A charity fostering scientific research into
the biology and cultivation
of the Australian flora

Research Matters

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Australian Flora Foundation Grants

Six grants were awarded by the Foundation for research that began in December 2025. Five of these grants were reported in the AFF newsletter in January 2026, a description of the sixth was inadvertently missed and is provided below.

Small Grants

Advancing plant conservation: Investigating reproductive strategies and pollination to guide management of threatened Australian flora using *Prosthanthera* as a case study

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Effective pollination, resulting in viable seed, is required for persistence of threatened plant populations and species. Our project aims to comprehensively assess the pollination ecology of endangered *Prostanthera* (Lamiaceae), focusing on conservation outcomes. For three phylogenetically and morphologically distinct species, we will establish baseline reproductive and pollinator requirements to identify factors impacting population persistence. We will assess pollinator community and pollinator limitation, breeding system and impact of self-compatibility on seed production, seed dormancy and germination requirements. Findings will be integrated with available genomic resources to improve understanding of pollination of threatened *Prostanthera* taxa and advance guidelines for effective conservation management.

The specific objectives of this proposed research are:

1. Identify the pollinator community and assess for pollinator limitation
Identifying whether *Prostanthera* populations rely on specific pollinators for reproduction is a key first step to understanding the pollination requirements of these threatened populations. If populations are pollinator-limited, targeted interventions such as pollinator management may be necessary to support reproduction. A list of pollinator species will be produced to inform the conservation management plan.

2. Investigate the breeding system and the impact of self-compatibility on seed production and quality
Predominantly self-incompatible species can struggle with recruitment in fragmented habitats due to limited pollinator availability. A comprehensive understanding of floral phenology and pollination mechanisms will be gained for three species, which will assist with determining pollinator efficacy from observations. For these species, we will also learn whether seed set is influenced by pollinator limitation, as well as the capacity for self-seeding, thus informing conservation

strategies with regards to mitigating in-breeding depression in habitat restoration, assisted migration, and maintaining viable populations.

3. Determine seed dormancy and germination requirements

In *Prostanthera*, physiological seed dormancy is commonly reported, and removal of the mericarp plug – a mechanical dormancy mechanism – has been shown to improve germination success. In this project we will assess whether published protocols for overcoming dormancy and inducing germination in *Prostanthera* can be effectively applied to the three target species. The outcomes of this research will enhance our understanding of dormancy mechanisms across a broader range of *Prostanthera* species and support the development of effective propagation protocols. Findings will inform seed banking practices for the three project species and, due to their phylogenetic diversity, will also contribute valuable insights into seed banking strategies for other members of the genus.

This research will be done in collaboration with the Gandangara Local Aboriginal Land Council on whose land these species occur on.

Article: Agritech at home

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Introduction

A home grower sits in her apartment asking ChatGPT what the best potting mix might be for microgreens. Across Sydney, another grower receives daily notifications from a plant-care app reminding her to water her houseplants. In a university office, Devil's Ivy climbs walls under artificial lights. Yet elsewhere, a mother and son continue to rely on something much older: simply looking at the plant and seeing what it needs.

These are just some of the stories that emerged from interviews and participant-led photo surveys exploring home growing practices. Urban residents are growing and caring for plants using a wide range of technologies, from improvised DIY growing set-ups to high-tech embedded growing systems. As part of our current research project, funded by the Rothwell Architecture Research Program, we have interviewed home growers who use agritech, as well as suppliers and designers involved in developing these technologies. Our definition of agritech – a portmanteau of "agriculture technology" – is broad. We conceptualise domestic agritech as ranging from high-end smart technology growing systems to DIY systems which may include elements of digital or sensor technology, but not always. Through this qualitative study, we explore how technologies originally developed largely for commercial agriculture are adapted, repurposed and domesticated within household settings.

Left: A soil sensor linked to a smartphone app allows growers to monitor moisture and environmental conditions remotely. Middle: LED grow lights supporting Devil's Ivy cultivation in a university office. Right: The results of a home grower consulting ChatGPT about the appropriate ratio of orchid specialty potting mix, coarse-grade perlite, and premium potting mix.

Commercial visions of agritech often promise seamless automation, optimisation, and increased productivity through technologies such as sensors, automated irrigation systems, and artificial intelligence. However, our interviews with home growers suggest a more complex picture. As more Australians living in smaller spaces experiment with indoor plants, balcony food production, and home growing technologies, it becomes increasingly important to understand how these systems are actually integrated into everyday life.

Agritech moving into households

Homes have always been sites of consumption and production and there is a long history of growing things at home. Yet increasingly the home is being resituated as a space of technology-mediated growing practice (Maalsen et al. 2025) and everyday sustainability (Waitt et al. 2012). Spare rooms, balconies, garages, and apartment corners are being transformed into small growing environments, often filled with grow lights, hydroponic systems, sensors, shelving, and indoor plants.

Unsurprisingly, there are distinct differences between the scale of systems we have observed and what we might normally associate with agritech. Walking into some of the domestic environments shown in our study, many growing spaces are small in scale and embedded within everyday domestic routines. But there is a direct lineage traceable to controlled environment agricultural practices. Many of the technologies appearing in homes today have origins in controlled-environment agriculture and commercial food production (Marvin et al. 2024). What is striking is how these technologies are being repurposed and adapted for domestic contexts.

Despite marketing images that show agritech seamlessly integrated into the home, the reality is often different. Growers continually adapt technologies to fit the realities of domestic life. Such improvements can be understood as a form of 'hacking' (Maalsen 2026), which describes the creative adjustments that allow people to make systems work in ways not anticipated by their designers.

Our participants demonstrated this in a range of ways. Some created simple self-watering systems using recycled water bottles while away from home during the holiday. Others transformed finished gin bottles into hydroponic vessels. A microgreen lover, as part of a broader interest in healthy living and nutrition, used foil-lined containers to create dark environments for sprouting beans. Another participant built raised planters from repurposed household materials. These examples illustrate how domestic growers frequently combine commercial technologies with improvised solutions, creating growing systems highly personalised to their spaces and daily routines.

Examples of DIY growing technologies in the home. Top left: A slow-watering system created using a recycled water bottle to keep plants watered while the grower is away from home. Top right: Mung beans being sprouted using foil-lined containers to create a dark growing environment inside a refrigerator. Bottom left: Recycled gin bottles repurposed as hydroponic vessels for seed germination and plant propagation. Bottom right: A home-built raised planter used for growing vegetables in a domestic garden.

Learning to grow digitally

Alongside physical technologies such as grow lights and sensors, digital platforms are increasingly shaping how people learn about growing plants at home. Social media platforms, Reddit forums, YouTube channels, Facebook groups, and online retailers all play important roles in shaping how people learn about growing techniques and technologies, how they troubleshoot problems, and share experiments. Recent research on digital agriculture similarly suggests that agritech development increasingly depends on interactions between suppliers, platforms, researchers, and users (Klerkx et al. 2019).

Several home growers described using apps to support everyday growing practices. One participant, for example, used a plant-care app and a soil sensor linked to her smartphone to help manage her growing collection of houseplants. The app provided reminders about the plant's maintenance yet over time, she realised that she and her partner both found themselves turning the app's notifications off. The constant stream of alerts became overwhelming and disturbing.

Some participants turned to digital tools to build confidence and learn new skills, especially when they were new to planting or gardening. One grower, who had recently migrated to Australia, was experimenting with the natural light conditions on her north-facing balcony. As a new grower, she used ChatGPT to troubleshoot plant problems, understand growing conditions and learn about unfamiliar species.

Technology doesn't replace gardening

While technologies differed and adoption also varied, participants' motivations were quite similar. Some were interested in producing fresh food, to grow something healthy and align with the lifestyle they'd like to pursue. Others enjoyed the challenge of cultivating rare species indoors. Many described growing as relaxing, rewarding and deeply satisfying. Plants were companions, gifts for or from friends, conversation starters and sources of small pleasure in everyday life.

