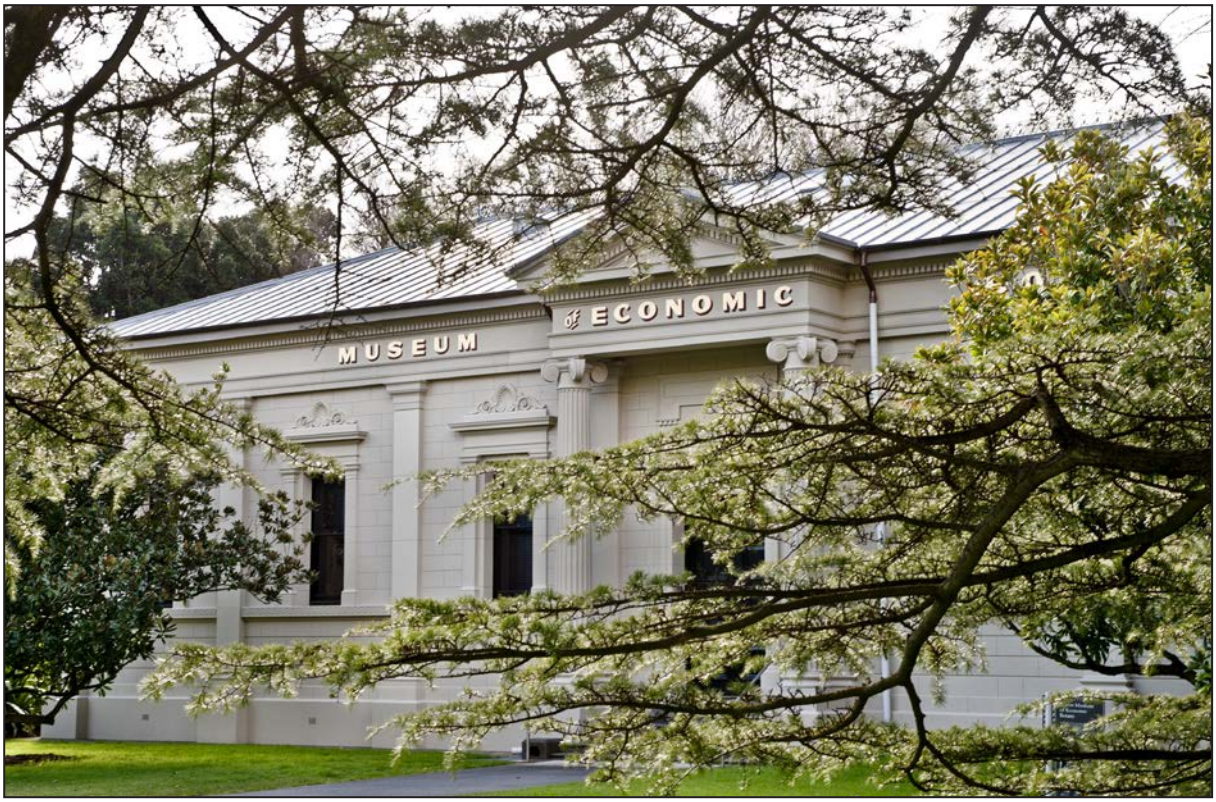
Board of the Botanic Gardens and State Herbarium

Annual Report 2012-2013

connecting people to plants

Annual Report of the Board of the Botanic Gardens and State Herbarium
2012–2013



Santos Museum of Economic Botany

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Government of South Australia
Department of Environment and Natural Resources

Botanic Gardens of ADELAIDE
ADELAIDE MOUNT LOFTY WITTUNGA

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LETTER OF TRANSMITTAL

Board *of the*
Botanic Gardens *and*
State Herbarium

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30 September 2013

Hon Ian Hunter MLC
Minister for Sustainability, Environment and Conservation
Parliament House
North Terrace
ADELAIDE SA 5000

Dear Minister

In accordance with the requirements of the Public Sector Act 2009 and Section 23 of the *Botanic Gardens and State Herbarium Act 1978*, I have pleasure in presenting the annual report of the Board of the Botanic Gardens and State Herbarium for the year ended 30 June 2013.

Judy Potter

Presiding Member
Board of the Botanic Gardens and State Herbarium

PRESIDING MEMBER'S FOREWORD

The importance and value of the Botanic Gardens and State Herbarium as the state's storehouse of plants and as a place of exceptional beauty are clear. It is the role of the Board to ensure that the quality of the work associated with the plant collections continues and that the Gardens themselves flourish for everyone to enjoy far into the future.

The Gardens is a place where a balance of a collections perspective and displaying plants is fundamental. To build on strengths developed during the preceding period and to deliver its important agenda, this year the Board successfully implemented the Botanic Gardens and State Herbarium Strategic Plan 2012–2017.

The plan, over five years, represents an important long-term vision for the Gardens and Herbarium: as keepers of collections and knowledge, we are champions and storytellers of how plants shape our future. The plan is underpinned by four themes that each frame three objectives that will contribute to the positive legacy that is the Botanic Gardens.

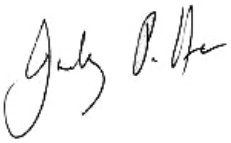
First, is the renewed and reinvigorated focus on the collections—living, preserved and cultural, which we believe most South Australian's expect us to manage and protect on their behalf. Our best practice in this work is evidenced by American Alliance of Museums accreditation, signifying a commitment to quality assurance, self-regulation and public accountability. As part of creating and showcasing beautiful gardens, a master plan was developed for the Wittunga Botanic Garden for the first time, with the aim of progressively enhancing the Garden's natural qualities and opening it up for the enjoyment of more South Australians.

Second is knowledge. Taking the long view, we will be at the forefront, amongst the world's leaders, in our knowledge of our collections and plants; in our scientific endeavours and our resolve to meet future challenges. We will also exemplify and demonstrate excellence by working with and learning from others. Indicative is the publishing of 111 scientific articles over the past year, 72% of them peer reviewed, which far exceeds the performance target of 10%.

Thirdly, is to be unsurpassed in sharing our knowledge of plants, which dominated much of the work in the Gardens and Herbarium over the past year. Through their beauty and diversity, our plants and displays inspire our visitors and by interpreting and sharing knowledge about them, in particular, through the digital information environment, we promote a love and appreciation of plants and play our part in helping to address some of the big issues, such as climate change and food and water security. The disability access trail under construction at Mount Lofty Botanic Garden will enable more people to enjoy its renowned cool-climate collections.

And finally, the rigour we bring to our organisation and processes, in the way we foster productive partnerships and support our volunteers as examples. This is reflected in the establishment of the Australian Centre of Horticultural Excellence, a strategic partnership with TAFE SA, which is expected to enroll 60 aspiring horticulturalists over the next year. And our volunteers contributed 45 563 hours, up by an extraordinary 30% on the previous year.

The Board's achievements have only been made possible through the dedication, support and above all passion for the Gardens by so many. In this, the Board pays tribute to the Adelaide Botanic Gardens Foundation, the Friends of the Botanic Gardens, volunteers and honorary associates. The Board makes special mention of Mrs Helena Jenkinson, who steps down as President of the Friends. On behalf of the Board I also extend thanks to donors, sponsors and industry, government and community bodies that make an important contribution to various committees. Special thanks for their continued support to Mr Allan Holmes, Chief Executive, Department of Environment, Water and Natural Resources and the Hon Ian Hunter MLC, Minister for Sustainability, Environment and Conservation. The Board expresses its appreciation and thanks to Stephen Forbes, Director of the Botanic Gardens and staff—each and everyone has played an invaluable role in another successful year.



Judy Potter

Presiding Member
Board of the Botanic Gardens and State Herbarium

DIRECTOR'S REPORT

Visitors to botanic gardens come in search of beauty, peace and tranquility. They find it, as botanic gardens are custodians of beautiful, rich landscapes that provide a significant part of a city's heritage.

As important as this is to a city, adding depth and richness, the real role of a botanic gardens has always been much more significant. Botanic gardens bring together unique living, preserved and cultural plant collections and a tradition of focused botanical and horticultural enquiry and scholarship.

Today more than ever before the development of plant collections is the focus for botanic gardens—building knowledge about them and sharing it with researchers, scientists and the community. In so doing, botanic gardens are positioned to lead new directions in botany, horticulture and landscap restoration and thus play a powerful role in helping address some of the larger questions around food, water and energy security and climate change.

This focus is reflected in the new Botanic Gardens and State Herbarium Strategic Plan 2012–2017. This annual report sets out the achievements of the Botanic Gardens and State Herbarium over the past year, the first year of the plan, and I mention just a few of them here.

Our efforts to recognise and safeguard native South Australian Flora were well rewarded, with 61% of threatened plant species now conserved in the seedbank of the South Australian Seed Conservation Centre. In its work, the Centre is supported by a team of intrepid seed hunters who venture into the bush and outback to search out and collect seeds of native fauna at risk of extinction.

During the year the Botanic Gardens and Herbarium published 111 scientific articles and other publications, an extraordinary 72% of them peer reviewed. The scientific endeavour of the Herbarium, in particular, and sharing its knowledge not only through publishing, but also through the *Flora of South Australia*, the Global Plant Initiative and Australia's Virtual Herbarium underpins the institution's reputation and authority in plant knowledge and research, and in its capacity to forge links with industry and secure competitive grants. During the year the Herbarium added another 549 records to its specimen database, bringing the total to 722 980 specimens recorded.

The review of two of our focus collections provided us with a blueprint for their management and development. The broader aim is to be able to use the knowledge contained in the Garden's 12 focus collections to identify opportunities to better display, curate and interpret them so as to better connect people with the importance of plants. Through the Green Infrastructure Project the Botanic Gardens, with its partners, worked to raise awareness about the environmental, social and economic benefits of green infrastructure and its potential to influence the liveability of the urban environment.

A major initiative was an evidence-base report to influence policy makers, planners, the development industry and local and state government.

Of course, trees are the 'bones' of a botanic garden, and the 3 500 trees that comprise the landscape of the Adelaide Botanic Gardens represent the richest collection in South Australia. In preserving the tree canopy, 284 new trees were planted during the year, 65% in the Adelaide Botanic Garden. Trees and wood represent key elements of our relationship with the environment, and the *WOOD art design architecture* exhibition, in conjunction with the JamFactory, provided a rare opportunity for the community to embrace a broad range of perspectives of wood's beauty, utility, diversity and significance. The *Paper, Ink and Ochre* exhibition, held in conjunction with the Art Gallery of South Australia, celebrated the role of art in sharing cultural knowledge of plants, animals and country.

After 40 years horticultural training is back into the hands of the State's premier place of horticultural knowledge, the Botanic Gardens of Adelaide. The partnership with TAFE SA in the Australian Centre of Horticultural Excellence provides an exciting opportunity for students to be able to gain accredited qualifications, while accessing the expertise of Garden's staff and internationally renowned plant collections. Such unparalleled opportunities are only offered in handful of places across the world, and Adelaide is the only Australian location offering this kind of training. This high-quality, practical training makes the qualifications awarded by the Centre highly attractive and competitive in the education market. Master classes for professionals, para-professionals, and skilled practitioners will be added to the program in coming semesters. Through this initiative the Botanic Gardens is making a significant contribution to the future of the horticultural industry and gardening enthusiasts.

