Victoria.

In addition to the ground surveying, Tonia has also applied for permission to use a drone to do some aerial surveying of the myrtle canopy as she is confident she can pick up signs of dead and dying trees from the air. In addition to being a laboursaving survey technique for future and/or long-term surveys, it also minimises the risk of transporting fungal spores when ground surveying. Tonia is negotiating with the remote sensing department at UTAS to use their sophisticated drones. This work would need to be done after the eagle breeding season (July-Feb) to minimise the risk of collision of the drones with territorial breeding birds.

It was fortunate that flowering of some trees occurred shortly prior to the survey and that it was a mast year for myrtles (i.e. there was considerably more seed than there would have been in a normal year), so she took the opportunity to collect seed for James Wood from the Tasmanian Seed Conservation centre at RTBG who will store it and liaise with the Millennium Seedbank which is based at Kew-Wakehurst.

In addition, as another adjunct part of the study, leaf samples from 6 individual trees were taken from myrtles growing on each side of Mt Mangana and were sent to Sydney Botanic Gardens for genetic analysis together with some herbarium specimens as part of genome work they are doing on *Nothofaqus*. Hopefully, with collection of plant material from other sites across Tasmania, they will be able to determine whether the Bruny Island Nothofagus are genetically diverse.

Of the almost 400 myrtles included within the 3 survey areas, almost 20 were found to have died relatively recently as they still retained their dead leaves. This number was higher than expected. It was hoped that the cause of their demise could be determined, but unfortunately there appears to be no current capacity to achieve

this unless the signs are caught early while the tree is still alive. There is a faint possibility that these myrtles were infected by myrtle wilt and Tonia is closely monitoring those in close proximity to the dead trees for signs, and sincerely hope this is not the case.

It has been observed that myrtle wilt is a native disease, and that the death of a tree creates an opportunity for new seedlings to fill the gap, but is the death rate stable and will it be affected by climate change?



Collecting myrtle seeds.

The project has provided an example of what can be achieved by a dedicated community group with a worthy objective and limited funding. Tonia of Inala and Olivia of Kew-Wakehurst have the aim of setting up a pilot study for consistent data collection over a wider area than Bruny Island. Kew-Wakehurst's main concern is the future health of *N cunninghamii*, as they predict climate change to stress *Nothofagus* more than most other groups of plants.

It would be great if the project continued when the current data collection and assessment is completed in mid-2024.

In the event that you would be prepared to assist in the collection of data for an area other than Bruny Island, please contact Tonia on 03 6293 1217, or by email to <u>inalajurassicgarden@gmail.com</u>. ●

<sup>1</sup>*Platypus australis*, commonly known as the **polyphagous pinhole borer**, is a species of <u>ambrosia beetle</u> in the <u>weevil</u> family <u>Curculionidae</u> found in Australia. (Wikipedia)





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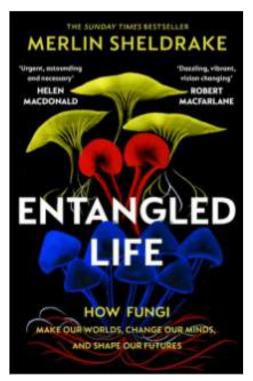
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#### Book Review - Entangled Life.

Roy Pallett



The author's name could readily be that of a Raymond Chandler style mystery writer with the title mirroring a 'whodunit'. This first impression is reinforced by a cursory glance at the early chapter titles – 'A Lure', 'Living Labyrinths' and 'The Intimacies of Strangers'. Don't be fooled. This book is a very important work that goes a long way towards explaining the mysteries of a world almost totally unknown to almost everyone on this planet. The mystery question he illuminates is 'Would we exist if there were no fungi?' Fungi help all life to exist on land.

Merlin Sheldrake's book 'Entangled Life' with the informative subtitle 'How fungi make our worlds, change our minds and shape our futures' is one that should be widely read and not just by people with an intense interest in the environment. The text is 250 pages long and if you are confused or need extra explanations about points as you read, then there is a 'Notes' section of 43 pages.