One participant, who is temporarily living with his mother while between jobs, helped look after plants in the house. When he was asked about using technologies in planting, he said that rather than relying on schedules or monitoring devices, care is based on observation and experience.

This mother-and-son growing household highlighted something that appeared across many interviews. Whether participants used artificial intelligence, smartphone apps or no digital technologies at all, growing remained a practice of attentiveness. House plants still needed to be observed and responded to.

Another participant had spent years growing Devil's Ivy throughout a windowless workspace using LED grow lights, timers and self-watering pots, turning the space into a miniature indoor jungle. Plants climbed walls, wrapped around columns and softened the exposed pipes and industry-like surfaces of the office room.

Yet despite the technological setup, much of the work involved experimentation. As the office grower explained, light levels need adjusting, the moisture level requires monitoring, and pest outbreaks demand attention. Technologies created new opportunities for growing, but they also generated new forms of maintenance and learning. Reflecting on the process, the grower explained he enjoyed the process of tinkering, observing and adapting:

> *"It's the learning curve. But I guess that's what I'm after in a hobby like this."*

These stories reveal several ways that technology is being integrated into domestic growing practices. When agritech enters homes, its form, application and motivations are reshaped by domestic life. Although the study is ongoing and our qualitative study does not represent all home growers, our interviews suggest that motivations for adopting domestic agritech extend well beyond efficiency and productivity.

As agritech is 'urbanised' and enters our households, it rarely arrives as a finished system. Its application often involves forms of 'hacking', shaped by everyday routines, spatial constraints, household relationships and personal aspirations. Home growers still rotate plants to capture sunlight, adjust blinds, move pots between rooms, test soil moisture with their fingers, and sometimes simply choose species better suited to their homes. Technologies are continually adapted to suit particular living environments, and growers experiment to discover what works for different species and spaces. The future of home growing may well involve more sensors, apps and automated systems. Yet our research suggests that these technologies augment rather than replace the practices that have always underpinned cultivation: observation, experimentation and care.

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Article: From field to lab – the role of Australia's native plants societies in flora research

Heather Miles
Australian Flora Foundation

Introduction

For many Australians, an interest in native plants begins simply: a flowering *Grevillea* noticed on a bushwalk, a desire to attract more birds to the garden, or a local field trip that reveals the extraordinary botanical diversity hidden in plain sight.

For others, the entry point is science, conservation, or professional work. Increasingly, these paths converge.

Recent generous donations to the AFF from the Australian Plants Society NSW (https://austplants.com.au/) and Australian Plants Society Victoria (https://apsvic.org.au/) are a timely reminder of a relationship that runs deeper than a shared enthusiasm for plants. The Australian Plants Society (APS) movement — operating through a national network of thousands of volunteers — is a significant, if often underappreciated, contributor to Australia's botanical knowledge and conservation ecosystem. Understanding and supporting that relationship matters for anyone who cares about the future of Australian flora and its research.

A shared foundation

The connection between the Australian Flora Foundation (AFF) and the APS movement is not incidental — it is constitutional. When the Australian Flora Foundation was established in 1981, its founding members included not only academic and government scientists and university horticulturists, but also members of what was then known as the Society for Growing Australian Plants. The two organisations were born from the same conviction: that Australia's extraordinary flora deserved serious, sustained attention.

That founding partnership has continued quietly ever since.

As well as bequests, many of the regular donors to AFF are district-level APS groups — Sutherland, Newcastle, Mackay, and others — alongside individuals who have spent decades active in the APS movement. The donations are significant and deeply appreciated, but the relationship they represent is more important still.


Left: *Grevillea* sp. from Noel Jupp, Riverdene Nursery, right: *G. dryandri*, Anbangbang, Northern Territory (images from H Miles).

A distributed network of observation and participation

Across Australia, thousands of APS volunteers contribute through a network of organisations affiliated with the Australian Native Plants Society Australia (ANPSA) (https://anpsa.org.au/). State bodies operate in every jurisdiction and provide support and governance to dozens of district groups embedded in local communities across the country (https://anpsa.org.au/anpsa-contacts/#states).

The district groups are where much of the practical experimentation happens. From 1960 to the 1980s, they were the only source of knowledge and plant material available to aspiring native plant gardeners.

Today, members continue to contribute in remarkably diverse ways. As well as continuing to make native plants available through propagation and sale in community nurseries and markets, they are active in:

- Generating and sharing knowledge
    - Creating and maintaining native gardens, requiring ongoing experimentation with what grows where and careful observation of plant performance
    - Improving propagation success by trialling methods for germinating seed, striking cuttings, and grafting
    - Establishing show gardens to educate and inspire local communities
    - Sharing findings through books, websites, social media, workshops, newsletters, meetings, and conferences

- Directly contributing to conservation efforts
    - Participating in and supporting research projects such as seed banking efforts, rare plant monitoring programs, habitat restoration projects, and *ex situ* conservation activities in collaboration with councils, botanic gardens, and universities.
    - Creating a sense of community of like-minded people

Australian Plants Society as a creator and sharer of knowledge

Over the years, APS has cultivated deep botanical expertise outside formal academic structures. This is done in several ways.

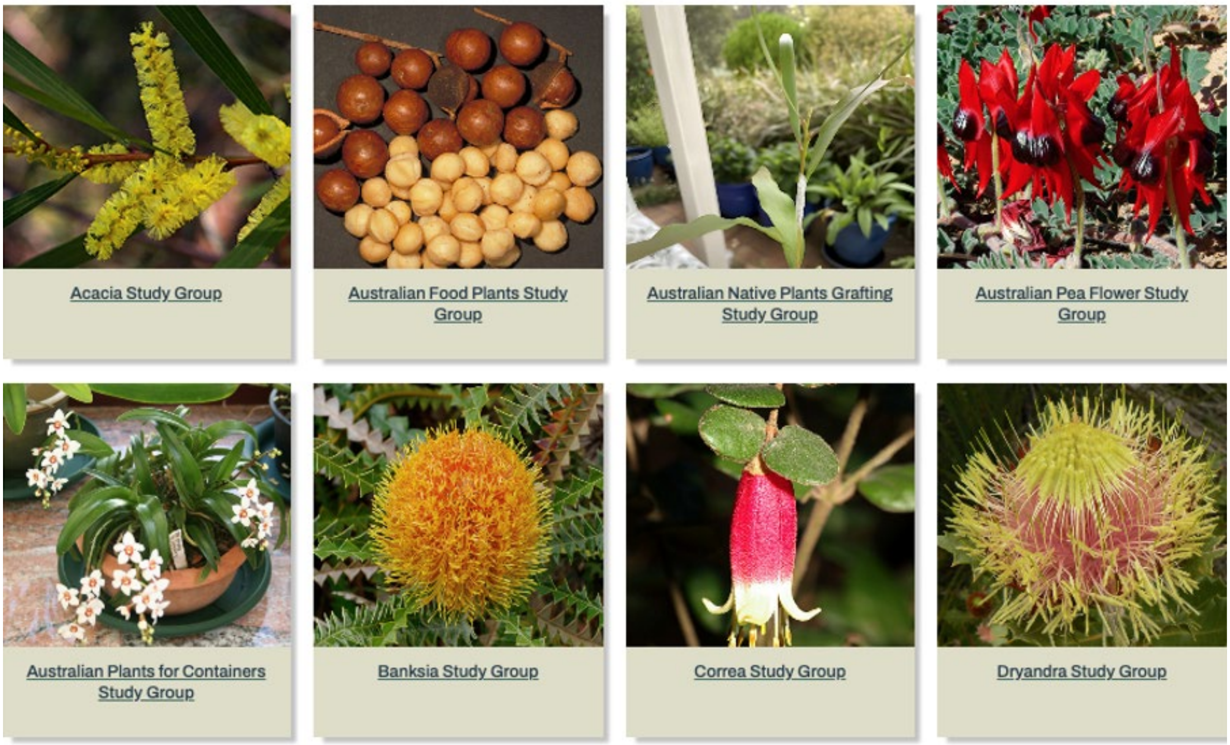
1. *ANPSA Study Groups*

The ANPSA study groups are organised around particular genus or horticultural applications. Over time, these groups have produced bodies of practical knowledge that rival that of professional taxonomists and ecologists.

