

Safeguarding Australia's Flora

through a national network of native plant seed banks





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Abbreviations

Australian National Botanic Gardens (ANBG)

Brisbane Botanic Gardens (BBG)

Botanic Gardens of South Australia (BGSA)

Botanic Gardens and Parks Authority (BGPA)

George Brown Darwin Botanic Gardens (GBDBG)

Royal Botanic Gardens and Domain Trust (RBGDT)

Royal Botanic Gardens, Kew (RBG Kew)

Royal Botanic Gardens Victoria (RBGV)

Royal Tasmanian Botanical Gardens (RTBG)

The Council of Heads of Australian Botanic Gardens

Incorporated (CHABG Inc.)

Threatened Flora Seed Centre (TFSC), Department of Parks and Wildlife (DPaW)

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LETTER FROM THE CHAIR

In September 2015, world leaders at the United Nations summit adopted the 2030 Agenda for Sustainable Development to tackle the key challenges facing humanity today.

To successfully implement this agenda for sustainable development, we need a strong global commitment to the conservation of biological diversity. The importance of the plant conservation work of The Council of Heads of Australian Botanic Gardens Inc., through the Australian Seed Bank Partnership, was highlighted during a recent meeting in the United States of the Global Partnership for Plant Conservation. At the end of 2015, seed from 35,386 species had been collected as part of Kew's Millennium Seed Bank Partnership efforts to bank 25 per cent of the world's flora, and our Australian Partners have contributed around 18 per cent of these collections. We now have around 35 per cent of our legislatively threatened plant taxa held in conservation seed bank collections—a substantial increase from the 25 per cent of threatened flora we reported as banked in 2014.



Scientific research using the collections has increased our understanding of Australia's flora, and is critically important to the successful recovery of threatened species and in landscape restoration. The Partnership's National Seed Science Forum in March 2016 brought together researchers, academics, curators, students, practitioners, business leaders and industry professionals from nine countries. Unusually, the Forum programme integrated research on native and agricultural seeds, allowing those working in the conservation, restoration and agricultural sectors to benefit from learning about the different technologies and approaches being used by each sector. We see this as a start to building bridges between the conservation and agricultural sectors, and paving the way for some powerful future collaborations.

Our alliance with the Society for Ecological Restoration Australasia saw the launch at our National Seed Science Forum of the world's first set of standards for restoration practice. The preparation of these standards brought together Australia's vast expertise in restoration and conservation, and highlighted the importance that diverse partnerships play in achieving quality and long-lasting conservation. This collaborative model will form the basis of our future efforts to develop a national seed strategy, partnering with the Australian Network for Plant Conservation and many others.

We continue to have an active role in the Australian myrtle rust network, contributing significantly to the development of a national action plan for myrtle rust. As part of our role in safeguarding Australia's flora, we place priority on banking seeds of those species susceptible to myrtle rust. Our collections will be used to re-establish populations where we have seen localised extinction or an uncertain future.

I would like to thank our Partners, Associates, supporters and volunteers for their significant contribution to the Australian Seed Bank Partnership. Your support is essential to our work, and we invite you to continue to support our mission to conserve Australia's plant diversity through collaborative seed banking, research and knowledge sharing.

I took up the position of Chair in November 2015 and was excited by the opportunity this role gives me to provide leadership for the Australian Seed Bank Partnership. Along with my colleagues who head the major botanic gardens in Australia, I look forward to the Council continuing to grow this essential conservation partnership.

Professor Tim Entwisle

Chair CHABG Inc.



LETTER FROM THE NATIONAL COORDINATOR

What a great year for the Australian Seed Bank Partnership. We organised the first national gathering on seed science since 2009—the National Seed Science Forum—and there was no better place to hold this meeting than the world-class scientific facilities at the Australian PlantBank at the Australian Botanic Garden, Mount Annan. We are very grateful to the Royal Botanic Gardens Sydney for hosting this event as part of their 200th birthday celebrations. We also acknowledge the Australian Grains Genebank and the Australian Network for Plant Conservation for all their hard work in helping us to organise this Forum. We look forward to continuing our work together to build a bridge between conservation seed banking and agricultural gene banking, to strengthen our efforts in plant conservation and food security.



Our international keynote speaker, Dr Christina Walters from the United States, brought a new understanding of seed bank technologies to the Forum, and highlighted the impact of these technologies on the curation and banking of seeds for conservation and agriculture. Christina's visit was kindly supported by the lan Potter Foundation.

Our collaborations with the Royal Botanic Gardens, Kew, through the Millennium Seed Bank Partnership, continue to make important contributions to global plant conservation efforts. This year our Partners undertook fieldwork across 32 biogeographic regions in Australia and contributed collections of 302 taxa to seed banks for future use. Our target of adding 1000 species new to seed banks is within sight; our priority in Australia now is to build provenance collections of the banked species in order to have resources that will help improve and maintain the health of restored vegetation and aid its long term persistence.

Plant biosecurity issues and their impact on our native plant communities and associated fauna continue to concern us. We have been advocating for focused research on myrtle rust (*Puccinia psidii*), for greater monitoring and coordinated communication around its impact in natural areas, and for collaboration among experts to guide our next steps to safeguard susceptible species. We are part of a strong consortium of organisations working for a national action plan for myrtle rust.

We have received tremendous support this year, and I sincerely thank our funders whose significant resources have enabled us to share scientific knowledge, to build capacity and networks of early career researchers and practitioners, and to stimulate new collaborations. This support has also allowed us to continue to build *ex situ* collections as a resource to help safeguard and better understand Australia's flora. Our work would not be possible without our dedicated Partners, the National Steering Committee, members of The Council of Heads of Australian Botanic Gardens Inc., and our Associates. We continue to be supported by dedicated community volunteers, who are wonderful champions for the work we do; we thank them for their commitment, passion and valuable time.

I hope you enjoy this overview of our 2015–16 achievements.

Dr Lucy A. Sutherland

National Coordinator

PROFILES OF OUR PEOPLE

Brook Clinton, Research Technician, Australian National Botanic Gardens

I'm a rather recent devotee to seed biology, having been employed at the National Seed Bank at the Australian National Botanic Gardens in December 2015 as a research technician helping to digitise the collections.



I have a background in biological research that has been very broad and varied, covering aspects of molecular biology and biochemistry, touching on agricultural applications, and veering into microbial ecology and even medical science! If there is one thing that this has taught me, it is how interconnected everything really is. Along the way, I have always enjoyed laboratory work and microscopy specifically. Hours can be pleasantly spent looking down a microscope. It's easy to lose a sense of time, place and self when you are focused on the extra-fine details of biological wonders.