During the year more than 50 000 school children were the beneficiaries of the Garden's Education Service. The Service is embracing new technology platforms to create more flexible teaching options and 'open up' the Gardens

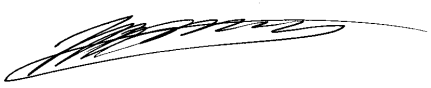
so that future generations value and appreciate the importance of plants to life.

The Gardens continues to be actively involved with the Council of Heads of Australian Botanic Gardens, Council of Heads of Australian Herbaria and Botanic Gardens Australia and New Zealand.

As we embark on the second year of our long-term vision for the Gardens, I extend thanks to all those who contributed over the past year.

In particular, my thanks goes to the Hon Ian Hunter MLC, Minister for Sustainability, Environment and Conservation; Mr Allan Holmes, Chief Executive of the Department of Environment, Water and Natural Resources; Ms Judy Potter, Presiding Member of the Board of the Botanic Gardens and State Herbarium; Mr David Knox, Chair of the Adelaide Botanic Gardens Foundation; and Mrs Helena Jenkinson, for her unwavering support as President of the Friends of the Botanic Gardens of Adelaide over the past two years.

I extend my appreciation to the many people who make up our Gardens' community—staff, volunteers, the Adelaide Botanic Gardens Foundation, Friends of the Botanic Gardens of Adelaide and, of course, our partners and sponsors who contribute so much in so many ways. You have all made possible our many achievements over the past year, thank you.



Director Botanic Gardens and State Herbarium

Eucalyptus viminalis, Wittunga Botanic Garden

THE BOTANIC GARDENS AND STATE HERBARIUM

Adelaide Botanic Garden and Botanic Park

The Botanic Gardens of Adelaide has played a significant role in the cultural life of the State for more than 150 years. With approximately 1.1 million visitors a year at the Adelaide Garden and 1.7 million across all three gardens, it is the most popular of the State's cultural institutions. Its 24 hectares is regarded by the community as a place for relaxation, entertainment and recreation, education, and research into collections of botany, ecology and horticulture. Botanic Park, which was established in 1870 as an arboretum, is an adjacent significant heritage landscape. Dotted with century-old Moreton Bay Figs, the 34-hectare park is popular for picnics, wedding-party photographs and major events.

Mount Lofty Botanic Garden

Mount Lofty Botanic Garden opened to the public in 1977, following the purchase of the estate of Thomas Backhouse in 1952. A substantial program to establish landscaping, visitor amenities and cool-climate collections transformed it from an estate thick with regrowth Stringy Bark forest and Radiata Pine plantations into a major Adelaide Hills tourist attraction devoted to the cultivation of plants from cool temperate parts of the world. The garden today, which covers 97 hectares, includes collections of magnolias, rhododendrons, ferns and the ATCO Heritage Rose Garden.

Garden Blitz Volunteer, Mount Lofty Botanic Garden

Wittunga Botanic Garden

Wittunga meaning "beside water" was established as a private home by Edwin Ashby in 1902. The original property was based on a formal English design including extensive apple and pear orchards and Edwin's love of South African plants. In 1971 it was bequeathed to the Botanic Gardens of Adelaide by Edwin's son Keith Ashby and was opened to the public as a botanic garden in 1975. An intimate and beautiful garden on 14 hectares, today Wittunga highlights the relationship between South African and Australian shrub and tree species. The garden's displays of South African and Australian plants are especially spectacular in spring, and include rich collections of *Erica, Leucadendron* and *Protea,* which are complemented by exotic and unusual bulbs and colourful annuals. The majority of the plants from South Africa come from the Cape Province district, which has a climate similar to Adelaide's.

State Herbarium of South Australia

Located in the refurbished Tram Barn A in the Adelaide Botanic Garden, the State Herbarium is the fourth largest herbarium in Australia containing more than one million plant specimens. It is the centre for the preservation and generation of the knowledge of native and naturalised plants, algae, lichens and fungi in the State. The Tram Barn also houses the Science Resource Centre of the Department of Environment, Water and Natural Resources (DEWNR) and the Australian Centre for Ancient DNA—making it a hub of scientific expertise. Data gathered with the collections are used for a wide range of applications in research, education and the determination of species distributions to aid in the detection of rare or threatened species.

PLANS AND OBJECTIVES

THE BOARD'S STRATEGIC PLAN 2012–2017

The Board of the Botanic Gardens and State Herbarium provides advice to the Minister for Sustainability, Environment and Conservation (the Minister) on the State Herbarium and three garden sites: Adelaide Botanic Garden and Botanic Park, Mount Lofty Botanic Garden and Wittunga Botanic Garden.

The Board is guided by the *Botanic Gardens and State Herbarium Act 1978*, and the Board's role and functions are set out in more detail in the section Role, Legislation and Structure section of this report.

Over the past year the Board has also been guided by the Botanic Gardens and State Herbarium Strategic Plan 2012–2017.

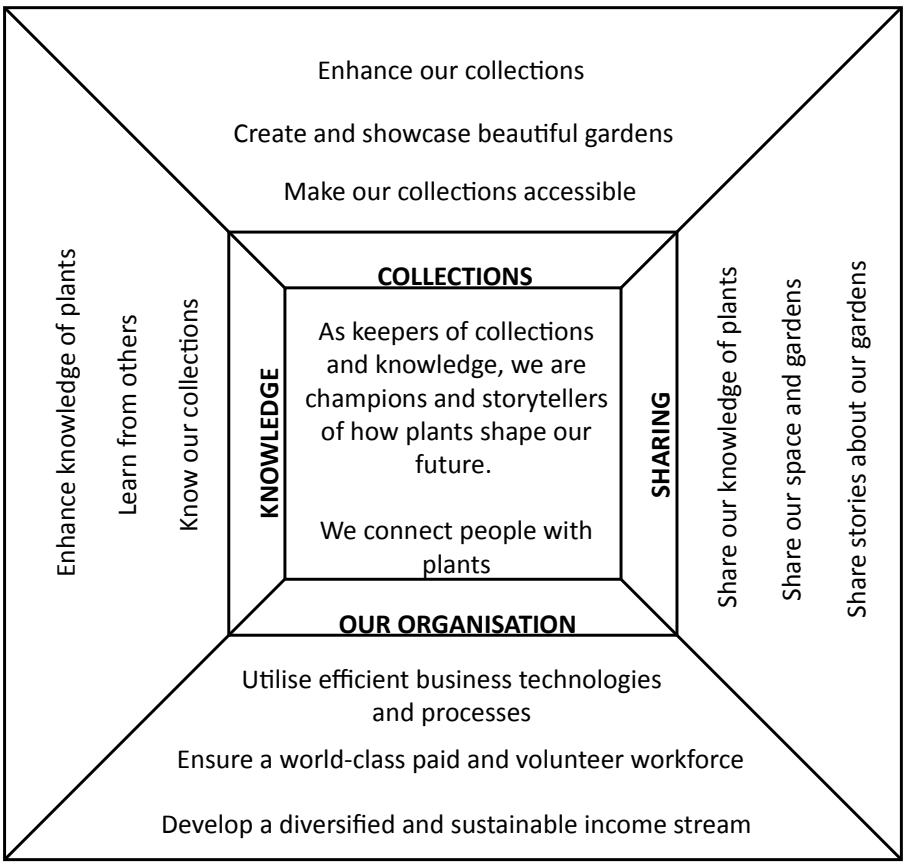
In formulating the plan, the Board was informed by the International Agenda for Botanic Gardens in Conservation's definition of a botanic garden, as a 'cultural institution holding documented collections of living plants for the purpose of scientific research, conservation, display and education'.

It follows that the strategic plan 2012–2017 positions the Botanic Gardens and State Herbarium as a keeper of collections and knowledge and, further, as a champion and storyteller of how plants shape our future. In this, it connects people with plants.

Essentially, the Board aspires to be:

- unsurpassed in sharing knowledge of plants
- at the forefront amongst world leaders in scientific endeavours, and resolved to meet future challenges
- agile in all aspects of its business to maintain its relevance to the community
- sought after for strong partnerships
- inspirational to visitors through the beauty and diversity of plants and displays.

The strategic plan is set out according to four themes: collections, knowledge, sharing and the organisation, with three key objects under each theme. This report sets out achievements over the past year measured against key performance indicators.



CONTRIBUTION TO SOUTH AUSTRALIA'S STRATEGIC PLAN 2011

The Board has a role to play in achieving South Australia's Strategic Plan (SASP), and contributes to the State Government's broader strategic priorities to: create a vibrant city, safe communities and healthy neighbourhoods; and every chance for every child.

In particular, the Board contributes to eight of the 100 targets that make up the plan.

Target 1 *Urban spaces: Increase the use of public spaces by the community and Target 99 Cultural engagement—institutions: Increase the number of attendances at South Australia's cultural institutions by 20% by 2014*

The Botanic Gardens of Adelaide has approximately 1.7 million visitors a year, making it South Australia's most visited cultural and scientific institution. Further, the Gardens conducts a raft of targeted activities each year bringing people from all walks of life and all ages into the Gardens who would not necessarily makes use of the State's public spaces.

Target 3 *Cultural vibrancy—arts activities: Increase the vibrancy of the South Australian arts industry by increasing attendance at selected arts activities by 150% by 2020*

Each year the Gardens has established itself as a venue for arts activities, in particular exhibitions and performances. Its alliances with major arts events, such as WOMADelaide, the Fringe, Come Out and South Australian Living Artists (SALA) festivals, and with cultural bodies, such as the Art Gallery of South Australia, Windmill Theatre and JamFactory, further add to its contribution to the State's cultural vibrancy.

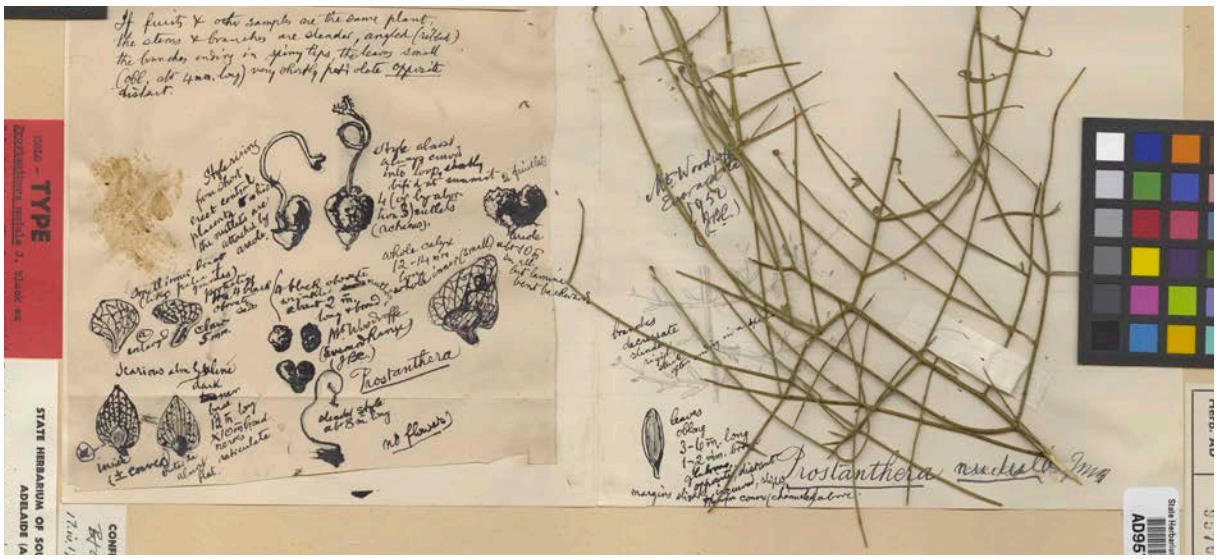
Target 8: *Tourism Industry: Increase visitor expenditure in South Australia's tourism industry to $8 billion by 2020*

Every great city has a great Botanic Garden and Adelaide is no exception. It is the first international institution outside of America to be accredited by the American Alliance of Museums, signifying the excellence of its Gardens, collections, and education and research programs. The inclusion of a visit to the Gardens as part of a tourism itinerary very often results in a prolonged stay in the State or region, with direct economic benefits. The multiplier effect from this activity, together with the significant investment in capital programs and services, contributes to economic growth.