Each study group dedicates itself to creating knowledge about that genera or ecosystem, and sharing it through meetings, books, personal observation and regular newsletters and conferences.

The Grevillea Study Group, for example has issued more than 100 newsletters, covering cultivation, propagation, conservation and field trips since 1978.

The Eremophila Study Group has a long-running collaboration with the University of Queensland (UQ). Over several years, Study Group members across five states have systematically collected fruit from their gardens and from wild populations — under permit — and mailed them to UQ's Gatton Campus for a germination project funded by the Australian Research Council. By 2023, members had contributed more than 13,000 specimens. Researchers at UQ are using this material to study seed viability, pollination, and how chromosome number affects germination across the genus. A separate study on ploidy in *Eremophila*, funded by the Australian Flora Foundation, grew from the same collaboration. It is a partnership that could not exist without the Study Group's geographic reach, the decades of cultivation knowledge of its members, and their willingness to travel remote Queensland roads with collection permits and a good eye for a fruiting shrub.



Sample of ANPSA Study Groups (https://anpsa.org.au/anpsa-study-groups/).

2. *Learning from experts*

Several well-known names illustrate the connection between enthusiasm and expertise. Peter Olde's work on the genus *Grevillea* is foundational to both hobbyists and taxonomists. Alex George is a major authority on *Banksia*, with a publication record that would sit comfortably in any university department. Rodger and Gwen Elliott's encyclopaedic documentation of Australian plants has provided baseline data for generations of researchers. Neil Marriott's knowledge of grevilleas spans both taxonomy and horticulture.

At a local level, experienced members play a critical role in enhancing propagation success by exhaustively trialling various methods for germinating seeds, striking cuttings, and grafting – and then sharing those insights with others. As one 35-year member says,

> *"The knowledge I have gained from other members on propagation has enabled me to grow plants that can't be found in nurseries – precisely because they are often not easy to propagate. Without first learning from senior experienced members who have done much experimentation, I would not have the range of plants I have*

now, including more than 70 different Eremophila *species, more than half of them grafts I have done myself. Such experimentation is not often encountered outside APS groups."*

3. *Citizen science*

The flow of knowledge does not always involve field trips or laboratory partnerships. It can be as simple as opening a hard drive or smartphone app. One of us has spent at least a decade photographing native plants across Australia — thousands of images with no obvious destination. Uploading more than 2,000 of them to iNaturalist (https://www.inaturalist.org/) has given that archive a second life: georeferenced, searchable, and available to researchers tracking species distributions in a changing climate. It is a small act, but when multiplied across a network of plant enthusiasts, it adds up to something a funded survey program may struggle to replicate.

4. *Communication*

Through books, newsletters, journals, conferences, field trips, show gardens, plant databases, and online forums, APS groups share their findings to enthusiasts who are well placed to act on them. A result published in a botanical journal reaches one community; the same result discussed at an APS field day reaches gardeners, propagators, seed collectors, and land managers who may apply it immediately.

These examples are not outliers. They represent a model — of rigorous observation, sustained over decades, motivated by genuine passion — that the APS movement has quietly produced over the years. Many members never publish in peer-reviewed journals, yet the knowledge they carry, and the observations they contribute to citizen science platforms, seed banks, and collaborative projects, is scientifically valuable.

Direct participation in research and conservation

In addition to creating and sharing knowledge, the APS movement plays a role that formal research institutions can struggle with — translating scientific knowledge into practical application and feeding practical observations back to researchers. Essentially, APS acts as a research multiplier.

Members assist in the implementation of research findings by directly supporting conservation efforts. This kind of distributed, motivated attention to the landscape is increasingly hard to replicate by other means.

A recent example is the '*Conserving Wimmera Rarity*' project initiated by members of the Wimmera Growers of Australian Plants. After recognising that several rare and endangered plant species of the Wimmera and Little Desert were receiving little conservation attention, local APS members approached the Royal Botanic Gardens Cranbourne and helped establish a collaborative conservation program. Volunteers assisted with locating populations, obtaining permits, collecting propagation material, and identifying sites for future plantings. The project has since expanded to involve botanic gardens, government agencies, private landholders and community grants, with the aim of safeguarding some of the region's rarest flora. It is an excellent illustration of how local knowledge, curiosity, and long-term observation by native plant enthusiasts can catalyse research and conservation outcomes that extend far beyond the community itself.

Member participation in research and conservation. Left: APS Hunter Valley presence at a local market (image from H Miles). Right: APS members ready to plant at Pambalong Nature Reserve (image from P Lightfoot).

For 30 years, Lloyd Hedges was the mainstay of the Menai Group of APS NSW, developing the group's nursery, community education programs and demonstration native garden. He also propagated thousands of native plants for restoration projects. These included revegetation projects in the Royal National Park, Dharawal National Park and Five Islands Nature Reserve, as well as leading the production of 13,000 she-oaks for the '*Glossies in the Mist*' project for creating habitat corridors for the vulnerable Glossy Black Cockatoo.

Australian Plants Society as a supporter of community

Underlying all of this is something harder to quantify but easy to underestimate: the social fabric of the APS movement. People join APS groups to find others who share their interest. The relationships formed are what sustain long-term commitment — to the group, to the landscape, and to the work of observation and conservation that makes everything else possible.

A membership that is genuinely engaged — actively involved in field activities, propagation, and knowledge-sharing — is far more likely to contribute to research in practical ways: providing access to private land, assisting with sample collection and planting, flagging unusual observations, or funding young scientists. The APS network, in this sense, helps make Australian flora research possible.


Examples of engaged and enthusiastic members. Left: Planting *Melaleuca quinquenervia*, and right: planting *Banksia* sp. (images from P Lightfoot).

Looking ahead

Like many volunteer organisations, the APS movement faces challenges, particularly an aging membership. Younger generations find their knowledge and connections through different media. Yet, growing public interest in biodiversity, habitat gardening, and climate resilience creates new audiences for the kind of knowledge the APS movement has accumulated, and many groups are actively reaching out to share that knowledge more broadly.

The ANPSA Biennial Conference, to be held in Mparntwe Alice Springs from 24-28 August 2026 (https://anpsa.org.au/anpsa-biennial-conference-and-seminar/), offers a vivid illustration of what this network looks like in practice. Hosted by APS South Australia in collaboration with APS Alice Springs, and with committees that include both dedicated enthusiasts and research scientists — among them AFF's own Professor Hans Griesser — it is precisely the kind of gathering where the 'why' of research meets the 'how' of cultivation. We encourage members of the AFF community to attend.

As we thank the state bodies, district groups, and individual members for their generous support, we invite the AFF community to see the APS movement for what it is: not simply a source of donations, but a collaborator with complementary strengths. The AFF provides the rigour and resources of funded scientific research. The APS network provides geographic reach, long-term observation, practical expertise, and an engaged community that helps sustain public commitment to Australian flora.

Together, the two movements ensure that Australia’s extraordinary botanical heritage is not only studied in the laboratory but observed, cultivated, and valued in every corner of the country.

From the observations of a gardener trialling a difficult grevillea to a researcher analysing seed viability in a laboratory, Australia's understanding of its native flora depends on an ongoing conversation between enthusiasts and scientists. The APS movement and the AFF are partners in that conversation, linking the field and the laboratory in a shared commitment to understanding and conserving Australia's extraordinary flora.