In my current job, I can't spend too much time pondering the secrets held in a single seed since the aim is to document 1000 species of Australian seeds! Luckily we have a whiz-bang microscope and associated software that enables me to carry out digital imaging with focus plane stacking. In this way I can quite speedily obtain high-resolution images of Australian seeds, many of which have never been imaged before. Creating these new sources of biological data and information is what really makes my job worthwhile.

In my previous work I relied heavily on biological databases to provide clues to underlying biodiversity that could help inform functional relationships. Often though, it was apparent that the information in the database only covered a small proportion of the 'real diversity', and this affected any conclusions that could be drawn. Therefore, I'm very pleased to be plugging away at documenting some of the diversity of our beautiful native plants and the characters of their seed biology. In myriad small ways, this is sure to help conservation studies, the understanding of our native ecology and much more. I feel privileged to have such a fun

job, and look forward to future opportunities for applying all of the fascinating seed biology that I am rapidly learning.

In my spare time I prefer to be out exploring the bush—living in Canberra is great for this. Visiting botanic gardens all over the world is another hobby that I'm keen to develop!

Gavin Phillips, Seedbank Assistant, Australian PlantBank, Botanic Gardens and Centennial Parklands

I've always felt at home in the bush, having spent a lot of my childhood on my grandparents' property in central west NSW and travelling around Australia with my family, exploring our unique environment. After leaving school, I developed an addiction to rock climbing, and travelled widely doing so—an activity that only served to fuel my curiosity about the natural world even more. This led me to study conservation and land management at Goulburn TAFE, where I discovered a passion for identifying flora and collecting seed for revegetation, with a particular interest in the trees that dominate our landscape—the Eucalypts.

I'm still a relative newcomer to the conservation field though, having started as a Horticulturist at the Australian Botanic Garden, Mount Annan, in early 2015. I keenly accepted an opportunity to join the PlantBank team as the



seed collector before the 2015–16 season, and am now responsible for the NSW state-wide collecting programme.

Our work is currently focused on conservation collections of threatened species, as well as on Australian Seed Bank Partnership projects and collections for research and revegetation programmes at a state and local level.

I love contributing to the ongoing conservation of our species by using my skills to find and collect seeds—highlights include the collections of the critically endangered *Banksia vincentia* and *Genoplesium plumosum*—and I continue to learn and gain great satisfaction from this very important work.

Denzel Murfet, Volunteer, South Australian Seed Conservation Centre, Botanic Gardens of South Australia

During the early 1980s, my interest in Australian plants grew from having no more than a casual interest to collecting for the State Herbarium of South Australia during 1986. I prepared plant lists of the local conservation parks and sent in specimens of the species I didn't know. I was then invited to do vegetation surveys as part of a Biological Survey of South Australia being run by the then Department of Environment and Planning. The surveys I attended ran from 1990 to 2005, and I took time off my normal work as a Telstra technician to volunteer on these surveys.

I have contributed to several books, including *Plants of the Adelaide Hills and Plains*. I have supplied photographs for *Wildflowers of the Mount Lofty Ranges; Acacias of South Australia; Carnivorous Plants of Australia*, volume 3; and

Carnivorous Plants of Australia Magnus Opus. I also co-authored the chapter on vegetation in the Natural History of Strathalbyn & Goolwa Districts, and provided 100 plant photographs for that chapter.



The South Australian Seed Conservation Centre was established by the Botanic Gardens of South Australia in 2002. Later I was approached by Dan Duval, an experienced plant collector, asking about some of my plant collections to help with locations. During 2007 I was invited to go on one of their seed collecting trips to the north-east of South Australia. Since then I have done several more trips including one significant trip to The Lake Eyre Basin including Cordillo Downs after a heavy rain event, and another to the Mamungari Conservation Park in the Great Victorian Desert. In December I went to Kangaroo Island to help collect for the Australian Seed Bank Partnership's 1000 Species Project. I am now contributing images to their web site, Seeds of South Australia (http://www.saseedbank.com.au/).

Jason Halford, Botanic Senior Officer, Brisbane Botanic Gardens

For as long as I can remember, I've had a fascination with the natural world, observing everything from minute specimens to interactions within the broader landscape. Maintaining a backyard nursery of local native species in my teen years led into working in bush regeneration in my early twenties, while my earlier work in construction and my



love of the bush got me into Park Ranger work in the Cairns area and on Fitzroy Island. These roles enabled me to see and work in some amazing landscapes and to meet some incredible people working in conservation and protected area management.

In 2006 I began working on the Seeds for Life project (the Millennium Seed Bank's Queensland partner) at the Brisbane Botanic Gardens, Mt Coot-tha. I have been the main project officer and the collecting programme coordinator on this project since 2008. Currently, I am the Senior Botanic Officer and acting Seed Bank Manager at the Brisbane Botanic Gardens, Mt Coot-tha. I'm also based at the Queensland Herbarium as a Senior Ecologist; I mostly carry out spatial analysis of state-wide land-use, and investigate opportunities for carbon farming and climate change mitigation, but have also done rare plant and wetland flora surveys, and currently co-curate a bunch of plant families. I also maintain a keen interest in the family Pandanaceae and the flora of the Pacific Islands, as well as pollination and reproductive biology and the ecology of threatened species.

My first year in the Seeds for Life project was a time when most of Queensland was in the grips of severe drought. It was during this period that we realised the value of collecting in the Wet Tropics and Cape York bioregions due to the high levels of biodiversity and endemic species in these two areas. While these bioregions are still a major focus of our collecting programme, we are now concentrating much of our effort on species threatened by climate change, such as those that occur in montane and coastal areas. We also focus state-wide on species that occur in highly fragmented, threatened ecosystems, as well as those species that are rare and threatened or susceptible to diseases such as myrtle rust.

I love getting out into remote and interesting locations, and I love the challenge of locating populations of rare and threatened plant species, knowing that the work I do contributes to the long-term survival of these species. I feel privileged to have had the experiences this role has given me.

WHO WF ARE

The Australian Seed Bank Partnership is a national collaboration of nine conservation seed banks and three flora-focused organisations. The Partnership bridges the gap between policy-makers, researchers and the conservation and restoration sectors to help safeguard Australia's plant populations and communities.

Seed banking is the principal tool for the safe and efficient storage of wild plant genetic material; a sound understanding of seed harvest, storage and germination requirements is crucial to combating the global decline of plant diversity. Together these seed collections and the understanding of seed technology underpin efforts to protect and restore natural ecosystems. Our Partners provide resources and a knowledge base to support the management of plant species and communities, and our work offers an insurance policy against further loss.