Target 24 *Volunteering: Maintain a high level of formal and informal volunteering in South Australia at 70% participation rate or higher*

The number of volunteers in the Gardens and State Herbarium increases exponentially each year—in 2012–13 by as much as 30%. Volunteers contribute formally and informally across the gardens—in the State Herbarium, the South Australia Seed Conservation Centre, collections, the Friends of the Botanic Gardens of Adelaide and Adelaide Botanic Gardens Foundation, and education and social programs.

Target 31 *Chairs of boards and committees: Increase the number of women chairing State Government boards and committees to 50% by 2014*



Herbarium specimen of *prostanthera nudula* (naked mint bush)

The Board of the Botanic Gardens of Adelaide and State Herbarium is committed to the target of increasing to 50% the number of women chairing State Government boards and committees. Its Chair is a woman, and in 2012–13 the Board's membership was made up of three men and five women (including the Chair).

Target 69 *Lose no species: Lose no native species as a result of human impacts*

The State Herbarium and the Seed Conservation Centre directly contribute to lose no native species, through increasing knowledge, scientific research and ex situ seed collections of South Australia's native species.

Target 73 *Recycled stormwater: South Australia has the system capacity to harvest up to 35 GL of stormwater per annum by 2025*

The First Creek Wetland and Aquifer Storage and Recovery Project represents an exemplar stormwater capture, storage and reuse project that will secure water sufficiency for the Adelaide Botanic Garden and Botanic Park, and improve the quality of water in First Creek before it enters the River Torrens. The interpretive materials being developed as part of the project will have the potential to influence community receptivity to alternative water use practices, by providing an example of the ecosystem services provided by plants, and illustrating the challenges of water scarcity and the nature of innovative approaches to addressing it.

Target 86 *Psychological wellbeing: Equal or lower the Australian average for psychological distress by 2014 and maintain thereafter*

The Botanic Gardens of Adelaide provides a beautiful tranquil refuge that accommodates the need for recreation in a highly urbanised environment. As visitor surveys make clear, people visit the Gardens to view plants, walk and relax. The Garden's informal outdoor recreation (and facilities) combined with more formal activities contributes to psychological wellbeing. The Garden of Health, for example, opens up opportunities for visitors to learn more about the importance of plants to health and wellbeing and the Kitchen Garden program promotes the mental and physical wellbeing associated with growing, harvesting, preparing and sharing fresh produce.

Mount Lofty Botanic Garden

OPERATIONS & INITIATIVES - THE YEAR IN REVIEW

COLLECTIONS

The Botanic Gardens and State Herbarium is part of an international community of collections based cultural and scientific institutions. The Board is the custodian of a unique collection of living, preserved and cultural items that represent the botanical heritage of South Australia. The living collections make the three botanic gardens places of aesthetic appeal, inspiration and enjoyment. The preserved specimens of plants and seeds held in the Herbarium and South Australian Seed Conservation Centre are of international importance and drive research and landscape restoration programs. The cultural collections comprise art works, sculptures, photographs and memorabilia that connect people to the cultural heritage of South Australia. It's the intrinsic knowledge held within and about the collections that underpins the educational, historic, cultural and scientific programs. The initiatives set out under this theme outlines how the Botanic Gardens and State Herbarium is fulfilling its charter to demonstrate the central role plants play in helping to address the larger questions, such as health and wellbeing; food,and water and energy security; and climate change.

Collecting rare & endangered native species.

Objectives

- Enhance our collections
- Create and showcase beautiful gardens
- Make our collections accessible

Highlight achievements

- 61% of South Australia's threatened plant species conserved
- 175 million seeds held in the South Australian Seed Conservation Centre's seed bank
- 8 600 specimens added to State Herbarium collection
- 100% of trees assessed at the Adelaide and Wittunga gardens and assessment progressed at Mount Lofty Garden
- 284 trees planted across the Gardens
- Two major exhibitions with a climate change and cultural heritage focus attended by 39 000 people
- Master Plan completed for Wittunga Botanic Garden
- Civil construction completed for First Creek Wetland ASR project and planting of wetland plant species began
- Two focus collections reviewed
- Refinements under way to nine individual databases on track for integration

ENHANCE OUR COLLECTIONS

Safeguarding South Australian Native Flora

The significant work being undertaken by the South Australian Seed Conservation Centre and State Herbarium to safeguard native South Australian flora is part of efforts by botanical gardens worldwide to save plants at risk and those most useful for the future.

South Australian Seed Conservation Centre

In South Australia more than 800 native species are considered threatened in their natural environments and at least 25 species have become extinct since European settlement. The role of the South Australian Seed Conservation Centre is to help safeguard the State's flora from extinction.

In its work, the Centre is supported by scientist seed hunters who venture into the bush and outback to search out and collect seeds of species at risk, which are then stored in the conservation seed bank.

During 2012–13, the percentage of threatened plant species conserved in the seedbank reached 61%.

Focus areas for seed collection during the year were the Murray Darling Basin, Murray Mouth Coorong and Lower Lakes, the South East and Eyre Peninsula. Fifty-three seed collections were added from these areas, including 27 threatened species, 16 of which were new to the seed bank.

The seeds were conserved in the seedbank in optimum conditions, and germination experiments and storage protocols for each species will progress in 2013–14.

The Centre is a partner in the Australian Seed Bank Partnership—a national effort to conserve Australia's native plant diversity—to which it contributes considerable knowledge, experience and resources.

In 2003 the Botanic Gardens of Adelaide in partnership with the Royal Botanic Gardens Kew Millennium Seed Bank (United Kingdom) embarked on the SACRED Seeds Project (an acronym for the South Australian Collection of Rare and EnDangered Seeds).

The aim of this project is to collect and store seed from native plant species—at least 90% by 2020. To date, 1 400 native South Australian plant species have been collected and banked, including more than 400 threatened species.

As part of the work of the Botanic Gardens to undertake research on restoring and rehabilitating degraded environments, the Centre worked on a number of projects in collaboration with community nurseries to do more extensive research on species that are notoriously difficult to germinate, such as the Epacridaceae, Lomandraceae, Polygonaceae, Rhamnaceae and Santalaceae families. This research will enable a higher level of biodiversity to be achieved on restoration projects.

Further, in collaboration with the Mount Lofty Botanic Garden Nursery, more than 3 000 seedlings of over 30 native plant species were provided to restoration and revegetation programs in the Woorinen District, South East Region, Eyre Peninsula and the Murray Darling Basin.

State Herbarium

The State Herbarium is the key centre for knowledge and information on South Australia's native and naturalised plants, algae, fungi and lichens. It is internationally recognised for its research and advisory roles in plant systematics.

The ongoing work of the Herbarium, with support from and collaboration with the South Australian community, maintains this important historical and reference collection. These collections continue to be used in the discovery of new species, in analysis of changing climatic conditions and as evidence for changing diversity. Additionally, they are used as a guide to detect new weed incursions and to understand the distribution of species within South Australia.

Field research

During the year, an additional 8 600 specimens were added to the State Herbarium collection. Further, 549 records were added to the Herbarium specimen database to bring the total computerised specimen records to 722 980. State Herbarium Collections statistics are set out below.

Taxonomic revisions that examine collections from Australian and overseas herbaria help with understanding knowledge about Australian plant genera and families. Revisional studies published or being undertaken by the State Herbarium over the last 20 years have produced increases of 10% to 600% in species recognised within the groups studied. These studies have contributed significantly to the recognition of 1 000 additional vascular plant species in South Australia over that period.

In protecting native plant species, significant work was undertaken during the year in collaboration with government agencies and community groups to detect, identify and collect weeds and share information about them.

Specimens of 26 plants not previously recorded in South Australia were collected, identified and deposited in the State Herbarium and recorded as naturalised or questionably naturalised in the Census of South Australian Plants, Algae and Fungi.

Two species detected of particular concern were:

- *Nymphaea mexicana Zucc*—an invasive aquatic weed native to the United States and Mexico
- *Fraxinus ornus* L—potentially a serious weed threat if not controlled nationally and internationally in the early stages of colonisation.

Approximately 109 name changes were recorded for South Australia's vascular plants during the year; of these, 32 were new native taxa and 28 new naturalised taxa. Some were the result of taxonomic revisions, with the names of known species changing because of a better knowledge of their circumscription. The need to update many names had been exposed by the State Herbarium's input into the Australian Plant Census and by the ongoing work on the new edition of the *Flora of South Australia*. Chenopodiaceae and eucalypts were some of the major plants groups of which the nomenclature was up-dated. A further 254 synonyms (old names) have been added to the census database, assisting with making links between old and new taxonomies.

A survey was undertaken to map new occurrences of Buffel Grass (*Cenchrus* spp.) in the north Flinders Ranges–Olary area. During the survey, a significant arid zone introduced grass, *Eragrostis trichophora* was found to be much more widespread than previously known and relevant NRM agencies were alerted.

Fieldwork to sort out the identity of weedy groups was undertaken and included occurrence and distribution of *Salix* species and weedy Rosaceae. These are being followed up as treatments for the new edition of *SA Flora*.

The Herbarium worked with the Department of Agriculture, Fisheries and Forestry to prevent foreign weed species accidentally entering South Australia through overseas shipping terminals.

State Herbarium	2012/13	2011/12	2010/11	Average
Specimens identified [est.] (determined/confirmed)*	4 500	1 6000	4 400	8 300
Specimen Nomenclature updated* [est.]	2 000	500	3 500	2 000
Specimens mounted	7 242	1 0253	8 800	8 765
Database additions	549	11 188	12 805	8 181
Total in specimen database ADHERB	722 980	722 375	711 204	
AD specimens sent on loan	1 285	1 677	771	1 244
AD specimens returned from loan	4 036	5 784	3 342	4 387
Incoming loan specimens received	200	615	1 069	628
Incoming loan specimens returned	480	267	754	500
Exchange specimens sent	1 637	146	1 358	1 047
Exchange specimens received	1 055	973	1 310	1 113
Additional Specimens added to the collections	7 611	7 328	11 502	8 814
Estimated total specimens in State Herbarium collection	1 029 090	1 020 728	1 012 427	
Estimated replacement value of the State Herbarium collection	$66 918 392	$64 458 291	$62 351 000	
Calculated value per specimen	$65.03	$63.15	$61.59	

* This partially reflects the identification and validation activity linked to the specimen data capture, rather than those specimens distributed to staff for identification. Thus it also reflects specimens returned from loans that have been identified by the researcher.