About the author

Heather Miles is the Secretary of the AFF and a longstanding member of Australian Plants Society NSW where she has held roles as director, president, secretary, and webmaster. In addition, she has a passion for photography with a focus on native plants and fauna (https://aff.org.au/wp-content/uploads/Heather-Miles-for-AFF-1.pdf). She can be contacted at secretary@aff.org.au. Heather gratefully acknowledges advice and input from Professor Hans Griesser and Paddy Lightfoot AOM, two fellow AFF committee members.

Remote and beautiful, Ormiston Pound, Northern Territory, as an example of the extent of landscapes that members can investigate (image from H Miles).

Article: Australia's Alpine Ash forests are now officially endangered. Can we save them?

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The tall Alpine Ash forest in Australia's high country have lived in a delicate relationship with fire for tens of thousands of years. Intensifying fire seasons are threatening this balance to the extent the Federal Government has just officially listed this forest as an endangered ecosystem. This means these forests face a high risk of collapse or extinction.

It is alarming that Alpine Ash forests are facing an existential threat. What does this mean, and what can we do to save them?

What is Alpine Ash?

Alpine Ash (*Eucalyptus delegatensis*) on the Australian mainland (there is a related species in Tasmania) is a tall species of eucalypt that covers over 350,000 hectares of high country across the Great Dividing Range, stretching from Canberra to east of Melbourne.

Alpine Ash can grow to 90 metres tall, and when dusted with snow it forms a stunning forest that provides shelter and habitat for a range of rare mammals, such as Leadbeater's possums and greater gliders.

It is also an important part of First Nations cultural landscapes – in north-east Victoria, the Taungurung people harvested Bogong moths (or Deberra) when the moths migrated to mountain forests where Alpine Ash is a key part of the landscape.

Alpine Ash is a "fire sensitive" eucalypt – but its relationship with fire is paradoxical. While mature trees die after intense fire, it also clears the way for a prolific flush of regeneration from fallen seeds. But these regenerating Alpine Ash trees won't produce their own seed for 20 years.

Another severe fire during this time – the Achilles heel of the species – kills the regenerating forest, with no seed to save it (Bowman et al., 2013). It can only be recovered by artificially sowing seeds, usually by aircraft (Fagg et al., 2013).

Eucalyptus delegatensis (Alpine Ash). Left: Tree form, towering up to 90 m (image from Krzysztof Ziarnek, https://www.parks.vic.gov.au/get-into-nature/conservation-and-science/our-amazing-diversity/the-alps/flora). Middle and left: details of flower and fruit (images from Tim Bawden, https://www.inaturalist.org/observations/337629519 and https://www.inaturalist.org/observations/337629519, CC-BY-NC).

This Goldilocks-like balance of fire has served Alpine Ash well until now. But the increased frequency of severe fire over the last 20 years – including the Black Summer fires – has raised such concern about its ecological health that it has now been listed as "endangered" under Australia's nature laws.

Why is Alpine Ash now endangered?

There are a range of factors the federal government uses to assess the status of an ecological community, those naturally occurring species that live together in the same habitat.

There has been a major decline in numbers of Alpine Ash trees because of extensive and severe bushfires over the past 20 years. During these, a third of all Alpine Ash forest burned more than once during their vulnerable immature regrowing phase. The frequent fires have severely affected these forests, which have lost tree cover, the usual rich mix of species and their ability to function (Fairman et al., 2016).

In the future, we predict Alpine Ash forests may decline by half within the next 60 years because of more-frequent fires, which will lead to regeneration failure (McColl-Gausden et al., 2021). To lose this much forest would be devastating for the landscape and the species that live there and release the carbon these forests store.


Left: Recently burnt Alpine Ash forest after high intensity fire resulting in complete removal of crown cover and trees were killed. Right: regeneration of *Eucalyptus* and *Acacia* from seed years after fire (images from T Bell).

Can we save Alpine Ash forests?

These predictions should prompt a substantial rethink of how we manage, protect and care for these forests. Firstly, we need to change what it means to "protect forests". Typically, mainstream forest protection focuses on stopping logging and creating national parks. In the case of Alpine Ash, these solutions have limited use.

Alpine Ash forests are already well represented in conservation reserves, with over half in existing national parks. And climate change and more frequent fires will occur inside national parks as well as outside them (Resco de Dios et al., 2025). Furthermore, logging is now banned in Victoria and the ACT and does not occur in the majority of Alpine Ash forests.

For Alpine Ash forests to flourish, we need creative and active management (Bennett et al., 2024), such as:

- Ambitious, long-term seed collection programs so that after severe repeat bushfires we are able to rapidly sow Alpine Ash and stop regeneration failure (Bassett et al., 2015). These programs can be costly but are a long-term insurance policy.
- Planned burns around important Alpine Ash forests to reduce future fires burning these forests severely (Collins et al., 2023).
- Ecologically informed thinning, which involves the selective removal of trees from a patch of forest. When done in young Alpine Ash stands it can speed up the growth of trees, and it has been shown that larger trees survive fire more often than smaller ones (Volkova et al., 2017).

But we must be realistic about how many Alpine Ash forests can be saved. Even with our best management, extensive areas of Alpine Ash will be lost (McColl-Gausden et al., 2022).

Accepting loss

We need to work out which forests can be saved and those that cannot. One approach which may help is the 'Resist-Accept-Direct' framework developed by the US National Parks Service.

This acknowledges our ecosystems will be severely stressed by climate change and change is unavoidable (Schuurman et al., 2022). It gives forest managers three options:

- Resist change by maintaining the current forest type (Lavorel et al., 2014). This could mean suppressing fire or resowing Alpine Ash after repeat fires
- Accept change and embrace new ecosystems that arise. This means not intervening after frequent disturbance, and monitoring what happens
- Direct change to a new type of ecosystem (Doherty et al., (2016). This approach – the most controversial – means in forests likely to be frequently burned, Alpine Ash is replaced with more fire-tolerant eucalypts

Working out which of these paths are suitable for Alpine Ash is a major task for land managers, researchers, and the community.

A clear warning

The listing of Alpine Ash as endangered is a clear warning to Australians. One of the most widespread types of forest in our high country is facing an existential threat.

Doing nothing is not an option. We need bold and innovative action to steward Alpine Ash forests through the next century, before it is too late.

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Final Report: Securing representative genetic diversity within seed collections of an Australian rainforest species severely impacted by Myrtle Rust

Jia-Yee Samantha Yap
Royal Botanic Gardens and Domain Trust, NSW

This project was funded in 2022 by AFF for research done in 2023-2025

Background

In this study, targeted breeding trials were done using *Rhodamnia rubescens* (Scrub Turpentine; Family Myrtaceae), a Critically Endangered rainforest species. Experiments were done using a subset of the living collection of this species at the Australian Botanic Garden, Mt Annan (ABG) and the resulting seedlings were subject to genetic screening. The genetic composition of seedlings was compared to seedlings produced by living plants (with open pollination) within the nursery and those by living plants within another nursery at the Boodeeree Botanic Garden (BBG).

This analysis aimed to assess whether a targeted breeding approach could generate seedlings that capture genetic diversity not represented in existing collections. Parentage of the seedlings produced through the breeding experiments was genetically verified. The second aim was to verify whether targeted hand crosses meet expectations that a Myrtle Rust (MR) resistant individual could be successfully crossed with a non-MR resistant individual regardless of source.