Our nationally cooperative initiatives focus on seed banking, research, knowledge sharing and capacity building. We follow internationally recognised protocols for collecting and storing the seed of Australian native plants.



Australia's changing climate presents new challenges for conservation seed banks in terms of planning remote fieldwork around timing of seed maturity and seed production. The element of unpredictability requires an adaptive management approach during field trips to ensure that seeds still get collected and that efforts focus on safeguarding Australia's flora. This would not be possible without the extensive botanical expertise of our Partners, who need to realign collecting targets in response to field conditions. (Photo: Collecting *Eremophila spinescens* in the Gascoyne region of Western Australia, Luke Sweedman, BGPA)

We record environmental data crucial to our role in plant conservation. Our research is vital in establishing germination protocols and in building the knowledge base to help practitioners restore plant communities throughout Australia's diverse landscapes. Our Partners have already discovered new species, found previously unknown populations of species, and rediscovered species thought to be extinct. We share our knowledge and skills to make the most effective use of resources, to manage risk, and to develop and use regional expertise.



The National Seed Science Forum brought people together to consider how seed science is assisting landscape restoration. Dr Peter Cuneo guides delegates through The Australian Botanic Garden with its natural remnants of Cumberland Plain Woodland vegetation. These remnants are being managed for their long-term protection and, since 1988, scientists from the Royal Botanic Gardens & Domain Trust have been studying the ecology and monitoring changes in the remnant vegetation. (Photo: Adam Huttner-Koros, ASBP)

Our Vision

A future where Australia's native plant diversity is valued, understood and conserved for the benefit of all.

Our Mission

A national effort to conserve Australia's native plant diversity through collaborative and sustainable seed collecting, banking, research and knowledge sharing.



AUSTRALIAN SEED BANK PARTNERSHIP HIGHLIGHTS FOR 2015–16

The National Seed Science Forum saw 145 delegates from nine countries come together to share the latest research and ideas, to discuss issues being faced by industry that could be addressed through science, and to form collaborations to advance future conservation, agricultural and restoration efforts. This Forum showcased Australia's leading work in seed science, and enabled us to commence breaking barriers in seed science between the conservation and agricultural sectors. This Forum was an outcome of our ongoing collaborations with the Australian Grains Genebank.

Our alliance with the Society for Ecological Restoration Australasia saw the Threatened Species Commissioner, Gregory Andrews, launch the *National Standards for the Practice of Ecological Restoration in Australia* during the Partnership's National Seed Science Forum. These standards are based on the best available science and are an important resource for those working to protect, conserve and rehabilitate Australia's natural environment.



Dr Geoff Pegg, Forest Pathologist for the Queensland Department of Agriculture and Fisheries, guides a group of stakeholders from around Australia at the Myrtle Rust (MR) planning workshop held at Brisbane Botanic Gardens in April 2016. Brisbane Botanic Gardens has a MR incursion, and Dr Pegg illustrated how native species are responding to its effects. The workshop was held to map out research priorities and priority actions for Australia to manage the biosecurity risk that MR poses. (Photo: Lucy Sutherland, ASBP)



Threatened Species Commissioner Gregory Andrews and Dr Peter Cuneo from The Australian Botanic Garden Mount Annan at the launch of the National Standards. (Photo: Virginia Bear)

We continue to take important steps towards achieving our seed banking targets for the first phase of the 1000 Species Project by adding new species to Australia's conservation seed banks.

This year our Partners made collections in 32 biogeographic regions with Fieldwork Funds support from the Millennium Seed Bank Partnership of the Royal Botanic Gardens, Kew (hereinafter referred to as 'Kew Gardens'). A total of 569 collections covered 183 taxa (172 species); 37.7 per cent of these taxa are threatened and listed under national or state/territory legislation. In addition, collections were made from a further 17 taxa listed as 'taxa of concern'.

As part of our four-year collaboration on the Global Trees Programme with Kew Gardens, supported by the Garfield Weston Foundation, we made 130 collections of 119 taxa; 6 taxa are legislatively listed as threatened and 9 are 'taxa of concern'.

We participated in a national multi-agency workshop to develop an overarching strategy identifying key research and non-research actions to deal with the impact of myrtle rust, enabling development of an effective focused management process and response. We will now be part of a working group to help drive myrtle rust research and policy development.

GOALS AND ACHIEVEMENTS

The Australian Seed Bank Partnership's national programme to conserve Australia's native plant diversity focuses on five goals. Each has identified strategies, actions, priorities and outcomes under the Partnership's business plan, which guides our work. These outcomes allow us to maintain focus and to ensure our work is relevant to our vision of 'a future where Australia's native plant diversity is valued, understood and conserved for the benefit of all'.

Our five goals are:

- 1. Collecting and storing seed in secure seed banks as long-term insurance against loss of plant diversity.
- 2. Conducting research to improve both conservation and restoration outcomes from seed banking.
- 3. Developing national standards and improving capacity to enable conservation and restoration of biodiverse and resilient ecosystems.
- 4. Sharing knowledge and engaging the public, private and charity sectors, as well as community members, in the work of the Australian Seed Bank Partnership.
- Securing and strategically managing our resources to strengthen and support the work of the Australian Seed Bank Partnership to achieve its vision.

Sharing knowledge

An important focus this year has been sharing knowledge and engaging a wide range of people in the critical work being undertaken by Australia's conservation seed banks. In March we brought researchers and conservation and restoration practitioners together to participate in the National Seed Science Forum, where they shared the latest research and ideas, discussed issues being faced by industry that could be addressed through science, and formed collaborations for future conservation, agricultural and restoration efforts.

Inspiring presentations by keynote speakers Professor Kingsley Dixon, Professor Angela Moles and Dr Christina Walters provided a catalyst for stimulating conversations around new discoveries and latest technologies. The Hon. Tim Fischer AC was our Dinner Speaker, and widened our perspective through his exploration of the role of the Global Crop Diversity Trust and its work in addressing food security.



At the National Seed Science Forum, Dr Christina Walters challenged the current seed banking paradigm and highlighted the need for greater collaborations between the conservation and agricultural sectors with respect to the conservation of germplasm. (Photo: Zoe-Joy Newby, RBGDT)

Seed banking for insurance

We have continued to focus our efforts on the first phase of the 1000 Species Project and to contribute to building a national safety net for Australian plant species through *ex situ* conservation. Research being undertaken by our Partners increases understanding of the seed biology of native plants, and sharing research findings helps engage a range of sectors in our work to increase awareness and understanding of the role of seed banking and associated research in biodiversity conservation.