Preserving the Mature Tree Canopy

Trees form the backbone of a botanic garden and in this the Adelaide Botanic Garden is no exception. Some of its trees are nearly 150 years old. The trees and shrubs and the special spaces created are not only a green oasis in the city, but also represent the glorious nature of the Gardens that bring such joy to visitors.

The Tree Study, undertaken in 2004, is one of the studies that inform the overall development of the Garden. It highlighted old collections and pointed to the need to constantly plant new trees so that the tree canopy is continually renewed.

To preserve the canopy across all three Gardens, in 2012–13 all trees were assessed at the Adelaide and Wittunga gardens and assessment progressed at the Mount Lofty Garden. Additionally, 284 trees were planted—65% of them in the Adelaide Botanic Garden.

As part of ongoing maintenance and visitor safety management, an independent arborist audited the recommendations of the 2004 Tree Strategy. Accordingly, the Adelaide and Wittunga Botanic Gardens were able to program tree maintenance activities.

A colony of grey-headed flying foxes that had established in Adelaide Botanic Garden in 2011 moved to Botanic Park in 2012, and there is now a colony of approximately 400.

If allowed to establish in large numbers they can cause extensive damage to the tree canopy and, in some cases, the death of trees in which they roost. As flying foxes are a protected species, the Garden is working collaboratively with DEWNR and other government agencies towards achieving the long-term goal of removing the colony from Botanic Gardens land. This is to ensure the historic, scientific and cultural value of the Gardens landscape is preserved.

American Alliance of Museums

The Botanic Gardens of Adelaide and State Herbarium achieved accreditation by the American Alliance of Museums (AAM) in 2010.

AAM accreditation is a mark of distinction, reinforcing integrity, authority and international standing. It is similar to quality assurance accreditation in that it ensures organisational best practice in every area of operation to promote long-term sustainability.

Reaccreditation, scheduled for 2020, involves a constant process of review to ensure the rigorous maintenance of the same high professional standards in collections management and continual institutional improvement. During the year activities in this regard included a number of reviews, including internal operations, collection policy, two focus collections and volunteer processes reviews.

Collections Development

Art, science and nature are fundamental to the web of life and a founding principle of the operations of the Botanic Gardens of Adelaide and State Herbarium, expressed through its collections—Living, Preserved and Cultural.

The Gardens continually draws these threads together in collaboration with the arts community. The idea: to foster creative interpretations that promote new appreciation and understanding of the great beauty and value of plants and their contribution to the world.

In 2012–13, two major exhibitions and a research project (set out in more detail later in this report) were exemplars of this exploration between art, science and nature.

WOOD: art design architecture (in conjunction with the JamFactory) provided a uniquely creative opportunity to showcase and provide information about Australia's forest and wood products sector and the natural advantages of wood and its positive contribution to reducing the effects of climate change.

Paper, Ink and Ochre (in conjunction with the Art Gallery of South Australia) presented a selection of works from the Art Gallery's Indigenous works on paper collection, and celebrated the role of art in sharing cultural knowledge of plants, animals and country.

Planning for *The Botanic Garden: Photographic Relation and Exchange*, a PhD research project supported by the Botanic Gardens commenced. It, will culminate in the installation and assessment of an exhibition in the Santos Museum of Economic Botany later in 2013.

Herbarium plant research

CREATE & SHOWCASE BEAUTIFUL GARDENS

Wittunga Garden Master Plan

The Collections Policy provides the framework for the Botanic Gardens and State Herbarium to continue as a great botanic garden which, with expertise applied, is an inspirational place for South Australians and international visitors.

Located in the lower Adelaide Hills, the Wittunga Botanic Garden comprises 14 hectares of garden made up of waterwise plants from Australia and South Africa.

The Garden's natural setting is an asset valued by the community, as its shady lakeside lawns provide an ideal location for family gatherings and picnics. The Garden features brilliant displays of ericas and proteas in spring, plants from Kangaroo Island and Fleurieu Peninsula, a grey box forest and butterfly garden.

During the year the Master Plan for the Garden was completed, with the aim of enhancing the Garden's natural qualities and opening it up for the enjoyment of more South Australians.

Central to the recommendations is the need to practice and promote the resilient use of climatically suitable plant species, water resources and natural materials.

Established by Edwin Ashby in 1902, the Wittunga Garden opened to the public in the 1970s, and this Master Plan is the first formal plan to map out the future direction for its operation and function. Essentially, it outlines how best to exemplify the cultural and environmental importance of Wittunga to the community.

Wittunga Botanic Gardens

First Creek Wetland

The Botanic Gardens of Adelaide plays a lead role in promoting the development of green infrastructure and sustainable urban landscapes, providing environmental and horticultural education and community awareness of the importance of plants.

The focus of the SA Water Mediterranean Garden, for example, is a sustainable future through the use of waterwise plants. The Garden of Health centres on the importance of plants to health and wellbeing.

The First Creek Wetland and Aquifer Storage and Recovery (ASR) project is another major education-based collection, demonstrating to and inspiring the community on the value of water management.

Civil construction of the Wetland was completed in December 2012 and planting of wetland species started in October and will continue throughout 2013–14. It is expected that 60 000 plants will be planted over the next five years.

The installation of interpretive components also began and will continue through the first half of 2013–14.

Education programs—both onsite and online—were in development during the year, underpinning the unique opportunity the project provides to connect visitors with the critical role plants play in the water cycle and ecosystem. It will also illustrate the challenges associated with water security and innovative approaches to achieve it.

Jointly funded by the South Australian and Australian governments as part of the National Urban Water and Desalination Plan, the Wetland will divert stormwater from First Creek as it enters the Botanic Garden. It will combine natural and mechanical filtering before storing water, and subsequently recovering it from an aquifer 40 metres below ground. When the aquifer is fully functioning by 2017, the Gardens will secure water self-sufficiency in perpetuity, saving around 100 megalitres of potable water a year from the River Murray.

Two Focus Collections under the Microscope

The Gardens maintains 12 distinct focus collections, which are supported by the Board's Living Collections Policy. In reviewing two of the collections each year, the Board will have a blueprint for their management and development. In this, the broader aim is the capacity to use the knowledge contained within the collection so that it best fulfills its purpose and charter.

The 12 focus collections of the Botanic Gardens of Adelaide are:

- Dryland palms and cycads
- Rhododendrons
- Flowering trees
- Southern Hemisphere conifers
- South Australian indigenous flora
- Madagascan flora
- Roses
- *Victoria amazonica* and associated flora
- Charismatic plants within orchids, carnivorous plants, bromeliads, ferns, cacti and succulents and water plants
- Mediterranean garden flora
- Botanic gardens and ideas—how botanic gardens changed the world, including systems gardening, economic botany
- Perennial and herbaceous displays.

In 2012–13 the two collections reviewed were Southern Hemisphere Conifers and Rhododendrons.

The Garden's collection of Southern Hemisphere Conifers is arguably the largest ex situ collection in the world. These hardy tree species have significant potential for use in sustainable landscapes, and provided key evidence in the development of plate tectonics theory and the existence of the geologically ancient supercontinent, Gondwana. Today, the species is under considerable pressure in their natural habitats due to timber extraction, forest clearing and other human activities. In the four families (Araucariaceae, Cupressaceae, Podocarpaceae and Taxodiaceae), 26 of the 32 genera are represented in the collection. Overall the Gardens holds 100 named species, plus several cultivars and unidentified species.

The acidic soils and high rainfall conditions of the Mount Lofty Botanic Garden are ideal for growing and presenting Rhododendrons and there is the potential to produce the most significant display in Australia. There are now 180 species, sub species, forms and varieties of Rhododendron, many of which are wild collected and approximately one-third are listed within the Red List of Rhododendrons as either critically endangered, endangered, vulnerable or threatened. The focus for the collection is on hardy species that have relevance for interpretive stories of plant discovery and habitat loss.

Specifically, the reviews of these two focus collections resulted in an audit of the two collections and the identification of opportunities to enhance the displays, and better curate and interpret them.

First Creek Wetland, Adelaide Botanic Garden

MAKING OUR COLLECTIONS ACCESSIBLE

The Botanic Gardens of Adelaide currently works with multiple databases, and the aim of the Board is that by 2017 the disparate data sets will be integrated to provide users with a unified view. An overall perspective is becoming increasingly important to answering large-scale questions, such as global warming, invasive plant species and species depletion.

This work continued throughout the year and included entering data and enhancing content. Also, a number of databases were under refinement as a step closer to integration—a major undertaking given the magnitude and scope of the transition required.

The databases that capture the Gardens' living, preserved and cultural collections are:

Flora of South Australia

The *Flora of South Australia* website has become one of the main access points for information provided by the State Herbarium. In 2012–13, the website attracted more than one million page views, or 3 092 views a day—the high volume a testament to the value of this material to the community. The website provides access to the South Australian Census of Plants, Fungi and Algae, detailed species fact sheets for South Australian vascular plants and algae, as well as online identification tools. During the year the 5th edition family treatments continued to be made available online.

Adelaide Botanic Garden MyParx digital tour

Global Plant Initiative

The Global Plant Initiative (GPI) is an Australia-wide project coordinated by the Council of Heads of Australasian Herbaria (CHAH), co-funded by the Atlas of Living Australia (ALA) and the Andrew W. Mellon Foundation, to produce digital images of all Type Specimens (the original material upon which the plant name is based). GPI is focused on the digitisation of previously unpublished botanical material, which is made available for scholarly research purposes through the JSTOR Plant Science online resource "http://gpi.myspecies.info/" and "http://plants.jstor.org/". The project progressed during the year in the provision of equipment and resources, with the digitisation unit now fully operational, with 1000 type specimens scanned and databased.

Australia's Virtual Herbarium

Data collected by the State Herbarium was delivered to Australia's Virtual Herbarium, an initiative of the Council of Heads of Australasian Herbaria website, hosted by the Atlas of Living Australia (www.ala.org.au). Data delivered is continually updated and more than 700 000 records have been delivered. Ongoing databasing efforts include all new collections as they are accessioned into the Herbarium collection.

Australian Plant Census

The State Herbarium compiles a real-time online census of South Australia's plants, algae and fungi to summarise current taxonomic knowledge of these groups, their regional distribution and native or naturalised status. Authoritative data on conservation and declared weed status from external sources are also added. The Herbarium continued to make a significant contribution to the Australian Plant Census Working Group (and other related groups) during the year. The aim is to develop a single consensus summary of Australia's native and naturalised plants to facilitate delivery of state censuses and Australia's Virtual Herbarium. At the end of June the Australian Plant Census Working Group started to revise the last major family of vascular plants, Orchidaceae.

BG-BASE

BG-BASE is a PC-based database application written primarily to handle the information management needs of institutions and individuals holding living and/or preserved collections of biological material, including botanic gardens,

arboreta, zoos, herbaria, museums, libraries, university campuses, horticultural societies and private collections. The Adelaide Botanic Gardens is the 175th member of BG-BASE, which is in use at 184 sites in 28 countries. During the year plant records continued to be developed, and included cultural information.

Seeds of South Australia website

More than 100 species were added to the saseedbank.com.au website and new additions will focus on species from the Murray Darling Basin Region, thanks to the support from the Natural Resources Management Board. This shared knowledge is likely to have far-reaching impacts on the conservation and restoration of threatened plant communities.

The Catalogue of Plants

The Catalogue of Plants is a new search and research tool to more easily share information about the living collections with State Herbarium staff, Friends, guides and volunteers.