Northern Group members will know that I have long been fascinated by notions of the 'Wood Wide Web' and communication between plants. Often the reaction to these notions first proposed by Suzanne Simard has been incredulity and disbelief – 'This is interesting, but it is all conjecture.' The strength of this book is not just observations and explanations that Sheldrake has made personally, but it is also based on the most comprehensive bibliography (40 pages) that can be found in a book outside the most rigorous PhD thesis. In addition, if you forget a fact or snippet of information, the index is excellent.

We are all familiar with the common fungi: the destructive moulds that affect our food when left for any length of time, the strain of *Penicillium* that gives us our delectable blue cheese, the edible fungal fruiting bodies such as mushrooms and truffles, the poisonous ones that can cause deaths, the yeasts that bring us bread, beer and wines, the varieties that cause wood to decay, the combination with algae to form lichens and even the ones that alter our minds - and the list goes on. Sheldrake deals with all of these and more in an easy to read, comprehensive account of the fungal world. He estimates that there are at least two million 'species' of fungi. This estimate is tempered by the belief that the familiar Linnaean classification scheme that denotes species for other organisms may not be applicable for fungi and especially for lichens. A different naming and classification scheme for the fungi may need to be redevised. Variations in the forms of fungi do not necessarily mean new species, as they do for example, in flowering plants; DNA analysis will be necessary. That is likely to be an impossible task as the mycelium (also referred to as hyphae) are connected to 97% of all land plants and he contends that if all the Earth's fungal mycelium was placed in a single strand its length would match astronomical distances. This may seem to be far-fetched, but he does ask 'Can we think about a plant without also thinking about the mycorrhizal networks that lace outwards, extravagantly, from its roots into the soil?' It is the hyphae of the mycelium that holds the soil together and delivers the vital trace elements to the plant.

It is suggested that we, and not just APST members, only take a plant-centric view of the world with our knowledge of plants above the soil level and of the ways in which animals are dependent upon them. When invoking the World Wide Web as a model to understand fungi as vital links in the Wood Wide Web we are missing the point that fungi are more than passive cables. Plants can pass chemical information from the air to the fungi. Similarly mycelia are able to channel analogous signals to the plant from beneath the soil surface. These actions are just part of the network of numerous species, with trees in particular able to detect what happens to each other across long distances via the Wood Wide Web.

(The book is far more than this Scientific American summary suggests.)



SCIENTIFIC AMERICAN - A MIND-BENDING TOUR OF THE FUNGAL WORLD

about the nature of intelligence psychodelic drugs, and creative home brews."



Sheldrake suggests that fungi can solve 'complex spatial problems' and are finely tuned to transport substances around. Plants use photosynthesis to make their own food, but fungi have a different strategy, they digest the world where it is and then absorb it. They are opportunistic and adaptable to the point where it has been found that some can even digest modern materials such as some plastics. Fungi can feed essential elements to the plants.

In the first chapter 'A Lure' Sheldrake states that there is a complexity of signals with hyphae using chemical signs to attract compatible mates. Truffles and some other fungi use scent to entice animals that will eat them and spread their spores.

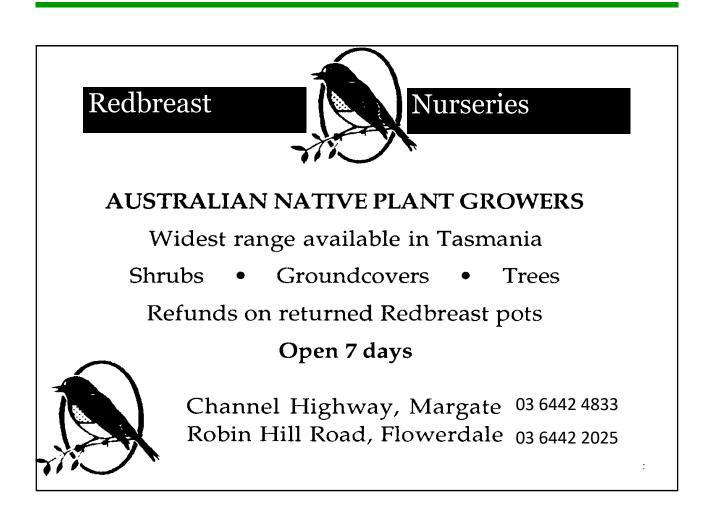
Similarly termites are carriers of fungal spores into their colonies and these fungi develop to the point where they provide a major source of food by breaking down wood fibres. An example of fungi making use of animals is the parasitism of ants where spores develop into hyphae inside ants and compel the ant to leave the nest where it further spreads the next generation of spores.