Developing national standards

The Australian Seed Bank Partnership has been one of 12 partner organisations brought together by the Society for Ecological Restoration Australasia to prepare the world's first set of standards to improve the practice of environmental repair in Australia. These have been developed over a three-year period; that process carefully considered the needs of all stakeholders, and involved consultation with hundreds of stakeholders including agencies, researchers, industry organisations and individual practitioners. The standards present the principles underpinning restoration philosophies and methods, and outline the steps required to plan, implement, monitor and evaluate a restoration project to make its success more likely.

Conducting research

Western Australia

The Botanic Gardens and Parks Authority has been researching technologies to enhance seed regeneration for improved ecological restoration. A particular focus of the research is to develop seed handling techniques that will increase seedling establishment in programmes that aim to reinstate biodiverse plant communities across degraded landscapes.

In dryland regions, such as the Pilbara of north-western Australia, restoration is particularly challenging. Harsh environmental conditions and seeds with exacting requirements for germination confound attempts to restore plant biodiversity, and it is common for less than 10 per cent of seeds to establish in the field.



Emergent seedlings of *Triodia* in a glasshouse trial testing pellets of differing properties on the red-soils of the Pilbara. (Photo: BGPA)

To address this problem, new seed enhancement technologies are being explored and adapted for use on wild seeds. Seed enhancement refers to a suite of techniques that include seed priming, coating and pelleting, which can promote seedling stress tolerance and enhance germination and emergence rates.

Working with colleagues in the United States of America who are grappling with similar issues for rangeland management in the cold deserts of the Great Basin, clay-based seed pellets have been developed for the first time for native Australian species. Seeds of high-priority species, including *Triodia* (spinifex), are being encased in pellets that comprise different types of clays, water-holding powders, and germination-promoting compounds. Properties of

the pellets, such as hardness and water absorption and retention, are being tested in the laboratory and field to fine-tune their performance.

New South Wales

Saving rainforest seeds: what can be banked?

Although rainforests now cover less than 0.4 per cent of the Australian land mass, they hold a high proportion of our plant diversity. This diversity is under threat from the secondary pressures that follow large-scale clearing—fragmented populations, barriers to breeding, and increased risks of fire, weeds and disease. Seed banking is one solution to limit further loss of diversity; however, the prediction that many rainforest seeds would be unlikely to tolerate the necessary drying has restricted efforts in this direction.

To test the validity of the prediction, staff at the Australian PlantBank have been screening rainforest species for desiccation and freezing tolerance as part of the Rainforest Conservation Project. Of 137 species tested in the last three years, a surprising number—nearly 60 per cent—have been tolerant of drying, and a further 14 per cent have been at least partially tolerant. Unfortunately, around half of those tolerant of drying have been sensitive to freezing, and some of those tolerant of freezing have been comparatively short-lived in storage.

The challenge now is to find better ways to conserve those seeds that can't be banked in the standard way. As an interim measure, seeds that are tolerant of drying but not freezing are being held at 4°C until a longer-term storage environment can be found. A promising alternative for the desiccation-sensitive species involves removing the embryo from fresh seed, rapidly drying it and preserving it in liquid nitrogen. This method will be trialled over the next 18 months as seed becomes available.

The very recognisable seed pod of *Archidendron hendersonii*. (Photo: Graeme Errington, RBGDT)



Achievements around Australia towards our 1000 species target

Western Australia

Western Australia Seed Technology Centre

The Botanic Garden and Parks Authority's Seed Technology Centre successfully met its collecting targets once more, spending a total of 39 days in the field in the Gascoyne, Murchison, Pilbara and Kimberley regions of Western Australia.

Working in very challenging hot and humid conditions did not deter the collecting teams, who successfully added the large floriferous arid zone species, *Senna* sp. *meekatharra* to their collection, in addition to three *Calandrina* species that are unusual in possessing underground tubers. The collection of various *Eremophila* species will allow the team to experiment with a new scarification technique to facilitate seed germination.

Long collecting trips present seed storage challenges, as predation of seeds can occur when processing is delayed whilst travelling. Increased monitoring of collected seed will be undertaken on long trips in the future to prevent this becoming a recurring issue.



Seeds of *Eremophila spinescens* collected in the Gascoyne region of WA, which will be germinated using a new scarification technique. (Photo: Luke Sweedman, BGPA)

Threatened Flora Seed Centre: adding value to herbarium records

The Threatened Flora Seed Centre (TFSC) collected 13 species in the 2015–16 collecting year, including two critically endangered grass species, two vulnerable species, and eight species of conservation significance in Western Australia.

A notable collection was *Tetratheca remota*, a poorly-known species from the mid-west of Western Australia. Described in 1976, this species had been recorded only a handful of times until the 1980s, thereafter remaining unseen for more than 20 years despite repeated search attempts. In 2012 a flora conservation officer with the Department of Parks and Wildlife, Niall Sheehy, found more than 50 plants after having made it a personal mission to relocate the species. Now fast-forward to 2015, when *T. remota* was targeted for seed collection by the Department's TFSC, as part of the Partnership's 1000 Species Project.



The spectacular *Tetratheca remota* in flower. (Photo: Andrew Crawford, DPaW).

The collection was successful and was the first time seed of this species had been seen, let alone collected. The seed will now be stored for safe keeping in the TFSC, with a duplicate sample sent to the Millennium Seed Bank. This species is now the focus of an extensive survey effort by volunteers from the Jurien Regional Herbarium, with support from the World Wide Fund for Nature and the Department, in order to determine the true conservation status of this little-seen wonder.

South Australia

The South Australian Seed Conservation Centre made collections of 32 species, the majority of which are endemic to Kangaroo Island and South Australia.

On Kangaroo Island, the combination of insularity, landform, habitat diversity, and historical vegetation modification patterns have resulted in plant communities supporting 891 native vascular plant taxa with a high degree of endemism. Those unique taxa and rich plant communities on Kangaroo Island face a range of threats such as small-scale clearing, erosion, salinity, fragmenting populations, and the incursion of weed and disease species.

Thirteen of the 32 species collected by the South Australian team are listed as threatened under state legislation. Since many of these species exist in remote locations, repeated visits to ensure the timing of seed maturation are difficult, so the team 'bagged' a number of plants to catch the seeds.