QR-Codes

QR codes, which are much like barcodes, provide in-depth information about plants directly to iPhones and android smart phones. The information can include the common name of the plant, the Latin name and pronunciation, zone information, size dimensions, bloom time, sun and soil preferences and direct links to articles and images of the plant.

Liberty

Liberty is a database for storing all of the Botanic Gardens of Adelaide's cultural collections—books, journals, slides, photographs so that people can go online and accessible to everyone. During the year work began on the process of digitisation and importing data.

Plant investigation

KNOWLEDGE

Botanic gardens and herbarium exist because of the community's need and desire to understand plants. In the Board of the Botanic Gardens and State Herbarium's current Strategic Plan, the development of plant knowledge is viewed as comprising three distinct but integrated elements: knowing 'our' living, preserved and cultural collections; enhancing the knowledge of South Australian plants; and learning from others. The unparalleled knowledge of researchers and horticultural staff underpins disciplined work of international renown in this regard. The Gardens also combines with external innovative thinkers, plant specialists and technicians and leading institutions to publish scientific papers and supervise the work of student researchers, which also contributes to providing botanically based solutions to current societal challenges.

Objectives

- Know our collections
- Enhance knowledge of plants
- Learn from others.

Highlight achievements

- 60 staff and volunteers trained in Living collections databases
- 20% of significant trees spatially mapped
- 40 research students supervised, from post-doctorate to undergraduate degree levels
- 111 scientific articles published, 72% peer reviewed
- State, national and international research collaborations
- More than 65 presentations at conferences and to staff and volunteers
- The Herbarium opened its doors to the community

KNOW OUR COLLECTIONS

Horticultural Database Training

BG-BASE records all information about plants in the Botanic Gardens, and the knowledge and understanding derived from it is one of the key elements that distinguishes a botanic garden from any other garden.

The training of staff and volunteers in the system has led to an improved understanding of plant records data held at the Botanic Gardens and, subsequently, improvements in records maintenance, research into plant nomenclature and the accessioning of new acquisitions. Across the Gardens there are more than 34 000 plants displayed.

For volunteers, in particular, their ability to access the Catalogue of Plants, which provides simplified search capabilities, is central to managing visitor enquiries and developing specialised tours and self-guided trails, which enhance visitor knowledge and appreciation of the beauty and diversity of plants.

During the year a comprehensive training program began for all staff and volunteers. To date, training had been undertaken by 60 participants and the training program complemented by refresher workshops that will continue in 2013–14.

Significant Trees Spatially Mapped

As part of the Botanic Gardens' quest to know more about its collections, it is undertaking a geo-spatial tree-mapping project. BG-BASE will hold the global positioning satellite (GPS) coordinates marking significant trees in all three gardens. To date, approximately 20% of significant trees have been mapped. The project is being undertaken in anticipation of the next generation of BG-BASE, expected in late 2013, which will enable volunteers (through the Catalogue of Plants) to provide the location of significant trees as well as botanical and cultural information.

The Botanic Gardens is undertaking this work in collaboration with BG-BASE Inc. to ensure the next generation of BG-BASE will meet not only the Botanic Gardens business needs, but also place it at the forefront of new positional and information-sharing platforms.

ENHANCE KNOWKLEDGE OF PLANTS & LEARN FROM OTHERS

Scientific Enquiry Advanced

The enhancement of plant knowledge was advanced through working collaboratively with universities and other research partners to gather knowledge about plants and in the publishing of scientific papers, monographs and cultural publications.

In 2012–13 the Botanic Gardens and State Herbarium supervised 40 research students in post doctorate, doctorate, masters and honours degree programs (see Appendix 6). This work was undertaken in collaboration with five Australian and two international universities.

Botanic Gardens and State Herbarium staff published 111 scientific articles and other publications, 72% peer reviewed. This is up significantly from the previous year—a 38% increase in the number of scientific articles and publications and a 14% increase in peer-reviewed articles.

This increase demonstrates a revitalisation in and renewed focus on scientific endeavour that is up with the best nationally and internationally. The quality of this work underpins the reputation and authority of the Botanic Gardens and State Herbarium in plant knowledge and research and its capacity to forge links with industry and secure competitive grants.

Exchanging knowledge across the organisation occurred through forums delivered by specialists from within the Botanic Gardens and externally. The fields covered ranged from digital strategies and seeds and weeds, through to urban design, strategic planning and plant conservation.

In 2012–13 there were 19 presentations by the Botanic Gardens and external specialists at staff forums, four presentations at Friends of the Botanic Gardens general meetings and a technical note in each Friends of the Botanic Gardens gazette. Additionally, staff gave 40 presentations on plant-related topics at conferences, symposiums and to other interested groups.

Herbarium in the Community

Just as the Gardens is accessible to the community, the Herbarium opened its doors during the year, through a community engagement and outreach program that incorporated a number of activities. They included:

- It's all about Plants—a monthly forum to share research activities among staff, honoraries and volunteers
- Tours of the Herbarium building and exhibits—as part of History SA's Open House Adelaide and Fascination of Plants Day (held in conjunction with the Royal Institution of Australia) and for Trees for Life volunteers and senior representatives of Biosecurity SA and South Australian NRM Boards.

Through these activities the State Herbarium worked with a range of educators, the community, conservation and land management organisations, government departments and professional bodies.

The Bush Blitz survey is another example of collaborative activity which, in this case, involved teams from the Herbarium, the South Australian Museum, the University of Adelaide and other interstate specialists as well as volunteers from Bush Blitz partner organisations and staff from the Nature Foundation. The survey, at Hiltaba Station in the western Gawler Ranges and Gawler Ranges National Park, was part of the Bush Blitz species discovery program of the Australian Government's Australian Biological Resources Study. The aim of the program is to make a significant contribution to the knowledge of bush flora and to the pool of knowledge of the State's plant biodiversity. Its focus is on species discovery/taxonomy and includes support for fieldwork, specimen curation, follow-up taxonomic research and reporting. The Herbarium team sampled 134 sites, collecting 782 plant specimens and recording a further 524 plant sightings. The collections were supplemented by 136 vascular plant tissue samples for future DNA analysis. A total of 109 plant taxa were newly recorded. The survey resulted in revised species lists for both properties.

SHARING

The Botanic Gardens is South Australia's most loved cultural institution. Sharing a love and appreciation of plants reflects the Board's vision to connect people with plants. In the Board's current Strategic Plan, this theme encompasses: sharing plant knowledge, and 'our' gardens and 'our' stories. While the collections will always remain the foundation stone, and while it's important that collections knowledge is continually enhanced, it is equally important that this knowledge and 'our' spaces are shared in order for people to understand the significance of plants to life and to enjoy the beauty and tranquility they create. The Botanic Gardens and State Herbarium is widely recognised as the voice of plant-related matters in and for the state, trusted as a rich source of information. This is shared with the community through a raft of programs, events, interpretive material and educational activities in the community and online. Further, scientific papers, research collaborations and presentations provide leadership and advice on plant systematics and influence policy development to build more resilient and liveable landscapes.

Objectives

- Share our knowledge of plants
- Share our space and garden
- Share stories about our garden

Highlight achievements

- 40% of educational resources explicitly linked to the Australian Curriculum
- Green Infrastructure Program on track for evaluation in 2014
- Online access created and enhanced
- In excess of 120 000 people participated in public events
- Relationships maintained with plant societies
- Disability access trail built at Mount Lofty Botanic Garden
- Visitor survey results show 93% visitor satisfaction
- Interpretive materials developed connecting people with plants
- 50 000 school students participated in education programs

SHARE OUR KNOWLEDGE OF PLANTS

Schools Education Service

The Adelaide Botanic Garden Schools Education Service continued to deliver curriculum-linked learning programs, events and performances to South Australian schools throughout the year, using the Garden as a living museum for learning about plants, people and culture.

The Education Service—a partnership between the Department for Education and Child Development (DECD) and the Botanic Gardens of Adelaide—is highly valued by both partners. Reflecting curriculum depth and best practice, the Schools Education program is developed and run by an Education Manager seconded from DECD.

In 2012–13, more than 50 000 students participated in the Education Service's programs. New technologies and booking options and professional development for teachers have created more flexible teaching opportunities. Teachers can download information from the Botanic Gardens of Adelaide Education website, utilise the Botanic Gardens mobile tablets or book the Education Manager for a program.

More than 180 teachers attended professional development sessions. These training workshops continued to update teachers skills and knowledge of the Botanic Gardens and how to link education programs back to the Australian Curriculum.

Curriculum-linked learning programs, events performances and activities during the year included:

- Two new trails were added to the suite of 35 investigation trails for schools—the Food Trail and Plant and Insect Interactions Trail.
- World Environment Day (WED) attracted approximately 2 500 students, teachers, presenters and parents. Hosted by 14 community and government organisations, WED in the Gardens is the largest celebration of the event in the State.
- Three themed weeks were conducted which shared stories about plants and the Adelaide Botanic Gardens with 750 students.
- The Signposting the Future Environment Exhibition in the SA Water Mediterranean Garden (29 April–19 July) was part of the Come Out Youth Arts Festival, and attracted students, parents and local and international visitors.
- A schools' education kit was developed for the touring *WOOD: art, design, architecture* exhibition, for the use of students in South Australia and on tour in regional and metropolitan centres around Australia.

Green Infrastructure Project

Green infrastructure—the network of green spaces and water systems that deliver multiple environmental, social, and economic values and services—is a focus for the Botanic Gardens for its potential to influence the liveability of the urban environment.

The Green Infrastructure Project grew out of the highly awarded Sustainable Landscapes Project, which began in 2004. Its vision: South Australians living in healthy, resilient and beautiful landscapes that sustain and connect people with plants and places.

The project, hosted by the Botanic Gardens, is a collaborative partnership between DEWNR, Renewal SA, the Department of Planning Transport and Infrastructure and the Adelaide and Mount Lofty Ranges NRM Board.

Over the past year, the project has been instrumental in raising awareness of Green Infrastructure through the development and distribution of information and resources to facilitate more sustainable outcomes for communities and by various presentations, lectures and workshops. Further, the development of the Green Infrastructure evidence base, *Green Infrastructure: Life Support for Human Habitats—the compelling evidence for incorporating nature into urban environments* provides resource information for State and local government, the development industry, planners and policy makers.

Plant Selector+, and extension and upgrade of the Landscapes Alive Plant Selector, was another important initiative. It includes more than 400 trees suitable for various urban applications, with detailed information about each tree's appearance, growth requirements, behaviour, purpose and suitability in urban environments. It was achieved with the assistance of SA Water and the Local Government Research and Development Scheme. Audiences for this information are local government, developers, landscape designers, the nursery and garden industry and urban residents. The project's success will be evaluated in 2014.