Symbiosis is an important theme, especially in the chapter 'The Intimacy of Strangers', devoted to lichens which encrust about 8% of the earth's surface. It was lichens with their unlikely combination of fungi and algae, and as has recently been determined, bacteria, which first spread onto the land and increased the breakdown of rocks to form the soil on which land plants evolved. Lichens are the toughest of organisms able to exist in the hottest, driest parts of the planets as well as in the coldest, wettest climes.

There are so many other facets of fungal life and uses in this book. My favourite chapter is the one titled 'Radical Mycology' where fungal evolution and likely uses of fungi to benefit our world are covered. Another amongst a totally fascinating and informative book covers the way in which the mind can be altered by extracts of selected fungal species. We know what happens when the wrong species are ingested.

There is no better book to help with understanding the world of fungi and how our civilization depends on fungi in so many different interconnected means. Some people have complained about the anthropomorphic styled explanations in parts of the book. However, as this is a pioneering book about a little understood and unknown world, including the Wood Wide Web, it should be remembered that as we gained understanding of the World Wide Web, a specialized vocabulary evolved too from some rather weird initial terms that even now are changing rapidly. The anthropomorphic language is helping us to more readily understand the concepts he is outlining. Sheldrake has succeeded in bringing a whole new world to readers and we will eventually become at ease with the new language and concepts and increase our knowledge about the wonderful world of fungi. ●

Entangled Life by Merlin Sheldrake (Penguin Random House)



## Recent Issues Of The AUSTRALIAN PLANTS Journal

Dick Burns

Three of the latest issues of *Australian Plants* came recently; this journal is the official publication of the Australian society and is the responsibility of the NSW society. It is assembled four times a year by volunteer editors and each one is a series of articles on different aspects of Australian plants written by volunteer authors. As such, each issue can be late; these three issues seem to have come in quick succession.

The first, volume 31 number 252, is devoted to small, mostly suburban, gardens established from Queensland down to Tasmania and South Australia. The Tasmanian garden is that of Alison Moore and her partner in Bellerive; they had bought a house with an established garden. Alison mentions one of the problems of setting up a garden, namely removal of weeds and plants from previous owners. Other articles talk about establishing a garden where there was no garden before.

As an aside, Alison mentions the collision that brought about further isolation of the Eastern Shore of Hobart, an event that happened way before the family settled in Bellerive. In fact, just before the collision, I had recently moved to Tasmania and I went back to Sydney for Christmas. There, while filling up, the garage owner remarked 'How did you get here! The bridge is down!'. A bit like the Scottish newspaper that reported after the Hobart fires that a submarine had been sent to rescue the survivors.

The next issue, no. 253, is titled 'Our Vision for the Future', and comes from papers presented at the Kiama conference organized by the NSW society. NSW started hopefully what will become a feature of future conferences, a trend by inviting speakers from among the students at local schools.

I had always been impressed when a young scientist got up to speak at a conference, demonstrating such a firm grasp of their subject, but these were schoolkids! The range was from year 11 back to primary school-age. They spoke of their experiences from recovery projects to their concerns regarding the future of biodiversity. Whether future conference organisers keep this important system going depends upon their willingness and how impressed they were by the vision of NSW.