Bags can be placed over stems containing immature fruit to catch seed when it is shed. The South Australian Seed Conservation Team recently used this method while collecting on Kangaroo Island. (Photo: Lucy Sutherland, ASBP)

Northern Territory

George Brown Darwin Botanic Gardens' (GBDBG) second year of involvement with the 1000 Species Project was very successful; 17 species new to the Millennium Seed Bank were collected during 25 days of fieldwork that involved more than 4000 km of driving.



The vulnerable *Goodenia quadrifida* in flower, collected for the first time in almost 50 years. (Photo: Ben Wirf, GBDBG)

The trips provided an opportunity to collect the nationally vulnerable *Goodenia quadrifida*, which has not been collected since 1968 and was previously represented by only three specimens in the Northern Territory Herbarium. The ability to locate, identify, photograph and collect live material was a privilege for GBDBG's collecting team, and will provide new herbarium specimens for the first time in almost 50 years.

The Darwin collecting team was also able to secure a collection of *Atalaya brevialata*, helping to safeguard the future of this critically endangered plant.

The unpredictable phenology and decreased flowering and fruiting of particular species was a challenge during the collecting trips, and may be due to the effect of two consecutive drier-than-average wet seasons. The collecting teams are always on the lookout for species flowering 'out of season', to supplement collections as a result of this unpredictable phenology of targets species.

Queensland

The Brisbane Botanic Gardens focussed its 2015–16 collecting work in the Wet Tropics and Cape York Peninsula region. Collaboration with the Traditional Owners in Cape York was very rewarding and greatly assisted this collecting work, allowing for the sharing of knowledge and successful safeguarding of species.

Plectranthus excelsus was successfully collected—with a distribution confining it to boulder fields in the foothills of Mt Tozer alone, it was a significant find.

Voucher specimens have been added to the limited existing herbarium collections, thereby helping the effort to undertake threatened species modelling.



Jason Halford (far right) collecting in Kutini-Payamu (Iron Range) National Park with Traditional Owners (left to right) Daniel Hobson, Colin Pascoe, Haston Bally and Lionel Hobson. (Photo: S. Bush, BBG)

New South Wales

The main seed collecting areas for New South Wales this year included the North Coast, Shoalhaven, Southern Tablelands, Blue Mountains and Bathurst regions. Good growing conditions and widespread rainfall across the state allowed additional collections to be made, exceeding the original target collection number.

Notable collections include the relic species *Pherosphaera fitzgeraldii*, a dwarf pine with a distribution limited to the spray zone of waterfalls on sandstone cliff lines. Collections were also made of several rare cryptic terrestrial orchid species and the critically endangered, and recently described, *Banksia vincentia*.



Gavin Phillips collecting *Pherosphaera fitzgeraldii*, the Dwarf Mountain Pine. It is endangered due to its restricted occurrence, which is less than 20 km². (Photo: Brett Summerell, RBGDT)



Banksia vincentia is critically endangered and is known from 14 plants from south-eastern NSW. (Photo: Gavin Phillips, RBGDT)



Commonwealth

Collections for the National Seed Bank in Canberra were made on Christmas Island (CI) and in the NSW Southern Highlands and ACT region over a total of 26 days. The CI target list included species that were endemic and/or had economic value, and the Highlands/ACT collections included nationally threatened species.

The CI species are particularly important in the ecosystem rehabilitation of mine sites. Their collection for the 1000 Species Project has enabled investigation of issues relating to collecting, germinating, propagating and banking that impede the species' use in the mine site rehabilitation programme on the island. This work aims to improve the protected area manager's ability to rehabilitate mine sites in the future.

The team faced quarantine challenges while trying to move the collected material from CI to the mainland. Importing whole fruit specimens was prevented, and the items were returned to CI; these species had to be re-collected, treated and sent as seeds only.

Tasmania

Collections of Lagarostrobos franklinii and Eucryphia lucida were made for the Global Trees Programme project this year, but, logistical and environmental factors prevented collections of Acradenia frankliniae and Anodopetalum biglandulosum. When Acradenia frankliniae was at the point of dispersal, the collecting trip had to be abandoned because of the extensive bushfires on the west coast during January and February. Fires also interfered with planned collecting activity for other projects, but opportunistic collections made this season successful nonetheless.



One of the mine site rehabilitation areas on Christmas Island. (Photo: Tom North, ANBG)



James Wood, RTBG's Seed Bank Manager, has been looking for *Juncus ratkowskyanus* in the field for the past seven years and he was absolutely delighted to find it this year (Photo: James Wood, RTBG)

Using Fieldwork Funds from Kew Gardens, the Tasmanian team successfully collected 11 of their target species and 33 additional opportunistic collections were made, adding 14 new species to seed banks. Notable this season was the collection of two endemic species—*Olearia ledifolia* and *Juncus ratkowskyanus*. The *Olearia* has been examined on several occasions but had not, until this year, been found to bear viable seed. The *Juncus* collection is the first record of this species since 1990.

Victoria

The Victorian Conservation Seedbank had another successful collecting year, adding 18 new taxa to Australian seed banks with Fieldwork Funds from Kew Gardens.

One notable find was a fruit-laden *Myrsine howittiana*, or Brush Muttonwood. This species is endemic to eastern Australia, with its distribution running from southern Victoria to Fraser Island. It occurs in rainforest and along moist forest margins, and many populations occur in protected areas, such as Mitchell River National Park.



The impressively fruit-laden branches of *Myrsine howittiana*. (Photo: Neville Walsh, RBGV)

FUTURE DIRECTIONS

The Australian Seed Bank Partnership is working towards a future where Australia's native plant diversity is valued, understood and conserved for the benefit of all. As part of our ambitious programme of work, we will focus on the following projects in 2016–17:

Phytophthora cinnamomi

Australian conservation seed banks hold collections of species that are threatened by Phytophthora cinnamomi (dieback); however, the genetic diversity of a number of these species is not sufficient to support effective species recovery. In the upcoming year, we will be working with the Australian Government's Department of the Environment and Energy to build comprehensive and genetically diverse ex situ collections of select species of Australian native plants that are listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999, and at risk from Phytophthora cinnamomi. These collections will add to the 38 ex situ collections of 20 taxa susceptible to Phytophthora cinnamomi that we made in 2012–13 as part of an earlier collaboration with the Australian Government. This time we will focus our efforts in Western Australia, New South Wales, Victoria and South Australia.