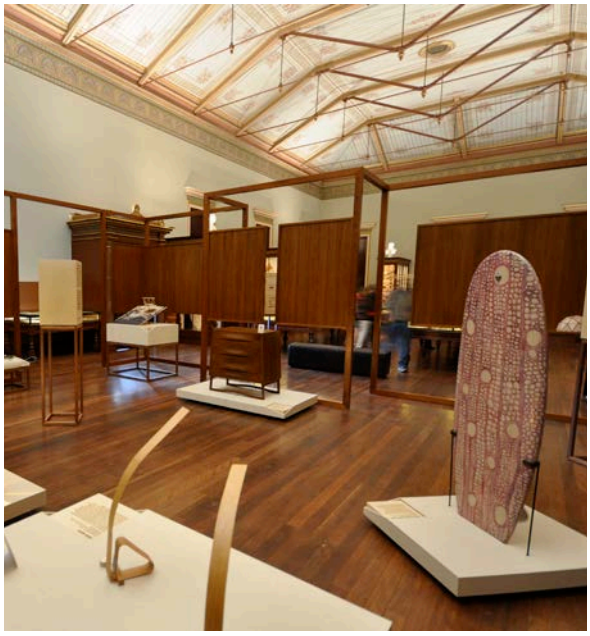
Online Access

The work achieved during the year to develop the databases and update the collections information contained within them is ultimately to be able to provide plant-based information to the broader community. But it is only through the Botanic Gardens of Adelaide and State Herbarium migrating to and adapting new technologies that it will remain at the forefront in its capacity to not only share the more technical and scientific aspects of its work, but also promote a love and appreciation of plants and address the larger questions. Whilst it is important that the Botanic Gardens maintains excellence in maintaining and showcasing its living, preserved and cultural collections, it is of equal importance that its knowledge is accessible.

Further to the online databases outlined in the Making Our Collections Accessible section the following initiatives were also undertaken:

- More than 100 species were added to the saseedbank.com.au website and new additions will focus on species from the Murray Darling Basin Region, with support from the NRM Board. This shared knowledge is likely to have far-reaching impacts on the conservation and restoration of threatened plant communities. The high-quality images produced were the result of the purchase in early 2013 of a state-of-the-art Leica microscope.

- MyParx tours of the collections were made available in all three gardens, 88 videos were uploaded on to YouTube and experienced a total of 1400 views, and the Facebook presence achieved an average weekly reach of approximately 25 000 people.



Wood exhibition, Santos Museum of Economic Botany

SHARE OUR SPACE & GARDEN

A wide range of events and exhibitions brought in excess of 120 000 people to the Gardens in 2012–13.

SALA Festival exhibition 1 -27 August 2012

The Adelaide Botanic Garden was again a venue for the South Australian Living Artist (SALA) Festival. During August 2012 the Gardens hosted the joint exhibition *conversations in ellipsis* in partnership with SA Gallery and FELTspace Gallery. Works were displayed at the Francis Arbour, Australian Forest, Palm House and Murdoch Avenue.

Adelaide Youth Orchestra concert 2 September 2012

The Adelaide Youth Orchestra held a free one-hour concert in the Adelaide Botanic Garden. Held at the Schomburgk Pavilion, the concert consisted of 12 performers from the orchestra showcasing popular classics.

Museums Australia Conference 24-28 September 2012

The Gardens participated in this conference held at the University of Adelaide, providing a session on sharing Indigenous knowledge and highlighting the work of the *Replant* and *Djalkiri* exhibitions.

Paper, ink & ochre exhibition 15 September 2012 -27 January 2013

The exhibition in the Santos Museum of Economic Botany presented a selection of works from the Art Gallery of South Australia's Indigenous works on paper collection and was programmed to coincide with the National Museums Australia conference held at the University of Adelaide. The exhibition included early works on card collected from across Arnhem Land mid-last century and more recent explorations in printmaking. Information about the exhibition was shared through curator's tours and various presentations and a MyParx tour for iPhone and android smart phones.

Parklife 7 October 2012

Parklife, the music festival in Botanic Park, drew an audience of 8 500. As part of the event, the Gardens is the beneficiary of the *Plant life for Parklife* initiative, where patrons can opt to give a donation when buying their tickets

Wheat crop planting 23 October 2012

As part of celebrations for the Year of the Farmer (in recognition of the knowledge, science and hard work that goes into food production), the Botanic Gardens of Adelaide planted a wheat crop of 425 square metres as a demonstration plot in Adelaide Botanic Garden. It provided city dwellers with the opportunity to see a crop close hand and observe its progress from seed to harvest. Bread baked from the flour will be exhibited at the 2013 Royal Adelaide Show.

Autumn Garden Blitz at Mount Lofty Botanic Garden 3 November 2012

Following the success of previous Garden Blitz events, 47 volunteers participated in the autumn Garden Blitz in 2012–13, with maintenance tasks focusing on areas in the ATCO Heritage Rose Garden, Magnolia Gully and the Rock Garden.

Moonlight Cinema 27 November 2012-17 February 2013

The three-month Moonlight Cinema season over summer featured new, classic and some cult films six nights a week in Botanic Park. In excess of 30 000 people enjoyed the beauty of the Park, the setting sun and the stars as the backdrop to the Cinema.

International Volunteer Day 5 December 2012

Volunteers of the Gardens, Herbarium and Foundation were recognised for their support of the Gardens with a

Demonstration wheat crop, Adelaide Botanic Garden

Wood exhibition 15 February-7 April 2013

The Gardens partnered with JamFactory to host the *WOOD: art, design, architecture* exhibition. The exhibition was launched at the JamFactory, where the majority of works were on display, while the Gardens hosted a concurrent exhibition. The exhibition ran in both locations (at the Museum of Economic Botany 5 February–7 April) before going on tour with the accompanying schools' education kit.

Tomato Festival 2 3-24 February 2013

The inaugural two-day Tomato Festival, held in partnership with The Digger's Club and Botanic Gardens Restaurant, attracted 2 000–3 000 visitors to a program of events, which included gardening workshops, a tomato taste test, kids' activities, the Great Tomato Debate, cooking demonstrations, an art and tomato ephemera exhibition in North Lodge, special interest talks and the Tomato Sauce Challenge.

Adelaide Fringe Wind in the Willows as told by Mr Badger 15 February-18 March 2013

Splash Theatre returned to Adelaide Botanic Garden during the Fringe Festival with the popular children's show *Mr Badger*.

Adelaide Fringe Forestal exhibition 15 February-18 March 2013

Local emerging artist Nic Brown presented Forestal, a temporary public artwork. *Forestal* comprised salvaged red gum logs and branches that sit, lie and linger in the Mallee Section of Adelaide Botanic Garden. The tree limbs were variously coated, painted with landscape imagery to evoke remnants of former lives.

Wittunga Under the Stars 1 March 2013

The Lions Club of Blackwood again hosted their annual community music event at Wittunga Botanic Garden, with approximately 1 500 people attending the jazz and contemporary music concert.

WOMADelaide 8 – 11 March 2013

WOMADelaide was held again in Botanic Park over four days and three nights, with approximately 80 000 people attending.

Spring Garden Blitz at Mount Lofty Botanic Garden 4 May 2013

The Spring Garden Blitz at Mount Lofty Botanic Garden attracted 50 volunteers despite wet and wintery conditions. Volunteers assisted Gardens' staff with daffodil planting along the new disability access trail, cleaning and general maintenance of the Woodland and Rock Garden and the spreading of mulch from the upper car park to the camellia beds.

Barley crop planting 7 May 2013

A barley crop was planted in the Adelaide Botanic Garden to celebrate the knowledge, science and hard work of food producers, to promote the important role of farmers and to encourage the community to consider where their food comes from. The South Australian Research and Development Institute and Coopers Brewery supported the crop.

Fascination of Plants Day 18 May 2013

The Gardens partnered with the Royal Institute of Australia (RiAus) and coordinated activities for Fascination of Plants Day, an international day to promote the importance of plants and plant science and the role of plants in environmental conservation. Activities were free and booked to capacity, and included guided walks and tours of Adelaide Garden and Herbarium and children's activities.

World Environment Day 5 June 2013

Approximately 2500 school students visited Adelaide Botanic Garden for South Australia's largest World Environment Day event, with 28 information stations hosted by 14 community and government organisations. Environmental themes included water sustainability practices, kitchen gardening, conservation, urban biodiversity, Indigenous culture and native animals. A rainforest audio trail in tablet format with Bluetooth headphones was successfully trialed with primary school students.

External Collaborations

During the year Gardens' staff maintained relationships forged with external societies and horticultural industry bodies within South Australia and nationally, adding value to collection curation. In 2012–13 this included:

- Australian Carnivorous Plant Society
- Australians Camellia Research Society (Adelaide Hills Branch)
- Australian Plant Society (SA Branch)
- Australian Rhododendron Society
- Bromeliad Society of South Australia
- Cacti and Succulent Society of South Australia
- Dahlia Society of South Australia
- Fern Society of South Australia
- Herb Society of South Australia
- Heritage Rose Australia
- Lilium Society of South Australia
- Nursery and Landscape Industry of South Australia
- Palm and Cycad Society of South Australia
- Rose Society of South Australia & National Rose Trial Council
- South Australian Branch of the Mediterranean Garden Society
- South Australian Geranium and Pelargonium Society
- State Flora.

Amenity Improvements

Upgrades to visitor facilities at Adelaide Botanic Garden progressed with a refurbishment of the Classground toilets, including improved lighting, new fixtures and repainting of the facilities. LED lighting was installed within all facilities and additional LED lighting was installed in Botanic Park to Frome Road.

Additional minor upgrades to visitor facilities at Mount Lofty and Wittunga Botanic Gardens were programmed for 2013–14.

Tomato Festival cooking demonstration, Adelaide Botanic Garden

Two new pedestrian paths constructed in Adelaide Botanic Garden have fulfilled a number of purposes—enhanced the visitor experience, addressed worn 'desire' lines to and from the kiosk area, reduced compaction from vehicle and/or pedestrian movement under significant trees and improved safety.

The construction of a Class 1 disability access trail at Mount Lofty Botanic Garden is progressing and is scheduled for completion in 2014. The aim of the project is to create a trail across the difficult terrain that provides the opportunity for people with limited mobility to experience the beauty of the garden and the diversity of plants on show.

SHARE STORIES ABOUT OUR GARDENS

Beyond the Gardens Walls

The focus to interpret plant knowledge so that it is accessible to the broader community continued during the year. The following projects feature as initiatives that reached into the community, taking knowledge beyond garden walls, in particular the plants and their relationship to water and food security, health and wellbeing and culture.

- The First Creek Wetland ASR Project will provide a living demonstration of the critical role plants play in the water cycle and the ecosystem. The project will also illustrate the challenges associated with water scarcity and innovative ways to address it

This 'story' will be developed through interpretive material—a major focus during the year. The idea: for the community to take away important messages about water sustainability and potentially adopt water-saving measures in their own homes

Indigenous consultation has been a major component of the project to demonstrate the use and significance of Indigenous plants.

- The SA Water Mediterranean Garden, which showcases plants from the five Mediterranean climates around the world, continued to highlight to the community how careful plant selection and thoughtful garden design can be used to create stunning garden displays that also use water wisely.

- The Kitchen Garden program has become a central resource for individuals and community groups looking for help with kitchen gardening.

The program supports the development of kitchen gardens in homes, schools and communities. Its aim is to encourage improved food literacy and increase consumption of a wide variety of fruit and vegetables as part of a healthy diet, thus improving the health and wellbeing of South Australians

As well as working with organisations that have an involvement in healthy eating during the year, the program supported the development of a number of community gardens. The Kitchen Garden website experienced an exponential increase in hits each month.

Funding of a Kitchen Garden at the Adelaide Botanic Garden is a priority of the Adelaide Botanic Gardens Foundation.

- The touring *WOOD art design architecture* exhibition showcased 28 outstanding projects by contemporary Australian artists, designers and architects. It represents a cross-section of current creative practices and relationships to this versatile natural material. The accompanying publication included essays and insights into each project and highlight the significance of wood in lives today

The exhibition (with the publication) is on tour in regional and metropolitan centres around Australia. The associated schools' education kit was developed by the Botanic Garden and will be used by students at exhibition locations.