The no. 253 issue also included profiles of the two recipients of the Australian Plants Award, both professional and amateur. These awards, the highest offered by the Australian Native Plants Society Australia (ANSPA) are presented at each twoyearly conference. There was also up-to-date information on the ANSPA website.

I have included the cover of the third issue, number 254. Tasmanian bushwalkers who have walked in the MT Ossa area will recognise the columnar dolerite peak on the right as Mount Hyperion. The photo is on the cover because there is an article written by a NSW member who wandered among the Central Highlands in the 1990s. He was taken by the unusual (to him) Tasmanian plants he encountered and photographed. And identified correctly.

The same issue has major articles on the plants in their natural environments: firstly the Glasshouse Mountains, remnant volcanic peaks of lower Eastern Queensland. There are excellent photos of the plants of the deserts of Central Australia. They were taken by two women who were searching along with their husbands for remains of British and other European rockets fired from Woomera Rocket Range in the 1960s. The Australian plant theme continues with an article on sand-tolerant plants around Alice Springs in the Northern Territory. There is, in the same issue, an extensive bit on the history as experienced by the author, of a dwarf form of the NSW Christmas Bush, *Ceratopetalum gummiferum*. I wish it had been around when I set up my garden; my NSW Christmas Bush is tall and columnar and it has to be trimmed regularly to keep it away from my telephone cable.



#### Hello Australian Plant Society Tasmania Inc Folks

The Threatened Species Strategy Discussion Paper has been released for public feedback until Friday December 22, 2023.

https://nre.tas.gov.au/conservation/threatened-species-and-communities/ threatened-species-strategy/threatened-species-strategy-discussion-paper

Threatened Species Strategy Discussion Paper | Department of Natural Resources and Environment Tasmania (<u>nre.tas.gov.au</u>)

Please provide feedback. I am managing the project process; please get in touch if you have any questions.

Kind Regards, Michelle

**Phone:** 0439827577

Email: Michelle.Foale@nre.tas.gov.au



We encourage you to take a look at the short promotional video on the **APS Vic website** 

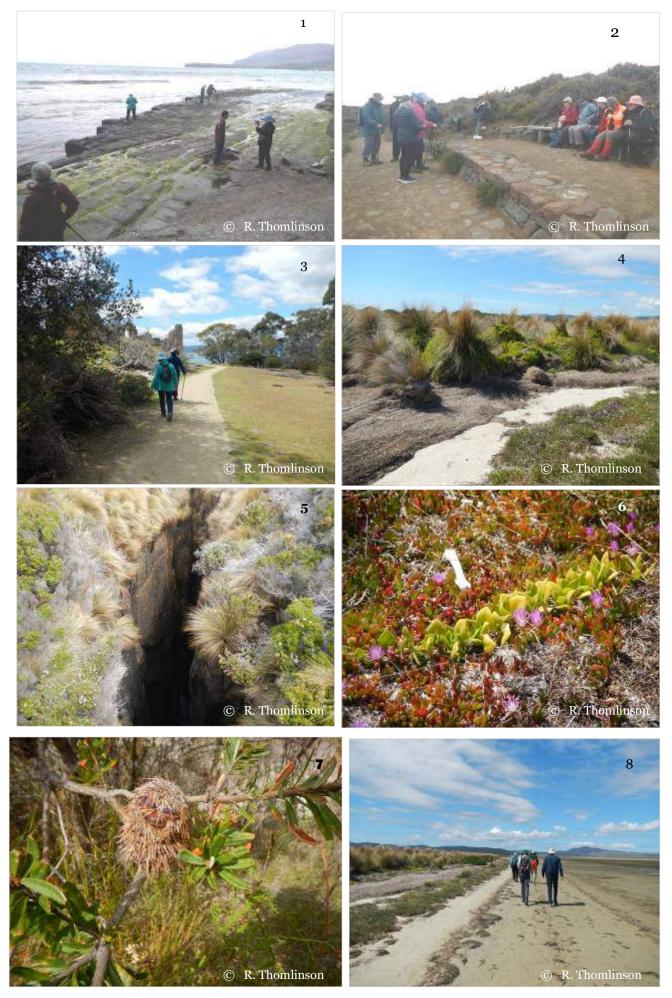
https://apsvic.org.au/anpsa-biennial-conference-2024/