Our partners will be building provenance collections of species susceptible to *Phytophthora cinnamomi*, supported by the Department of the Environment and Energy. Damage to native vegetation resulting from *P. cinnamomi* can be seen here, in *Xanthorrhoea* sp. Washpool National Park, NSW. (Photo: Brett Summerell, RBGDT)



Verticordia densiflora var. pedunculata is one of the taxa being targeted for collection in Western Australia because it is susceptible to *Phytophthora cinnamomi*. (Photo: Andrew Crawford, DPaW)

Global Trees Programme

We will enter our third year of collecting for the Garfield Weston Foundation's Global Trees Programme with Kew Gardens. We are targeting 122 species of trees that have not yet been conserved in conservation seed banks, and will be focusing our fieldwork in the Northern Territory, New South Wales, Queensland, Victoria and Western Australia.

Threatened and endemic species

This year, Partners are heading to the Pilbara and south-west Western Australia, to South Australia's Stony Plains, to Oxley Wild Rivers (NSW), and back to Kakadu, the Wet Tropics, south-east Queensland, and the Australian Alps. We will build on our success in seed banking species of national importance through collections of threatened and endemic species and those of economic potential.

We will continue seeking support to implement the second phase of this project, which aims to capture high quality and genetically diverse seed of 1000 species to maximise the adaptive potential of restoration efforts for current and future environmental change.

Seed supply standards

Led by Australian Seed Bank Partnership member, the Australian Network for Plant Conservation, we will bring together a consortium of conservation and restoration agencies to prepare national seed standards. National seed standards will provide guidance for practitioners and community groups to realign their seed collecting practices in a sustainable manner. This will reduce the pressure on natural populations and ecosystems that are being commonly targeted as seed sources. National seed standards will ensure that only high quality seed is used for restoration, improving the success of these projects and associated biodiversity outcomes. Having and applying seed standards will also improve the cost-effectiveness and efficiency of seed collection and use.

Australian Seed Bank - Phase 2

We continue seeking support to enhance our ability to share our scientific knowledge with conservation and restoration practitioners and land managers. The Partnership and Atlas of Living Australia have developed an accessible online seed information resource so that seed collections data can be shared, retrieved and utilised.

The second phase of this project aims to help make seed germination data available in a usable form. This project will also provide training to increase use of the resource by relevant natural resource management and landcare groups, community groups, and local government staff.



The resourceful BGPA team have been collecting from boabs (*Adansonia gregorii*) in the Kimberley region as part of the Global Trees Programme. The team will be returning to the Kimberley in the 2016–17 collecting season. Boabs are highly valued by Indigenous people for their edible fruits, medicinal uses and water-holding properties. The pithy material surrounding the seed is edible and has a tangy taste. (Photo: Luke Sweedman, BGPA)

HOW YOU CAN HELP

The Australian landscape is like no other! Our continent has a treasure of unique plants— more than three quarters of our 18,500 flowering plant species are found nowhere else in the world.

The Australian Seed Bank Partnership is taking decisive action to safeguard Australia's plants. Seed banking is a principal tool for the safe and efficient storage of wild plant genetic diversity, and provides a resource and knowledge base to support the management of plant species and communities.

With your help, we can continue our national effort to conserve Australia's native plant diversity through collaborative and sustainable seed collecting, banking, research, and sharing our knowledge about Australian plants. With your help, we can make a difference.

This striking *Scholtzia* sp. Yandanooka is endemic to the south-west of Western Australia, a region recognised as one of the world's 34 biodiversity hotspots. A number of threatened species are found in this region. (Photo: Andrew Crawford, DPaW)

Do you want to be a species advocate?

Do you want to help save a species?

Are you the person who can give or raise \$9400 to help save one native Australian species?



Our partners work in remote locations, and sometimes this requires helicopters and boats to access these places. Here is the RTGB team collecting *Athrotaxis cupressoides*, or Pencil Pine, at the serene Lake Symphony on the Tyndall Range, Southwest National Park, Tasmania. (Photo: RTBG)

One of the best ways you can support the conservation of Australia's unique flora is to be a plant conservation advocate. Consider:

- making a donation to the Australian Seed Bank Partnership to help us conserve 1000 species for our future
- advocating for the Australian Seed Bank Partnership each \$9400 you give or can raise among your friends will help save a species.

If you would like to become a Species Advocate, contact our National Coordinator on +61 (0) 2 6250 9473 or email: coordinator@seedpartnership.org.au

Donations of more than \$2 are tax-deductible.

ANNUAL FINANCIAL REPORT for the year ending 30 June 2016

The Australian Seed Bank Partnership is a trading name of The Council of Heads of Australian Botanic Gardens Incorporated (CHABG), as well as its primary conservation programme. CHABG is an Association incorporated under the *Australian Capital Territory Association Incorporation Act 1991*, an Act administered by the Office of Regulatory Services in the ACT. CHABG, a charitable institution endorsed by the Australian Taxation Office, is also endorsed

as a deductable gift recipient under Subdivision 30-BA of the *Income Tax Assessment Act 1997* for the operation of 'Council of Heads of Australian Botanic Gardens Public Fund'.

The financial report contained within this annual report also includes financial statements for CHABG's other programme activities.

Statement by the Management Committee

for the year ended 30th June 2016

In the opinion of the Management Committee of CHABG Inc

the attached financial statements and notes thereto comply with Accounting Standards

the attached Income Statement is prepared so as to give a true and fair view of the Financial Performance of the association for the year ended 30th June 2016

the accompanying Balance Sheet is prepared so as to give a true and fair view of the Financial Position of the association as at 30th June 2016

there are reasonable grounds to believe that the CHABG Inc. will be able to pay its debts as and when they fall due and payable

that no officer of this association, or any firm of which an officer is a member, or any body corporate in which an officer has a substantial financial interest has received or is entitled to receive any benefit from a contract with this association, nor has any officer received any direct or indirect pecuniary benefit from this association.

SIGNED In accordance with a resolution of the Management Committee

This Thursday of 18th October 2016
On behalf of the Management Committee

(Name: Time Entrale)

(Position: Chair

(oural of Heals of Archaha Batanic Gardens Inc.

(Name: Turyllink
)
(Position: Secretary
)

(Position: Secretary
)

(Council of Heals of Australian Satanic Gardens Inc.

CHABG Inc

Annual Financial Statements

2015-2016

Independent Auditor's Report

for the year ended 30th June 2016

To the Members CHABG Inc

Scope

The financial report and management committee's responsibility

The Management Committee are responsible for the financial report, being a special purpose financial report, that gives a true and fair view of the financial position and performance of CHABG Inc, for the year ended 30th June 2016 and that it complies with Accounting Standards in Australia. This includes responsibility for the maintenance of adequate accounting records and internal controls that are designed to prevent and detect fraud and error, and for the accounting policies and accounting estimates inherent in the financial report.