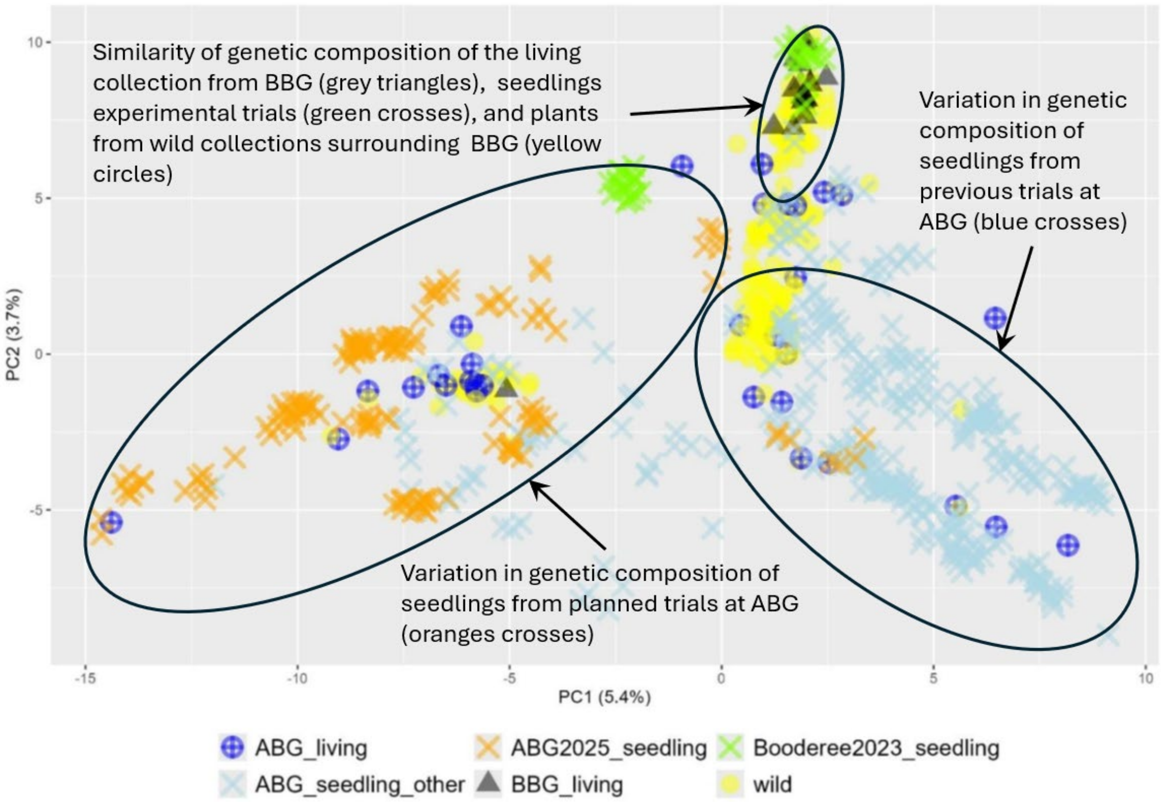
Additionally, an open pollination trial was conducted outside of the greenhouse and genetic screening of the resulting seedlings aimed to examine mating patterns. The seed production capacity resulting from open pollination and hand pollination trials were compared.

Contributions from Karen Somerville, Jason Bragg, Mel O’Donovan, Felix James, and members of the Botanic Gardens Sydney are acknowledged. Karen Somerville conducted hand pollination trials concurrently with trials done at the ABG nursery. Seedlings from both trials were genetically screened using the same method and her results are generously included in this report.

Key highlights

Unique genetic variation was determined for seedlings resulting from trials using both hand-pollination (n = 108) and open-pollination (n = 36) (see figure below). Using genetic data available for living parent plants and previously germinated seedlings, it was determined that the genetic composition of seedlings from targeted crosses between MR resistant and non-MR resistant individuals had not been found in previous seed batches. In comparison, living plants from BBG have a unique though more genetically limited collection due to the living plants being mostly sourced from nearby surroundings of the gardens.

Existing seedlings from the ABG collection spanned a wide genetic breadth representative of the open pollination occurring within the nursery. However, they did not encompass the genetic composition of the seedlings generated in this study (see figure below). Within the collection of living material from ABG, the combination of seedlings from this study and previous seedlings appear genetically representative of the living plants, highlighting the conservation value of the current seed collections.



Above: Principal Component Analysis describing genetic composition of living plants and seedlings of *Rhodamnia rubescens* used in this study, including wild (parent) plants (yellow circles), seedlings derived from pollination trials using living plants from the Australian Botanic Garden Mt Annan (ABG; orange and blue crosses) and Boodeeree Botanic Garden (BBG; green crosses) and living (parent) plants from ABG (dark blue circles) and BBG (grey triangles).

Open pollination trial showed individual mother plants mated with multiple fathers, with only a mother plant showing mating bias towards an adjacent plant. This indicates that mate choice is not constrained by geographic origin under nursery conditions, thereby simplifying the incorporation of resistance traits into otherwise non-resistant collections in future breeding programs.

Overall, a greater number of fruits were harvested from plants that were hand-pollinated compared to those that were open pollinated. For example, one plant produced 36 fruits from hand pollination compared to three fruits in the open pollination trial. In the open pollination trial, pots were placed adjacent to one other, allowing wind or insect-mediated pollination assuming generalist pollinators for Myrtaceae. These results suggest pollination limitation is present and should be considered when designing open breeding trials. To increase seed production, strategies such as bulk planting or implementing seed collections across multiple years should be considered.

Conclusion and recommendations

Using targeted breeding experiments, it was determined that *R. rubescens* from geographically and genetically different sources can successfully interbreed. This finding simplifies the incorporation of resistance to Myrtle Rust and genetic diversity into both plant collections and plantations, thereby supporting long-term population viability.

Depending on the intended use of the seed, hand pollination can be used to achieve targeted parentage, while open pollination allows a broader range of mating combinations when maximising genetic diversity in seed collection is the priority.

The results of this study substantiate that *R. rubescens* is a preferential outcrosser, with individual fruits often containing seeds sired by multiple fathers. Seed production is influenced by several factors, including occasional selfing and pollen limitation, both of which should be considered when designing breeding or collection strategies. Future work could quantify the number of seeds per fruit and rates of fruit abortion, to test for any differences in resource allocation to seeds and fruits produced by different fathers.

Seedlings produced in this study and those generated by Karen Sommerville were subjected to MR resistance assays as part of a broader study to assess the inheritance of resistance (results not included here). This approach aims to reduce the reliance on intensive genetic screening during nursery production, while enabling the development of planting stock that combines desired resistance traits with appropriate genetic diversity for future populations.

Left: Detail of leaf and flowers of *Rhodamnia rubescens* (Scrub Turpentine) (image from JK Douch, https://www.inaturalist.org/observations/318585378, CC BY-SA). Right: Seedlings of *R. rubescens* with high and low resistance to Myrtle Rust.

Final Report: Assessing genetic diversity, translocation success and future management options for the Critically Endangered *Grevillea acropogon*

Leonie Monks[1], Rachel Standish[2], Darcy St Jack[2], Rachel Binks[1]
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This project was funded in 2022 by AFF for research done in 2023-2024

Background

First discovered in 1993, the endangered species *Grevillea acropogon* was only known from two small wild locations separated by more than 50 km, when this study commenced. Recovery efforts to date have included protecting known populations, surveying for additional occurrences, banking seed in *ex situ* conservation, and establishing a translocated population in 2009 to support long-term species viability. This study aimed to support ongoing recovery efforts by investigating the population dynamics for *G. acropogon*, assessing the success of the previous translocation including seed sourcing strategy (single source population – Site 1), and determining the most useful source or sources of seed for future recovery actions.

The study, initially planned for one year across three sites (two wild – Site 1 and 2; one translocated – Site 3), was extended into a second year when a new wild population (Site 4) was discovered and added to the study. Demographic comparisons among study sites found height, crown width, and crown volume showed a pattern likely driven by time since fire. Assessment of reproductive output also showed variation among sites as well as between years. Viable soil seed banks were found at each of the three wild sites, that was similar or higher than that found during other studies of *Grevillea* species.

Genetic assessments showed the northern wild site (Site 2) was consistently highly divergent from the other sites. This result is also consistent with the different habitat type and morphological variation observed at Site 2. Consequently, during the study, a re-evaluation, by *Grevillea* expert Peter Olde, of *G. acropogon* specimens, led to the recognition of the northern population (Site 2) as a new species. This has subsequently been named as *Grevillea kulikup* and conservation listed as Priority 2 (Poorly Known) in Western Australia. The populations that remained in *G. acropogon* (Sites 1, 3 and 4) all appear to have maintained adequate genetic diversity.