- The School Holiday Program continued to provide high quality nature-based learning throughout the year, generating enthusiasm among children and, subsequently, their families, for the Gardens and the natural world. The program offers school children fun and creative ways of engaging with plants in various ways, using science, art and performance to encourage learning. In 2012–13, the program offered 47 individual events to a total of 1 749 children.

OUR ORGANISATION

As well as being a much loved and trusted institution, the Botanic Gardens has been at the forefront amongst world leaders in its scientific endeavours; in its development of strong corporate, community and philanthropic partnerships; and in continuing to apply the highest horticultural, curatorial and business practices. In maintaining this authority, standing and longevity, this theme incorporates the three elements of developing a diversified income stream and a world-class paid and volunteer workforce, and utilising current business technologies. The following initiatives outline how the Board will retain excellence in its business operations so that future generations can benefit from the beauty, knowledge and scientific integrity of the Gardens and Herbarium.

Objectives

- Develop a diversified and sustainable income stream
- Utilise efficient business technologies and processes
- Ensure a world class paid and volunteer workforce

Highlight achievements

- 24 staff trained to teach in the Australian Centre of Horticultural Excellence, and Certificate III in Horticulture training began
- Volunteers contributed 45 560 hours, an increase of nearly 30% on the previous year
- Zero lost-time injuries recorded for second consecutive year, as part of WH&S action plans
- Adelaide Botanic Gardens Foundation set targets for three priority projects
- First corporate volunteering event conducted
- 90% of recommendations for continuous improvement implemented
- Water sourced from non-mains sources exceeded 50%
- Funding for solar panels secured
- Carbon footprint reduction on track for 50% by 2017
- 90% of internal review recommendations implemented

DIVERSE INCOME & PRODUCTIVE PARTNERSHIPS

Aside from the annual funding it receives from the South Australian Government, the Botanic Gardens and State Herbarium relies on generous support from business, government agencies, individuals and the community. The Board attributes many of its achievements over the past year to its partners: sponsors, State Government agencies, the Adelaide Botanic Gardens Foundation and the Friends of the Botanic Gardens of Adelaide.

Major Sponsors

Santos Limited
SA Water Corporation
WorkCoverSA

Sponsors

ATCO Company
Orlando Wines
Urban Renewal Authority
Adelaide and Mount Lofty Ranges NRM Board
Coopers Brewery
Neutrog Fertilisers
Bank SA
Haigh's Chocolates

The Board also works closely with State Government agencies, and acknowledges and thanks:

- DEWNR and Department of Planning, Transport, Energy and Infrastructure (DPTEI)—for continuous support, advice and assistance with the Board's capital works program
- DECD—for providing a seconded Education Officer to manage the Board's schools outreach program
- Health SA—for funding support for the Community Kitchen Garden program and coordinator
- TAFE SA—in partnering with the Botanic Gardens in the groundbreaking Australian Centre of Horticultural Education.
- The Board is proud to be associated with Santos, which continued its valuable contribution to the Gardens with the following initiatives:
    - The exhibition program at the Santos Museum of Economic Botany

- The Kitchen Garden program
- Conservation of threatened species and landscape reconstruction through the South Australian Seed Conservation Centre

The Board also acknowledges its alliance with WorkCoverSA, SA Water and ATCO; alignments that enable the community to enjoy the benefits of three of the Garden's iconic interpretive demonstration gardens—the Garden of Health, SA Water Mediterranean Garden and the ATCO Heritage Roase Garden. Through the support of these organisations, combined with interpretive displays and educative programs, visitors gain a greater appreciation and understanding of the role and importance of plants in maintaining health and wellbeing and living more sustainably.

International Partnership

A Memorandum of Understanding (MOU) between the Botanic Gardens of Adelaide and the national parks commission in the South American nation of Guyana, signed in May 2013, enhances the Gardens' ability to share its knowledge and experiences on a global scale. It also reconfirms the enduring partnership between Adelaide's Botanic Gardens and Guyana, which extends back to 1868 when the Garden's second director, Richard Schomburgk guided the planting of Guyana's national flower, the Amazon Waterlily—one of the jewels of the collection—at Adelaide Botanic Garden.

The initiative fits with the responsibility of botanic gardens around the world to inform their communities about the value of plants, their conservation and their importance to a sustainable future.

The Australian Centre of Horticultural Excellence

The Australian Centre of Horticultural Excellence is a strategic initiative of the Botanic Gardens of Adelaide in partnership with TAFE SA, the largest provider of vocational education and training in South Australia—delivering more than 1 000 courses to an average of 80 000 students per year.

The initiative will contribute to the development of a skilled workforce for the horticultural industry. The distinguishing feature of the program is that students gain qualifications while working with the Botanic Gardens' internationally significant plant collections during the practical components of their course work and learn from expert Botanic Gardens' staff. As a result, training will be hands-on, practical and provide work-ready experiences.

The program will extendsfrom a Certificate II or III in Horticulture to a Diploma in Horticulture and master classes. Topics covered include landscape design, permaculture, arboriculture, conservation and land management and allied disciplines.

During the year, 24 Gardens' staff undertook training in readiness to teach in the program, which is expected to enroll around 60 participants by 2013–14. Additionally, training in the Certificate III began in February 2013, and planning was under way for all other courses—Certificate II was completed (for commencement in July 2013) and the Diploma was under way (for commencement in 2014).

Master Classes for the general pubic will commence from September 2013, and additional qualifications and specialist master classes for professionals, para-professionals and skilled practitioners will be added to the program in coming semesters.

In 2014 all accredited courses and Master Classes will be running concurrently.

Adelaide Botanic Gardens Foundation

Although our Gardens receive annual funding from the South Australian Government, they also rely on the generous support from the community, individuals and business. Philanthropic support is critical to enhance facilities and services provided by the Gardens for the community and to support research in new fields of conservation, ecology and botany.

The role of the Adelaide Botanic Gardens Foundation is to generate income for the Board of the Botanic Gardens and State Herbarium by building corporate and private philanthropic support. The Adelaide Botanic Gardens Foundation raises and administers community funds through its Endowment Fund for current Gardens' projects and for the long-term financial security of the Gardens. The Foundation is the trustee of the not-for-profit Adelaide Botanic Gardens Fund, which has tax-deductible gift recipient status.

In 2012 - 13, the Board listed 12 important programs requiring financial support as part of the Plant a Seed Fundraising Campaign. The Board identified three priority fundraising projects for the Foundation—the Kitchen Garden, the South Australian Seed Conservation Centre and the Endowment Fund.

Endowment Fund

Contributions to the endowment fund, including bequests and legacies, are crucial for the long-term benefit of the Gardens with capital held by the Foundation and interest distributed annually towards Gardens projects. The Endowment Fund will enable the Foundation to assist in protecting the Gardens' rich botanical and built heritage, while furthering vital conservation, horticultural, scientific and education programs.

The Kitchen Garden

An on-site kitchen garden located in Adelaide Botanic Garden will act as a demonstration kitchen garden for 400 000 school children, teachers and families over the next three years to establish an edible garden in their school and/or home. The Kitchen Garden will deliver 200 on-site edible gardening classes to more than 5 000 school children each year. These workshops will be led by a horticulturalist, with the assistance of classroom teachers, to showcase how to grow and harvest winter and summer produce for school kitchen gardens and families at a low cost. A horticultural educator will provide teachers with the training and Australian school curriculum education resources they require. Teachers will be provided with regular email newsletters and training resources as part of their professional development program. Teachers and families will also have access to an online resource centre so they can plant their own kitchen garden and continue the learning at home or school. The fundraising goal for this program is $250 000 per year.

South Australian Seed Conservation Centre

The Botanic Gardens of Adelaide is a partner to the Millennium Seed Bank Project— an international conservation effort involving more than 100 groups throughout 50 countries. The project is coordinated by the Royal Botanic Gardens Kew Millennium Seed Bank, located in the south east of England. The aim of this project was to conserve 10% of the world's flora by the end of 2010, by collecting and storing seeds. The Botanic Gardens of Adelaide achieved this target two years ahead of schedule. To date, the South Australian Seed Conservation Centre has collected and stored seed from more than 1 500 of South Australia's native plant species (more than 40% of the State's flora). The Foundation needs to continue its fundraising efforts to safeguard South Australia's 3 500 native plants, of which 800 are at risk of becoming extinct. To date, 61% or 488 of South Australia's native plants at risk of becoming extinct have been collected and stored. With further financial support and a commitment to fundraising efforts, the goal is to bank 90% of these species by 2018. The fundraising goal for this program is $250 000 per year.

L to R: Hon. Robert M Persaud, Minister of Natural Resources and the Environment,
Damian Fernandez, Commissioner for the Protected Areas, Commission of Guyana,
Hon. Ian Hunter, Minister for Sustainability Environment and Conservation (South Australia),
Stephen Forbes, Director Botanic Gardens of Adelaide.

With regret, the Foundation noted the resignation of Serena Williams as Manager. The Foundation acknowledges Serena's commitment, dedication and enthusiasm for the Gardens and in particular implementing the Plant a Seed philanthropy campaign. Serena made an important contribution to setting the future direction for the Foundation's fundraising strategy and for this the committee is grateful.

The Foundation noted the resignation of committee member Helena Jenkinson and recognised her dedication and outstanding service to the Foundation. In 2012 the Foundation welcomed Bodo Jensen to the committee.

In 2013, the Botanic Gardens of Adelaide appointed a new head of development, Tarnya Van Driel to oversee communications, events, sponsorship and fundraising operations. The integration of Foundation fundraising activities and Botanic Gardens sponsorship, events and communications functions is essential to creating alignment for the future success of a financing plan.

Foundation Committee
Mr David Knox (Chair)
Ms Jan Angas (Deputy Chair)
Mr Tom Verco (Treasurer)
Mr Stephen Couche
Mr Bodo Jensen
(President, Friends of Botanic Gardens of Adelaide)
Ms Julie Mitchell
Mr Ian Stirling

Ex Officio
Mr Stephen Forbes, Director of Botanic Gardens and State Herbarium

The Foundation gratefully acknowledges the generosity of all our donors and sponsors:

Francis Principal
Santos

Schomburgk Circle
BHP Billiton
SA Water
Thyne Reid Foundation
WorkCover SA.

Morley Circle
Coopers Brewery

Ambassadors

The Foundation thanks the many people that champion the Gardens, including its Ambassadors who share their energy and passion for the Foundation's cause of *connecting people to plants*. During 2013 and beyond the Foundation looks forward to working more closely with each of these dedicated people and, in particular, launching the 'edible kitchen garden' for more than 400 000 school children and people to experience the joy of getting their hands dirty in edible kitchen gardening workshops.

Michael Keelan
Maggie Beer
Michael Wheldon
Daniel Lutz
Simon Bryant

Friends of the Botanic Gardens of Adelaide

In 2012–13 the Friends of the Botanic Gardens supported a number of projects of the Botanic Gardens and State Herbarium and a wide range of visitor services that would not otherwise have been possible.

Membership remained strong (900) and active throughout the year, and activities included exhibitions and workshops, guest lecturers on many things botanical, and plant propagation and plant sales (on a monthly basis).