The Management Committee have determined that the accounting policies used are consistent with the financial reporting requirements of the *CHABG Inc*, and are appropriate to meet the needs of the members.

The financial report comprises the balance sheet, income statement, accompanying notes to the financial statements, and the management committee's statement, for CHABG Inc.

Audit Approach

I conducted an independent audit of the financial report in order to express an opinion on it to the members of the association. The audit was conducted in accordance with Australian Auditing Standards in order to provide reasonable assurance as to whether the financial report is free of material misstatement. The nature of an audit is influenced by factors such as the use of professional judgment, selective testing, the inherent limitations of internal control, and the availability of persuasive rather than conclusive evidence.

Therefore, an audit cannot guarantee that all material misstatements have been detected.

I performed procedures to assess whether in all material respects the financial report presents fairly, in accordance with the *Associations Incorporation Act 1991*, including compliance with Accounting Standards in Australia, and other mandatory financial reporting requirements in Australia, a view which is consistent with our understanding of the association's financial position, and of its performance as represented by the results of its operations, changes in equity and cash flows.

I formed my audit opinion on the basis of these procedures, which included:

- > Examining, on a test basis, information to provide evidence supporting the amounts and disclosures in the financial report
- > Assessing the appropriateness of the accounting policies and disclosures used and the reasonableness of significant accounting estimates made by the committee.

While I considered the effectiveness of management's internal controls over financial reporting when determining the nature and extent of my procedures, my audit was not designed to provide assurance on internal controls. I performed procedures to assess whether the substance of business transactions was accurately reflected in the financial report.

These and my other procedures did not include consideration or judgment of the appropriateness or reasonableness of the business plans or strategies adopted by the management committee of the association.

Independence

I am independent of the association, and have met the independence requirements of Australian professional ethical pronouncements and the *Associations Incorporation Act* 1985. I have given to the management committee of the association a written auditor's independence declaration, a copy of which is included in the financial report. In addition to my audit of the financial report, I was engaged to undertake the services disclosed in the notes to the financial statements. The provision of these services has not impaired my independence.

Qualification

As is common for organisations of this type, it is not practicable for the management committee to maintain an effective system of internal control over its cash income prior to initial entry into the accounting records. Accordingly, my audit in relation to these items was limited to the amounts recorded in the books and records for the financial year and I therefore am unable to express an opinion whether proceeds of cash income obtained are complete.

Audit Opinion

In my opinion, except for the effects on the financial report of such adjustments, if any, as might have been required had the limitation on my audit procedures referred to in the qualification paragraph not existed, the financial report of CHABG Inc, is in accordance with:

- a) The Associations Incorporation Act 1991, including:
- i. Giving a true and fair view of the financial position of CHABG Inc and of its performance for the year ended on 30 June 2016
- ii. Complying with Accounting Standards in Australia and the Associations Incorporations Act 1991
- b) Other mandatory financial reporting requirements in Australia.

Tradition 1

Signed this the 19th day of September 2016

Tony Trimboli CPA Australia

Auditor's Declaration of Independence for the year ended 30th June 2016

To the Management Committee of CHABG Inc.

i declare that, to the best of my knowledge and belief, there have been no contraventions of:

- (i) The auditor independence requirements of the Associations Incorporation Act 1991 in relation to the audit
- (ii) Any applicable code of professional conduct in relation to the audit.

Signed this the Hiday of Sopketer 2016

Tony Trimboli CPA Australia

CHABG Inc. Statement of Expenditure and Income

	2015-16	2014–15
Income		
Membership Contribution	15,000	13,000
Donation	6,722	100
Grant Funding - Royal Botanic Gardens Kew - Fieldwork Funds	-	97,170
Grant Funding - Royal Botanic Gardens Kew - Global Trees	-	425,839
Dept of Environment - Phytophthora Research	50,000	-
National Seed Science Forum Revenue	66,872	-
Interest	304	576
Total Income	138,898	536,685
Expenditure		
General Expenditure	8,087	7,254
National Seed Science Forum	39,524	
Grant Funding - Royal Botanic Gardens Kew - Fieldwork Funds	96,830	85,862
C4 Grass Collectionns - Royal Botanic Gardens Kew Funds	24,000	10,000
Grant Funding - Royal Botanic Gardens Kew - Global Trees	193,583	145,016
Total Expenditure	362,024	248,132
Surplus/Deficit	(223,126)	288,553

CHABG Inc. Balance Sheet

Retained earnings

CHADO IIIC. Building Stiece		
	2015–16	2014–15
Current Assets		
Deposit account 224159	193,200	444,123
Deposit account 224167	74,323	43,820
Sundry Debtor	1,287	1,100
ATO - GST refundable		938
Total Assets	268,810	489,981
Liabilities		
ATO - GST Payable	1,955	-
Net Assets	266,855	489,981
Equity	(489,981)	(201,428)
Surplus/Deficit for year	223,126	(288,553)

(266,855)

(489,981)

GOVERNANCE OF THE AUSTRALIAN SEED BANK PARTNERSHIP

The Management Committee of The Council of Heads of Australian Botanic Gardens Incorporated (CHABG Inc.) draws on the expertise of senior executives from Australia's capital city botanic gardens, who guide the strategic direction of the Partnership's work to ensure it addresses national plant conservation priorities and contributes to international conservation targets.

Members of the Committee of the Council in 2015–16 were:

- Prof Tim Entwisle Director and Chief Executive, Royal Botanic Gardens Victoria (CHABG Chair, November 2015–)
- Mr Stephen Forbes former Director, Botanic Gardens of South Australia (CHABG Chair February 2011– November 2015)
- Mr Dale Arvidsson Curator, Brisbane Botanic Gardens
- **Mr Gary Davies** Director, Royal Tasmanian Botanical Gardens
- **Ms Janice Goodwins** Acting Director, Botanic Gardens of South Australia
- **Mr Bryan Harty** Director, George Brown Darwin Botanic Gardens
- Dr Brett Summerell Executive Director, Royal Botanic Gardens and Domain Trust
- **Mr Mark Webb** Chief Executive Officer, Botanic Gardens and Parks Authority (Kings Park)
- **Ms Marcelle Broderick** Acting Chief Executive Officer, Botanic Gardens and Parks Authority (Kings Park)
- **Dr Judy West** Executive Director, Australian National Botanic Gardens.

We would like to recognise the contribution of former Committee member **Mr Mark Fountain** (Deputy Director, Royal Tasmanian Botanical Gardens).