Left: *Grevillea acropogon* flower (image from L Monks/DBCA). Right: *Grevillea kulikup* plant (image from A Crawford).

The translocated population showed similar plant size to the two wild reference sites (Sites 1 and 4), and although reproductive traits varied, it produced substantially more viable seed per square metre than its source population, suggesting adequate seed production. Genetic diversity in the translocation was similar to that of the source site, demonstrating that the original seed collection effectively captured the genetic variation of the population. Overall, the demographic, reproductive, and genetic results suggest that the translocation is performing comparably to the wild populations and is successfully on track to a viable population.

Finally, seedlings generated as part of this study for viability and molecular assessments were used to increase the number of plants in the wild. Seedlings from Sites 1 and 3 were used to augment original translocation (Site 3), with seedlings from Site 2 planted back at their original site thereby actively supporting the conservation of the two species.

Progress Report: Identifying and conserving critical seed sources for climate ready restoration of Tasmania's eucalypt flora

Magali Wright
Landscape Recovery Foundation, TAS

This project was funded in 2023 by AFF for research being done in 2024-2026

Background

Climates are rapidly changing and understanding whether plant species can respond to these changes remains of increasing importance. Climate is a primary driver of adaptive evolution and regulates key life-history traits such as seed germination. A major concern is that shifts in climate may disrupt the environmental cues required for successful regeneration, limiting the capacity of populations to persist under future conditions.

This project aims to:

- Examine the sensitivity and flexibility of the thermal germination niche to evaluate the regenerative capacity of the alpine white gums to future climates
- Develop a spatially explicit modelling framework to identify and guide the collection of seed sources critical for the future survival of a species gene pool

Modelling revision

The revised modelling approach maintains consistency with the initial model design and objectives, while incorporating minor methodological improvements and the addition of a field validation step. This validation component is intended to ground-truth model outputs against observed conditions and improve confidence in the identification of critical seed sources under changing climatic conditions.

Additional inputs incorporated into the modelling framework include:

- Population health assessment data collected across target populations
- Field observations of seed production and reproductive output
- Spatial and climatic exposure variables relevant to regeneration

These enhancements support a more integrated assessment of population condition and regenerative capacity. The inclusion of field-derived data provides an empirical basis to validate model predictions, improving the ability of the model to identify populations at risk of reduced regeneration and refine prioritisation of seed collection for *ex situ* conservation.

To further strengthen the climate modelling component, the project team is currently exploring a potential collaboration with the Bureau of Meteorology. This partnership is intended to enhance the rigour and regional relevance of the climate inputs used within the modelling framework. Engagement with the Bureau of Meteorology will also support the development of outputs that are accessible and usable for conservation practitioners in Tasmania, facilitating improved decision-making for seed sourcing and ecological restoration under future climate scenarios.

Overall, the revised modelling approach remains aligned with the original modelling framework, while improving robustness, transparency, and confidence in outputs through the incorporation of field validation and strengthened climate data inputs.

Seed collection

Seed collections were undertaken across a range of populations of Alpine White Gum to support both conservation outcomes and the germination experiments. A total of 22 sites were visited, with successful collections completed at 10 sites.

Collections targeted multiple species, including *Eucalyptus gunnii*, *E*. *cordata*, *E*. *urnigera* and *E*. *archeri*, across a broad geographic and elevational range (150-1,200 m). Emphasis was placed on sampling populations from both low and high elevations within distributions for each species. This approach is designed to support germination experiments investigating variation in seed traits and adaptive responses across elevation gradients.

All collections followed established protocols, with seed collected from multiple trees where possible and processed for long-term storage. These collections have contributed to expanding the representation of populations of Alpine White Gum in the seedbank while also providing a structured dataset for experimental analysis of germination responses.

Seed production and tree health

Across multiple populations, seed production was low, with small numbers of capsules present and low seed counts per capsule. General observations were:

- Seed production per capsule was typically between 2-4 seeds
- Many capsules contained no seed
- Capsule loads were generally low across populations

These observations indicate that substantial quantities of capsules are required to obtain adequate seed numbers for long-term storage (>20,000 seeds), consistent with seed banking guidelines. It also indicates that the presence of capsules alone is not always a good indicator of reproductive load. Overall, observations suggest that current environmental conditions are limiting seed production in populations of Alpine White Gum, with implications for both natural regeneration and seed collection efforts.

Above: Members of the field team collecting seed.

Transect-based sampling was used to ensure consistent and unbiased assessment of population health across sites, with tree attributes recorded at regular intervals including:

- Canopy condition and foliage cover
- Tree size class distribution
- Evidence of epicormic and lignotuber regrowth
- Reproductive load (buds and capsules)
- Presence of threats and browsing

Across sites, population condition was variable. Several populations showed signs of stress, including reduced canopy health and low reproductive output. In some cases, healthier individuals were associated with local environmental variation (e.g. wetter microsites).

These assessments provide a key dataset for identifying populations experiencing decline and for validating modelling outputs.

Outlook

Year 2 of the project has successfully progressed core field components, including seed collection and population health assessment, in line with project objectives.

Key outputs and outcomes include:

- Expanded seed collections across priority populations of Alpine White Gum
- Implementation of a consistent population health assessment methodology
- Identification of low seed production as a widespread constraint
- Redevelopment of the modelling framework supported by external funding

The capacity of the project has been strengthened to identify critical seed sources and support the conservation of Alpine White Gum in Tasmania under changing climatic conditions.

Left and middle: Seed collection of *Eucalyptus urnigera* (Urn Gum) at Mt Wellington. Right: typical capsule morphology of Urn Gum.

Progress Report: Preserve and conserve – conservation of *Grevillea micrantha* and *Grevillea gariwerdensis*

Tara Hopley, Laura Simmons, Russell Larke
Royal Botanic Gardens Victoria

This project was funded in 2023 by AFF for research being done in 2024-2026

Background

Grevillea micrantha and *G. gariwerdensis* are two Victorian endemic species which have highly restricted distributions. *Grevillea micrantha* is a critically endangered species that occurs only in six locations in small populations across central and western Victoria. *Grevillea gariwerdensis* is even more restricted occurring at only three disjunct locations within the Grampians region. Currently, populations of both species are in a state of decline, with reductions in the number of individuals, number of mature individuals and amount of recruitment over the last 20 years and, in some cases, possible local extinction.

Left: Habitat of *Grevillea gariwerdensis* and right: *G. micrantha*.

Current threats to populations include grazing (exotic and native fauna), competition from exotic weed species, climate change (especially reduced rainfall) and increased fire frequency and intensity. Without immediate conservation actions, both species will continue to decline and may lead to additional local extinctions, and in the case of *G. gariwerdensis*, the possibility of extinction.

This project applies an integrated approach to conservation, by using genetic analysis of remnant populations to inform both on-ground management of remnant populations and establishment of genetically representative *ex situ* collections for each species. Understanding the structure of genetic diversity across the landscape is vital for maximising the long-term success of natural regeneration and guiding assisted restoration. Genetic erosion can be minimised by applying conservation management actions that retain or restore plant populations. Such preservation of genetic diversity in situ is important for maximising evolutionary resilience to environmental stressors such as climate change. This research will also inform germplasm collections to ensure a cultivated *ex situ* population and seed bank is established that represents available genetic diversity.

Seed collection

Field surveys across southwestern Victoria in November 2025 assessed flowering and seed development for both species. Although flowering and immature capsules were present at several sites, capsules were not sufficiently developed for harvest, and seed collections were scheduled for

December 2025. Two sites were not visited due to recent fires in early 2025.

Seed production varied considerably across sites. Populations of *G. micrantha* yielded from 165 to 1,170 capsules; populations of *G. gariwerdensis* yielded from 48 to 524 capsules.