Contact Details Email: anpsaconference@apsvic.org.au

Register Your Interest: https://apsvic.org.au/anpsa-biennial-conference-2024



Tasman Peninsular : 1 Tesselated Pavement; 2 Lunch time; 3 and 4 towards the Blowhole; 5 Maingon Blowhole; 6 tell me; 7 A true Banksia Man; 8 Marion Bay Walk



# **Membership Information**

Margaret Killen Membership Officer

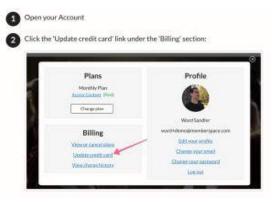


Membership of the APST Inc. gives people interested in Australian native plants connection to an extensive network of knowledgeable and enthusiastic people throughout Tasmania and the wider world. To discover our Objectives have a look here <u>https://www.apstas.org.au/council</u> on our website.

#### Managing Subscriptions:

If you have subscribed on-line and need to **update or change your information** such as; personal **Details** (e.g. email), membership **Plan** (e.g. concession status) or **Billing** information (e.g. credit card) use the '**Member Menu'** located centrally on the top green bar of the website and follow the prompts via 'Your Account'.

The following guide gives an example of how to update your credit card details.





For all other subscriptions (e.g. EFT payment) or membership enquiries or access to the *members only* section of the website, please contact the Membership Officer (details below).

Please note that your credit card details are kept on file, we (APST) do not have access to that information. The system we use for our secure payments is STRIPE, which facilitates the transfer of money from your bank (via your card) to the APST bank.

#### **Annual Subscription Rates:**

Children under 16 free

- A. Individual or Organisation \$40
- B. Individual with APJ\* \$65
- C. Individual concession \$37
- D. Individual concession with APJ\* \$62
- E. Household (individual plus 1 additional adult) \$49
- F. Household with APJ\* (individual plus 1 additional adult) \$74
- G. Household concession (individual plus 1 additional adult) \$46
- H. Household concession with APJ\* (individual plus 1 additional adult) \$71

Subscriptions are due annually and fall due on the anniversary of the month of joining.

\*The Australian Plants journal (APJ) is a national quarterly hard-copy publication which requires an additional subscription rate of \$25. These are inbuilt in the above rates.  $\odot$ 

Margaret Killen Membership Officer membership@apstas.org.au 0409 430 665

#### **Group Reports**

#### Northern Group Report

Kay Pallett

Three of the busiest months have seen constant activity for Northern Group members. There were successful native plant displays at the two Evandale Horticultural Shows. The flowers on display were quite different, which was a little surprising with the displays being just one month apart. There were kunzeas, acacias, hakeas, *Grevillea australis* in the first display while in November, melaleucas, leptospermums, *Goodenia ovata, Alyogyne huegellii, Chrysocephalum apiculatum*, plus centre-stage a potted *Stylidium graminifoliun*, were the natives drawing attention.

Monthly propagation sessions are always well attended with well over twenty members sharing the nursery work. Their conscientious efforts were rewarded with another inspiring sale result in October. Nine new members joined. In November the cycle began again with a focus to move plants from the crowded shade house to the empty outside benches. It is hoped to increase the number of Tasmanian plants next year.

The Tasmanian Native Garden working bees have been quite well supported with 10-15 members attending. Spring working bees are always a pleasure as members enjoy the vivid displays that September, in particular, brings.



Pittosporum bicolor Olearia phlogopappa with Clematis aristata Richea dracophylla

The working bees at Cambridge Reserve are making noticeable progress in 'the war on weeds'. Recently native poas were planted, replacing invasive grasses. In addition members from the Reserves Conservation Committee have been very busy organising and leading flower walks including one at Carr Villa. The aim is to encourage the interest of people in the surrounding neighbourhoods to ensure an awareness of the flora/fauna value of these pockets of bushland. Much credit goes to the very industrious members of this small group. Interested others are always invited as the group does need to spread the workload for such important projects, now expanding to include the Carr Villa bushland and its endangered plants.