Prof Tim Entwisle



Mr Stephen Forbes



Mr Dale Arvidsson



Mr Gary Davies



Ms Janice Goodwins



Mr Bryan Harty



Dr Brett Summerell



Mr Mark Webb



Ms Marcelle Broderick



Dr Judy West

The Australian Seed Bank Partnership grew out of the Royal Botanic Gardens, Kew's Millennium Seed Bank Project, which supported Australian institutions to help achieve the Project's goal of banking 10 per cent of the world's plant species by 2010. We continue to support Kew's endeavour to bank 25 per cent of the world's flora by 2020.

The Partnership's programme is carried out in collaboration with our partner organisations (see page 27). Other organisations (our Associates) assist with individual projects that contribute to the overall programme (see page 26). The programme is managed by a National Steering Committee and led by the National Coordinator provided by the Director of National Parks (through the Australian National Botanic Gardens).

The Australian Seed Bank Partnership is supported by financial and in-kind contributions (e.g. scientific expertise, project management, fieldwork, information management, promotion and marketing) from partner organisations and through philanthropic and public donations. Our business plan outlines our national programme, which includes specific strategies, actions and timelines: http://seedpartnership.org.au/about/reports

National Coordinator Australian Seed Bank Partnership – Dr Lucy A. Sutherland

The role of the National Coordinator is to provide strategic leadership and programme management to oversee the implementation of the Partnership's business plan, policy and operations. The Coordinator also works with the members of the Partnership to secure the necessary funds for operations and programmes that will realise the business plan for the Partnership.

National Steering Committee

The National Steering Committee brings together a team of leading experts from the members of the Partnership, who help deliver real plant conservation outcomes. These experts range from seed scientists, botanists, taxonomists and ecologists to horticulturalists and plant conservation ambassadors.

Members of the National Steering Committee during 2015–16 were:

- **Mr Philip Cameron** Senior Botanic Officer and Seed Bank Manager, Brisbane Botanic Gardens, Mt Coot-tha
- **Dr Anne Cochrane** Committee Member, Australian Network for Plant Conservation
- Dr Peter Cuneo Manager, Seedbank and Restoration Research, Royal Botanic Gardens and Domain Trust
- Mr Jason Halford Botanic Senior Officer, Brisbane Botanic Gardens, Mt Coot-tha
- **Dr Jenny Guerin** Seed Research Officer, Botanic Gardens of South Australia
- Mr Graham Fifield Senior Project Manager, Greening Australia
- **Dr Paul Gibson-Roy** Lead Scientist Eastern Australia, Greening Australia
- Dr David Merritt Senior Research Scientist, Botanic Gardens and Parks Authority
- **Mr Tom North** Seed Bank Manager, Australian National Botanic Gardens
- Mr Neville Walsh Senior Conservation Botanist, Royal Botanic Gardens Victoria
- Mr Ben Wirf Nursery and Seed Bank Manager, George Brown Darwin Botanic Gardens
- Mr James Wood Seed Bank Manager, Royal Tasmanian Botanical Gardens.

THANK YOU—SUPPORTERS AND ASSOCIATES

The Australian Seed Bank Partnership would like to thank all our supporters and Associates. Your resources and in-kind support have made significant contributions to our mission to conserve Australia's native plant diversity.

We look forward to working with our supporters and Associates in the coming years to achieve our vision of a future where Australia's native plant diversity is valued, understood and conserved for the benefit of all.

Supporters

- Royal Botanic Gardens, Kew
- Director of National Parks (Australian Government)
- Australian National Botanic Gardens
- The Royal Botanic Gardens and Domain Trust
- Australian Grains Genebank (Victoria State Government)
- Cooperative Research Centre for Remote Economic Participation
- The lan Potter Foundation
- Australian Network for Plant Conservation
- Tyrrell's Wines
- Melaleuca House Pty Ltd
- Thermoline Scientific Pty Ltd
- Natural Area Consulting Management Services
- NRMjobs.com.au
- CSIRO Publishing
- Botanic Gardens of South Australia
- Island Press
- Dr Bob Redden
- Anonymous Donor

Associates

- Alcoa of Australia Limited
- Atlas of Living Australia
- Australian Government Department of the Environment
- Australian Grains Genebank
- Botanic Gardens of Australia and New Zealand Inc.
- Centre for Australian National Biodiversity Research
- CSIRO
- Global Crop Diversity Trust
- Grains Research and Development Corporation
- Queensland Government Department of Agriculture and Fisheries
- Society for Ecological Restoration Australasia
- University of New England
- University of Queensland

Volunteers

- Anna Moreing
- Michael Moreing
- Patricia Georgee
- Susan Buller
- Adam Huttner-Koros

PARTNER ORGANISATIONS OF THE AUSTRALIAN SEED BANK PARTNERSHIP

Australian PlantBank

The Royal Botanic Gardens and Domain Trust (RBGDT)

Australian Network for Plant Conservation Inc. (ANPC)

Brisbane Botanic Gardens Conservation Seed Bank

Brisbane City Council (BBG)

George Brown Darwin Botanic Gardens

Parks and Wildlife Commission of the Northern Territory (GBDBG)

Greening Australia (GA)

Millennium Seed Bank Partnership

Royal Botanic Gardens, Kew (RBG Kew)

National Seed Bank

Australian National Botanic Gardens (ANBG)

South Australian Seed Conservation Centre

Botanic Gardens of South Australia (BGSA)

Tasmanian Seed Conservation Centre

Royal Tasmanian Botanical Gardens (RTBG)

The Victorian Conservation Seedbank

Royal Botanic Gardens Victoria (RBGV)

The Western Australia Seed Technology Centre

Botanic Gardens and Parks Authority (BGPA)

Threatened Flora Seed Centre

Department of Parks and Wildlife, Western Australia (DPaW)

































Australian Seed Bank Partnership c/o Australian National Botanic Gardens GPO Box 1777 Canberra ACT 2601 Australia

ABN: 58153442365

Contact: Dr Lucy A. Sutherland

t: +61 (0) 2 6250 9473

e: coordinator@seedpartnership.org.au

www.seedpartnership.org.au/

CHABG Inc. (trading as the Australian Seed Bank Partnership) is dedicated to supporting the protection, conservation and enhancement of Australian plants and their ecosystems. CHABG Inc. relies on support for the Australian Seed Bank Partnership Programme and its other programmes to achieve its vision of a future where native plant diversity is valued, understood and conserved for the benefit of all. Please help us to conserve Australia's unique flora and plant communities today and for the future. CHABG Inc. is a charitable institution, with deductible gift recipient status (item 1), and operates the Council of Heads of Australian Botanic Gardens Public Fund.