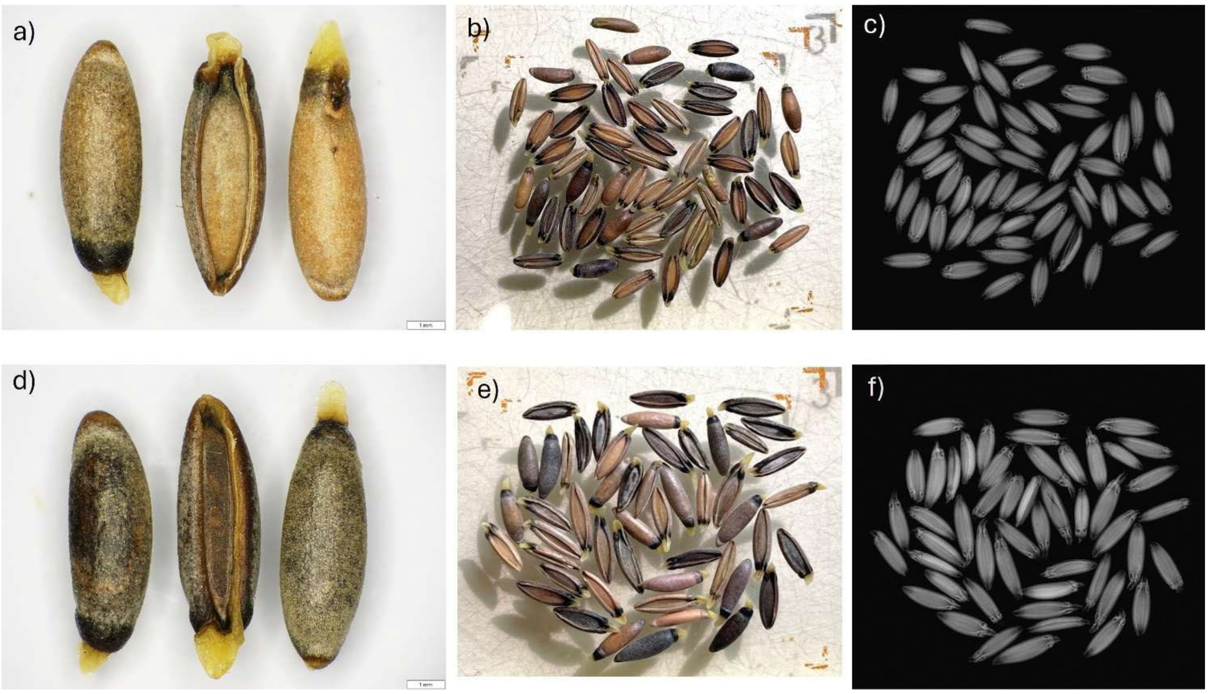
A sample of 60 seed from each of the four largest collections was x-rayed to estimate fill rates as a proxy for viability. Results indicated that the proportion of filled seed was high across all collections. Seed colour was not a predictor of seed fill as both lighter and darker seed were shown to be filled.



Left: Flowers of *Grevillea gariwerdensis* and right: *G. micrantha*.

Outlook

Progress during Year 2 has focused on seed collections and continued genetic analysis to characterise the two species. The next steps of the project involve detailed phylogenetic and population genetic analyses including investigation of the extent of clonality in populations and to better understand the *G. gariwerdensis*-*G. micrantha* species boundary.



Top row: Detail of seed of *Grevillea gariwerdensis* and bottom row: *G. micrantha*. Left and middle: shape and colour of seed and right: x-ray images showing seed fill rates.

What research were we funding 25 years ago?

Note: See http://aff.org.au/results/grant-summaries/ for further details of these and other research projects funded by the AFF.

Grant 1: Is the rarity of species in the *Banksia* genus associated with highly specialised nutrient acquisition mechanisms?

Reported as: Root exudates of *Banksia* species from different habitats – a genus-wide comparison

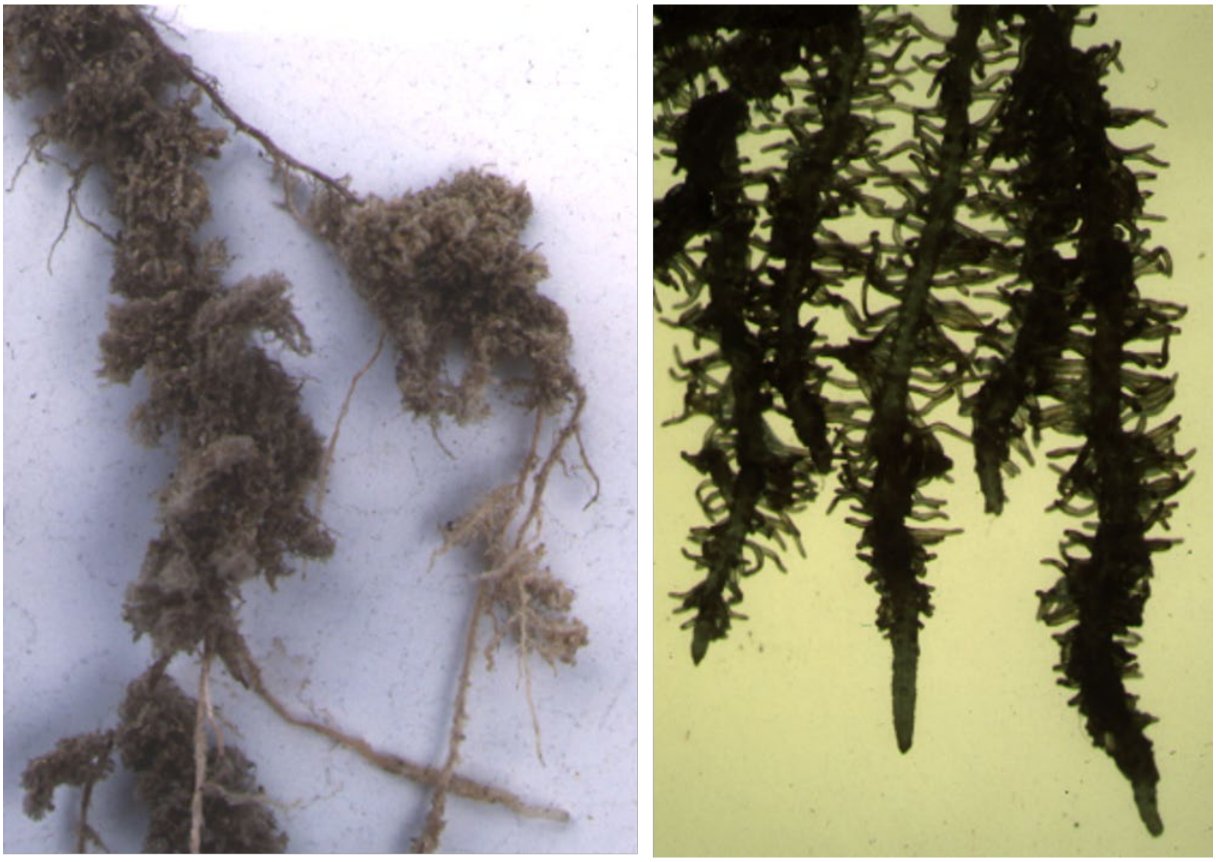
This information has been taken from a Final Report submitted to the AFF

Hans Lambers, Erik Veneklaas and Greg Cawthray
School of Plant Biology, University of Western Australia, WA

The project was funded in 2000 for $6,500.

Background

The genus *Banksia* is a uniquely Australian plant group. Banksias dominate the physiognomy and ecology of several Australian plant communities. Flowers and fruits of several species are successful export products. The physiology of nutrient uptake is of great importance for this genus, particularly since the soils on which banksias occur are extremely low in nutrients. All banksias possess proteoid (cluster) roots that exude a range of carboxylates into the rhizosphere. Carboxylates act to enhance the availability of nutrients, particularly phosphorus, but the efficiency of different carboxylates varies with soil type.