A welcome addition to our program has been several garden visits. Members, averaging 15 on most days, have appreciated gardens such as Daphne and Peter Longman's at Dilston; three others at Far View Avenue, Riverside; two more in the Eccleston Road area; Rosemary and Alf Verbeeten's at Gravelly Beach. In November, members were treated to another three wonderful gardens in a day, starting with Margaret Killen's Riverside garden, then moving to Trevallyn before finishing at Legana.

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(Continued next page)

Guest speakers have covered diverse topics. In September, Rod Griffin and Chris Harwood, experts on acacias, gave two presentations. The first by Rod, 'Some things you may not know about acacias': The acacia is culturally significant. It is a symbolic icon. A.pycnantha is the National floral emblem. Rod also noted that when taxonomists decided that the African and Australian acacias had distinct differences, Australia managed to retain the acacia name, despite Africa having the type species. Of the 1,000 acacia species only a third grow to 5m or more and these are the trees that produce a useful amount of biomass for industry. A.dealbata, introduced in France 200 years ago, today is producing 300-400 kg/pa of floral extract for perfume use. There are only four acacias endemic to Tasmania but seventeen others which grow here. (The next day members viewed several of these on an excursion in the Windsor Park Gardens.) In conclusion Rod described his current work to determine what actually pollinates Tasmanian acacias because some are in flower before bees are out. Birds and wind are the likely pollinators. Substantiating experiments are in progress.

Chris' presentation focused on the acacia industry in Asia, in particular his work in Vietnam. He described tree harvesting which occurs there on a 7-8 year cycle as opposed to 15 years in Australia. In Vietnam, instead of large companies, it is farmers who grow the plantations on small plots (around 2 hectares). He discussed the productivity of these small plots and the importance of good management practices to protect the highly erodible tropical soils. Much work has been done on genetically improved seed breeding and the long process (15 years) to produce commercial clones. He noted that it is tropical acacias that have been developed for use in Asia but even these are insecure as predictions show their distribution will decrease markedly with global warming.

Seaweeds (algae) was the topic of October's guest speaker, Fiona Scott, an expert in her field. Members were taken through the widespread variation to be found in the world of algae, viewing different family features and afterwards a bonus display of beautiful pressed seaweeds some with such unexpected colours. The following day there was an excursion to East Beach, Low Head, where clumps of dry seaweeds were brought alive as Fiona identified the individual specimens, providing details, distinguishing the holdfast, giving it shape for the untrained eye. Overall members gained an appreciation of algae, their diversity and importance to the oceans and the atmosphere.

Mark Wapstra, the final speaker this year, highlighted ephemeral plants which are generally short-lived. They make up a large part of all flora and many are endangered so it is important to have knowledge of them to help in their conservation. The next day members learned more about the 'elusiveness' of ephemerals in the Trevallyn Recreation Area. However, Mark's sharp eyesight ensured that many tiny plants e.g. *Stylidium despectum* were keenly detailed under the hand lens.

Plants of the Month were short presentations with Janet Hallam describing *Cyphanthera tasmanica*, a rare and endemic species found on granite or dolerite slopes or in dry forests. It has creamy white flowers, grey-green foliage and could be an attractive garden plant with regular pruning and moist, well-drained soil. Noel Manning reminded members of the impressive stature of *Nothofagus cunninghamii*, myrtle beech, a 40m tall tree more closely related to *N. moorei* than the deciduous *N. gunnii*. It is a dominant species of cool temperate rainforests in Tasmania and Victoria. It has a smaller leaf than *N. gunnii* and interestingly this is thought to have developed over geological time as the climate cooled. November Plant of the Month, *Gaultheria hispida*, chosen by Leaha Dent grows in wet forests and is noted for its snowy white fruit which was eaten by Tasmanian aboriginal people and also early settlers.

Early in November several members journeyed south to enjoy the well planned Get-together in the EagleHawk Neck area. The year has been a good one for floral delights and the three days of walks provided variety and interest. There was a range of challenges such as the longer Crescent Bay, Mt. Brown walk or the Shipstern Bluff walk. Shorter versions comfortably provided for those happier to stroll and ponder over the many many flowers on display.



Coronidium scorpioides



Calytrix tetragona



Epacris tasmanica



Aotus ericoides



Boronia pilosa



Hakea lissosperma

Throughout the spring season the programme committee has facilitated a number of excursions covering different areas of the state. Over three days in September several members journeyed to Hobart to the Herbarium. There they were enthralled by historical documents from the collections of Banks, Solander and Labillardière for example, and to see newly discovered plants such as a Viola species from the west coast. Some members detoured on the southern leg to visit Spinning Gum Conservation area and a nearby area to photograph a stand of *Acacia patacze-kii*. After the morning at the Herbarium, members were fortunate to view Robin and Peter Tuft's expansive garden and off-grid house where they had lunch. Next day a few travelled to the Hawthorn and Boronia Hill Reserves at Kingston being guided around these by Prue Wright.

An excursion to Mt. Cameron was a day to remember, especially for those who for the first time, saw *Dockrillia striolata*, the rock orchard, hanging in swathes on granite boulders. One more treat was the fire orchid, a little past its peak but still a treasured sighting. The Chauncy Vale excursion, guided by Graham Greene was an energetic day with lots to see such as *Eucalyptus tenuiramis*, *E. pulchella* plus *Olearia, Ozothamnus, Epacris* and *Boronia* species. Members were impressed by the wind carved sandstone caves, many of which are home to owls and raptors and sad to say even visited by goats. On the way out a few concrete wombats were at home amongst the grassy vegetation.

Bridport was the destination for the last excursion - another recommendation by David Waters, who photographed such beauties as *Comesperma volubile, Burchardia umbellata* and *Leptomeria drupacea*. (See more on APST's Facebook page)

With so much to see and do and members eager to participate the year has been a good one, with some significant achievements. It will culminate with the Christmas dinner on Friday, 8th. December - a fitting way to end the year with delicious food-laden tables, vases of native flowers, and lots of conversation and laughter.  $\odot$ 



Members on the airshaft walk during the Society Member' Get-together.

#### North West Group

Simon, Riitta, Drew, Mary

The August meeting was held in the daytime at the Tasmanian Arboretum with the guest speakers coming from within the Society and from the very top: APST President Louise Skabo and Margaret Killen our membership officer.

Wonderful computer slides helped to tell the history and story of the changing over from SGAP to become the Australian Plants Society Tasmania. Brief histories of the three Tasmanian groups were also told with the Launceston group the most active at the moment.

How to keep existing members while encouraging new membership was a question posed. With society in general being 'time poor' gaining the interest of the public will be a key issue.

An excellent amount of flowering specimens were on show on the monthly plant table. All the plants came from Riitta and Jan's garden.

Riitta said 'I collected some of the more colourful winter flowering plants from our garden. One of the pleasures of growing Australian plants is that you have flowers all year round.'

As usual there was a dedicated team at the monthly propagation session held at the Tasmanian Arboretum. Cuttings, potting on and liverwort removal were all tasks being performed. This is a hands on session, helping and learning all about growing native plants from cuttings.

Our regular third Tuesday night of month meetings came back on in September after the winter break of daytime meetings. The new location for these meetings is at the East Devonport tennis club rooms. The club rooms are a good size for our group, has a kitchen, toilet facilities, room for the projector and all the flower displays. It should suit our needs well.

Some ideas of community projects that the group might be able to contribute to were tabled and input was requested from our members as to which projects are worth investigating more and who would like to be involved.