Left: Unwashed clumps of proteoid roots from *Banksia*. Right: axis of parent root bearing many fine rootlets (images from T Bell).

Summary

This study examined the hypothesis that *Banksia* species with different soil preferences differ in the amount and composition of rhizosphere carboxylates.

When grown in a standardised substrate, the 57 *Banksia* species studied exude generally similar carboxylates into their rhizosphere, predominantly citrate. We found no evidence for phylogenetically determined differences, or correlations with species' soil preferences. This may indicate that the conditions in the topsoil and litter layer in all *Banksia* habitats are sufficiently similar for these carboxylates to be effective. Alternatively, species differences were not expressed in the single substrate that was used. Ongoing research explores the ability of banksias to adjust exudation patterns to contrasting soils, and the impact on growth and nutrient uptake.

Further research

This funding opportunity led to a multitude of additional research publications exploring the importance of exudates and soil conditions in nutrient uptake in banksias and other species in the Proteaceae from Western Australia. Recent publications include:

Hayes PE, Clode PL, Lambers H (2024) Calcifuge and soil-indifferent Proteaceae from south-western Australia: novel strategies in a calcareous habitat. *Plant and Soil* 496, 95-122.

Shen Q, Ranathunge K, Lambers H, Finnegan PM (2024) *Adenanthos* species (Proteaceae) in phosphorus-impoverished environments use a variety of phosphorus-acquisition strategies and achieve high-phosphorus-use efficiency. *Annals of Botany* 133, 483-494.

Shi JM, Strack D, Albornoz FE, Han ZM, Lambers H (2020) Differences in investment and functioning of cluster roots account for different distributions of *Banksia attenuata* and *B. sessilis*, with contrasting life history. *Plant and Soil* 447, 85-98.

Zhong H, Zhou J, Azmi A, Arruda AJ, Doolette AL, Smernik RJ, Lambers H (2021) *Xylomelum occidentale* (Proteaceae) accesses relatively mobile soil organic phosphorus without releasing carboxylates. *Journal of Ecology* 109, 246-259.

The project also formed the basis for seminal work used to explain phosphorus uptake and plant distribution patterns in Australia and worldwide:

Lambers H (2022) Phosphorus acquisition and utilization in plants. *Annual Review Plant Biology* 73, 17-42.

Luo X, Guo C, He X et al. (2025) Global distribution and influencing factors of plant-available phosphorus in (semi-)natural soils. *Global Biogeochemical Cycles* 39, e2025GB008513.

Prodhan M, Finnegan P, Lambers H (2018) How does evolution in phosphorus-impoverished landscapes impact plant nitrogen and sulfur assimilation? *Trends in Plant Science* 24, 69-82.

Tang D, Yan L, Fisher JL et al. (2025) Why are some invasive plant species so successful in nutrient-impoverished habitats in south-western Australia: A perspective based on their phosphorus-acquisition strategies. *Functional Ecology* 39, 635-652.

Grant 2: *Boronia* – survival or death in warmer climates – what you can’t see is what is important

Reported as: *Phytophthora* species associated with root and crown rots of *Boronia* in cut-flower production

This information has been taken from a Final Report submitted to the AFF

Jonathan Lidbetter
Gosford Research Station, NSW Agriculture, NSW

The project was funded in 2000 for $16,776.

Background

At the time of funding, *Boronia heterophylla* and related hybrids were cultivated in south-eastern NSW for the export cut-flower market. Severe losses were experienced during the previous 5-year cropping period, particularly after the first pick of flowers. Wilting and rapid death of plants were the most common symptoms associated with losses.

This project investigated the reason growers were suffering severe plant losses. *Phytophthora drechsleri* has previously been recorded from *B. megastigma* (Hardy & Sivasithamparam 1988), but there had been no detailed reports on the diseases of *Boronia* cultivars growing elsewhere. However, extensive research in Tasmania had been done to determine the pathogenicity of *P. cinnamomi* in native heathland (Podger 1989; Podger et al., 1990a, b).

Summary

Surveys done on properties growing cultivars of *B. heterophylla* and *B. clavata* included sampling of wilted and healthy plants. Whole plants were dug out with as much soil adhering to roots as possible. Plants were clinically examined and root lesions were washed in sterile water and plated to a range of culture media. Plates were incubated at 22°C and colony development was observed by light microscopy for 7 days. Sub-cultures of colonies were further characterised by morphological taxonomy using IT-PCR and restriction enzyme digest analysis.

Left: *Boronia heterophylla* cv 'Pink Lipstick' (image from https://www.gardensonline.com.au/GardenShed/PlantFinder/Show_1652.aspx). Right: *Boronia clavata* (image from https://triggplants.com.au/product/boronia-clavata-in-50mm-forestry-tube/).

Three species of *Phytophthora* were consistently associated with field losses – *P. cinnamomi*, *P. cryptogea* and *P. drechslera*. Other potential pathogens were less commonly isolated – *Pythium irregulare*, *Pythium* sp., and root knot nematodes (*Meloidogyne* spp.). These pathogens often occurred in conjunction with one or more of the *Phytophthora* species.

Greenhouse assays confirmed pathogenicity of the three species of *Phytophthora* to *B. heterophylla*. *Phytophthora cryptogea* was the most aggressive species causing 100% mortality when inoculated via the lower stem. Despite lower mortality caused by *P. cryptogea* when applied to roots (40%), plants were clearly infected since they displayed necrotic root lesions and vascular browning in stem tissue.

Further research

Since this research was done, three species of *Boronia* (*B. gunnii* (Gunn's Boronia), *B. hemichiton* (Mt Arthur Boronia) and *B. hippopala* (Velvet Boronia)) and another species from the same family (Rutaceae; *Philotheca freyciana*) — are now listed on the *Tasmanian Threatened Species Protection Act* 1995 and the *Commonwealth Environment Protection and Biodiversity Conservation Act* 1999 (EPBC). The EPBC listing advice for each species cited infection by *P. cinnamomi* as a potential threat (Rudman et al., 2008). Recognition of the potential threat of *P. cinnamomi* to each of the four species was considered a necessary precaution given the known susceptibility of other species in the family Rutaceae and the distribution of the species within the climatic domain of the pathogen (Podger et al. 1990a).


Left: *Boronia imlayensis* (image from Peter Woodard ©The Royal Botanic Gardens & Domain Trust https://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Boronia~imlayensis). Right: *Boronia fastigiata* (Bushy Boronia) (image from T Hammer, some rights reserved (CC BY), https://www.inaturalist.org/photos/118910822).

Boronia imlayensis was recently listed as Critically Endangered under the EPBG Act and the *Biodiversity Conservation Act* 2016 (NSW) with susceptibility to infection by *Phytophthora* cited as a potential threat (https://threatenedspecies.bionet.nsw.gov.au/profile?id=20487). Populations of *B. fastigiata* (Bushy Boronia) found in Jarrah forest in

Western Australia are also suspected to be affected by *P. cinnamomi* (McDougall et al., 2001).

Research is ongoing. The control of the spread of *Phytophthora* is discussed in three recent publications collating the efficacy of phosphite on the control of *Phytophthora* on native Australian species (Wan et al., 2019; Burgess et al., 2021; Boulle et al., 2023; McDougall & Liew 2024, 2025).

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About the Australian Flora Foundation

The Australian Flora Foundation is a not-for-profit charity dedicated to fostering scientific research into Australia's flora. It is totally independent. All members of the Council and the Scientific Committee give their time freely as volunteers.

Each year the Foundation provides funding for a number of grants for research into the biology and cultivation of the Australian flora. They are often vital in enabling such projects to be undertaken. Many of the researchers are honours or postgraduate students, and their success with an Australian Flora Foundation grant hopefully stimulates their interest in researching Australia's unique and diverse plants throughout their careers.

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