This month Hakeas dominated the plant collection, this month in our garden Hakeas stood out. Riitta collected Hakea bucculenta, cinerea, nitida, purpurea and dactyloides. The beautiful pink flowering Hakea bucculenta (Red Poker) seems to do better in a grafted form, although all other Hakeas are quite happy on their own roots. Her favourite is Hakea dactyloides (Finger Hakea). It will grow to 4m, and flowers for a very long time with long 'fingers' of white flowers.

Ian, back from his long trip to WA, had Diplarrena morea, Stackhousia monogyma, Arthropodium strictum, Coronidium scorpioides Xerochrysum bracteatum, Rhodante chlorocephalaoides, and many more. These small annuals are best grown from seed, but the seed can be tricky. Ian has been trialling different ways for smoke treatment to encourage germination.

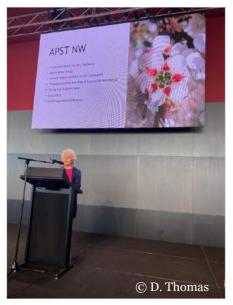
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At the Devonport 'Expo of Everything', everything was there – community organisations taking a free opportunity to present themselves to the public. Dancing, singing, Slipstream Circus – the lot! AND us. Ritta took up the opportunity to present from the main stage area, and did well against many distractions.

There was a great band of us through the day – thanks to everyone who chipped in their time. We had a great display – rolling sli'des backing us, flower samples, and a demonstration of taking cuttings. 'Grow Local" walked out the door.

We had an excellent range and number of conversations, some with folk to whom the idea of natives was novel.

It was the first Expo, but I think an easily big enough success for Devonport Council to repeat. The price to us - \$0 is certainly right for the number of contacts we made.



The October meeting was mainly focused on the upcoming plant sale and future events for the next year.

A good team at propagation put the finishing touches to getting our plants ready for the spring sale. We still managed to do a few punnets of cuttings that will start to fill the void of all the sold plants. Plants that had been in members off-site green/hot houses were adding to the collection which all made their way to Port Sorell for a short trip to the successful plant sale on the Saturday.  $\odot$ 



# **APST Directory**

# COUNCIL

Postal address	s: P.O. Box 1205 Gravelly Bea TASMANIA		<b>Email</b> : a	pstsec@gmail.com	
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Vice-President	Judith Blayden	0408 491 107	North West Councillor	Drew Thomas	6437 1802
Secretary	Mary Slattery	0402 784 086	Hobart Councillor	Jenny Boyer	6293 1113
Treasurer	Anthony Salt	0412 673 632	Hobart Councillor		
Public Officer	Mary Slattery	0402 784 086	Northern Councillor	Jo Boniface	0434 981 438
Membership	Margaret Killen	0409 430 665	Northern Councillor	Ian Thomas	0438 392 041
Officer					

# GROUPS

## **Hobart Group**

President Secretary Sec. Email	Jenny Boyer Prue Wright apsthobartsec@gmail.com	0434 870 576 0438 410 192	Meeting place/time: General meetings: <u>Kingston Primary School Library</u> Off Church St, Kingston Second Wednesday of the month 7pm
Treasurer	Anthony Salt	0412 673 632	Kingborough Day Meetings, First Wednesday of the month (not Janu-
Contact Officer	Janet Stephens	0438 705 319	ary). Contact: Carmen Walker 0421 449 446

# Northern Group

President	Roy Pallett	0438 392 041	Postal address:
Secretary	Anna McGrane	0419 347 743	45 Osborne Avenue, Trevallyn, Tas. 7250
Treasurer	Rosemary Verbeeten	0458 812 850	Email: apstasnorth@gmail.com Website: www.apstasnorth.org
Eucryphia Liaison	Kay Pallett	0400 097 025	<b>Meeting place /time:</b> <u>Max Fry Hall, Gorge Rd, Trevallyn</u> 7.30 pm Third Tuesday of the month (except December and January).

# North West Group

Riitta Boevink Drew Thomas John Boevink Mary Slattery

President	
Secretary	
Treasurer Eucryphia Liaison	

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