During the year the number of Garden Guides was boosted to 55, as trainees qualified as Guides. Monthly trails developed by the Guides were distributed in the three Gardens and published on the Friends website. A total of 4 070 visitors were taken on guided walks, including Anniversary Walks in celebration of the 30th anniversary of the first guided walk in the Gardens.

Special walks were conducted in support of the Tomato Festival, April Fossil Month, Fascination with Plants, Planet Ark Tree Day, Community Day and Palaeontology and History Month. Eighteen walks were conducted for visitors at the Government House Open Day in March.

See Appendix 10 for the full report of the Friends of the Botanic Gardens Inc.

ENSURE A WORLD-CLASS PAID & VOLUNTEER WORKFORCE

Ongoing Professional Learning

Over the past year the Botanic Gardens has placed emphasis on the training of staff to ensure a better understanding of the living, preserved and cultural collections; enhance plant knowledge; and share it with researchers, scientists, children, the community and tourists.

Initiatives included:

- Training in readiness to teach in the Australian Centre of Horticultural Excellence program
- Ongoing database training
- Staff forums delivered by specialists within the various areas of the Botanic Gardens' operations and external experts. Topics ranged from digital strategies and seeds and weeds, through to urban design, strategic planning and plant conservation.
- Presentations and attendances at state, national and international conferences
- Initiating and conducting seminars, such as the Green Infrastructure Travelling Seminar, with presentations from experts in areas such as urban vegetation, urban ecosystem valuation, health and planning and development.

During 2012–13, the Botanic Gardens of Adelaide and State Herbarium worked with DEWNR to ensure its volunteer operations met the Department's requirements. It also implemented its Botanic Gardens of Adelaide Volunteer Strategy 2012–14.

Additionally, both the Botanic Gardens and State Herbarium conducted reviews of their processes in order to establish more formalised frameworks for volunteer activities. The intention: to ensure the interests of volunteers aligned with what they did and that they received the appropriate training and support in doing it.

The subsequent single, consolidated and standardised systems and record keeping for registering and monitoring volunteer activity and achievement across the organisation underpinned efforts to create a community of enthusiastic volunteers operating within a happy and safe working environment.

The number of volunteers providing professional and expertise-based support for the Botanic Gardens increased by close to 30% in 2012–13—a total of 45 563 hours (up from 36 662 hours in 2011–12).

Existing and new volunteers provided support across the Gardens' operations—including the Visitor Information Centre, State Herbarium, South Australian Conservation Seed Centre, the Santos Museum of Economic Botany, Library, communication technologies, Schools Education and Kitchen Garden and horticultural programs.

Program Area
2012–2013 Volunteer hours

Botanic Gardens of Adelaide	11 628
Societies	710
Friends of the Botanic Gardens	22 770
Herbarium (including honorary research assistants)	10 455
	Total: 45 563

Volunteer activities included:

- Volunteers continued in the Herbarium with specimen curation, including the processing of specimens (packeting or mounting, labelling and incorporating into the collection), checking and updating nomenclature on vascular plants and the liverworts. The scanning of the Herbarium's past publications for eventual uploading online was also ongoing.
- Two Garden Blitz community volunteer events at Mount Lofty Botanic Gardens (May and November), attended by approximately 100 people. Focus areas included: the ATCO Heritage Rose Garden, Magnolia Gully and the Woodland and Rock Garden, and planting daffodils along the new disability access trail.
- A first-ever corporate volunteering event at which staff from Deloitte Touche Tohmatsu provided hands-on support in Mount Lofty Botanic Garden. In association, a corporate volunteering prospectus was developed and made available on the Botanic Gardens website. This corporate program will be promoted throughout 2013–14, initially with existing corporate partners.
- A partnership with the Rose Society of South Australia involved volunteers from the Rose Society providing hands-on support for horticultural staff in the International Rose Garden in the Adelaide Botanic Garden. The Dahlia Society also supplied dedicated expertise for the dahlia display.
- International Volunteer Day on 5 December was again the occasion at which 300 volunteers are recognised for their support and commitment to the Garden and Herbarium programs.

Workplace Health & Safety

The Board of the Botanic Gardens and State Herbarium is committed to ensuring that the Gardens and Herbarium are safe for staff, volunteers and visitors.

The Board abides by DEWNR workplace health and safety (WH&S) policies and procedures and reporting on this matter is contained in the DEWNR Annual Report 2012–13.

Its emphasis in recent years on a staff committed to Workplace Health & Safety through engagement in policy development and implementation has been a major factor in the achievement of zero lost time injuries (LTIs) over the past two years (2011–2012 and 2012–13).

The Gardens and Herbarium WH&S committees met with and provided advice to management, carried out regular workplace inspections and safe work practices were subject to continual review.

As part of ongoing maintenance and visitor safety management, an independent arborist audited the recommendations of the 2004 Tree Strategy to verify and update the data collected, in particular, risk assessment. Accordingly, Adelaide and Wittunga Botanic Gardens were able to program tree maintenance activities.

The Mount Lofty Botanic Garden Response to Fire Danger Rating 50+ is the means by which the Botanic Gardens looks to ensure the safety of staff, volunteers and the public on days of high fire risk. Other initiatives in 2012–13 included:

- Mount Lofty and Wittunga Botanic Gardens staff under took emergency response, fire evacuation and fire warden training
- The annual prescribed fire-slashing program was carried out around Mount Lofty Botanic Garden boundaries and access points
- As an extension to the fire and emergency response, the annual audit of Mount Lofty Botanic Garden was carried out and actions documented
- The Mount Lofty Botanic Gardens external fire crew attended pre-season training with DEWNR Cleland Brigades, and assisted with fuel-reduction efforts, multiple prescribed burn and emergency responses.

BUSINESS EFFICIENCIES

The Board of the Botanic Gardens and State Herbarium works to ensure that its operations are part of continuous improvement. Keeping abreast of the latest changes in technologies is part of making sure its business processes and the services it provides to researchers, scientists, children, the community and tourists are streamlined.

Continuous improvement is instrumental to the organisation's maintenance of American Alliance of Museums Acreditation. An internal review of the operations undertaken in 2011–12 made 42 recommendations for continuous improvement. In the first year, 90% of the recommendations were completed on target to achieve the objective to implement the recommendations by 2014.

A review of the body of work undertaken in 2012–13 as part of the new Board of the Botanic Gardens and State Herbarium Strategic Plan 2012–17 will inform the focus for endeavours in 2013–14 and beyond.

Other reviews undertaken during the year included:

- Commercial filming operations— guidelines developed to encourage greater use and appreciation of the Gardens and the various areas within them for more people to enjoy.
- Car parking—to ensure arrangements led to maximum visitor access and compliance with the relevant legislation.
- Databases—as part of the process to integration, a major undertaking given the magnitude and scope of the transition required.

Sustainability in Practice

The Gardens act as a living demonstration of water-saving plants and sustainable horticultural practices for the South Australian community, and provide leadership and advice on sustainable horticultural management to a range of government agencies and the private sector.

As a result of a raft of water initiatives implemented successfully over recent years, water from non-mains sources exceeds 50%.

When the First Creek Wetland ASR Project is fully commissioned up to 200 megalitres of storm water per annum that would otherwise flow out to sea will be captured and stored in an underlying aquifer to reduce the Adelaide Botanic Gardens dependency on potable water from the River Murray and water catchments. Modeling shows that within 8 years the Garden will have a self sufficient water supply

All three Gardens continued to model best-practice irrigation to the community. In the Adelaide Botanic Gardens 30% of lawn areas were again allowed to brown-off to green up again with autumn rains. Mulching continued throughout where appropriate and organic and low-level fungicides were used to control weeds and pests wherever possible and biological control has been implemented where appropriate.

Climate compatible gardens, such as the SA Water Mediterranean Garden, Cactus and Succulent Garden and the Australian Native Garden demonstrate to the community how home gardens can use water wisely and well through careful plant selection and thoughtful garden design.

Throughout all three Gardens work continued in conjunction with SA Water to implement improvements to water management, including the installation of bores at Mount Lofty.

The Board also looks to reduce the Gardens' environmental footprint and demonstrate good corporate citizenship, by incorporating sustainable practices into every area of its operations. Assisted by DEWNR, the Board was successful in obtaining funding and approval for the installation of 315 solar panels on the roof of the Tram Barn A. Once installed, they are forecast to offset 2 128 tonnes of carbon and yield 131 000 kWh per year. On a smaller scale, 30 panels have been installed on the roof of the Nursery in Mount Lofty Botanic Garden, feeding back excess energy to the grid and helping to offset irrigation pumping costs.

Australian Centre of Horticultrual Excellence students, Adelaide Botanic Garden

ROLE, LEGISLATION AND STRUCTURE

The Board is established under the *Botanic Gardens and State Herbarium Act 1978*, and is subject to the general direction and control of the Minister for Sustainability, Environment and Conservation.

Under Section 23 of the Act, the Board is required to present a report to the Minister before 30 September each year on its operations during the past financial year.

OBJECT OF THE BOTANIC GARDENS AND STATE HERBARIUM ACT

The object of the Act is to provide for the establishment and management of public botanic gardens and herbaria; and for other purposes.

ROLE OF THE BOARD

The Board is responsible for administering the Act and has responsibility for three garden sites—the Adelaide Botanic Garden and Botanic Park, Mount Lofty Botanic Garden and Wittunga Botanic Garden—and the State Herbaria.

FUNCTIONS OF THE BOARD

Functions of the Board as set out in Section 13 of the Act are to:

a) establish and maintain botanic and other gardens for the use and enjoyment of members of the public on land vested in or placed under the control of the Board;

b) establish and manage in, or in connection with, its gardens exhibitions of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history

c) establish and maintain a herbarium and, subject to this Act, to retain original specimens included in the herbarium;

d) accumulate and care for specimens (whether living or preserved), objects and things of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history;

e) accumulate and classify data in regard to any such matters;

f) manage all lands and premises vested in, or placed under the control of, the Board

g) manage all funds vested in, or under the control of, the Board and to apply those funds in accordance with the terms and conditions of any instrument of trust or other instrument affecting the disposition of those funds;

h) carry out or promote research into matters of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history;

i) disseminate information of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history;

j) provide consultant services; and

k) perform any other functions of scientific, educational or historical significance that may be assigned to the Board by regulation.

The six principles that follow embody the broad concepts that lay the foundation for the Board's management and oversight of the operations of the Botanic Gardens and State Herbarium.

- Respect horticultural and botanical knowledge and skills, and seek to ensure that staff and community knowledge contribute to high-level horticultural and botanical endeavour applied to the plant collections
- Respect garden and landscape design knowledge and skills, and seek to ensure that sound design advice contributes to a high standard of landscape aesthetics within the Gardens
- Support programs with careful planning, sound marketing and appropriate evaluation; promote public awareness and understanding of the Board's role; and communicate with and be responsive to visitors and stakeholders
- Contribute to biodiversity conservation and scientific research through education and integrated plant conservation programs
- Ensure that the Board's operations model effective environmental management to the community
- Ensure that the Board can demonstrate improving effectiveness and efficiency in resource use

MEMBERSHIP

The Board is made up of eight members, appointed by the Governor pursuant to Section 7 of the Act. As at 30 June 2013, Board membership was as follows:

Presiding Member
Judy Potter

Members
Rob Di Monte
Christine Elstob
Anne Howe AM
David Knox
Helena Jenkinson
Ann Levy AO
Ian Stirling

During the reporting period two members' terms expired. The Board wishes to thank Karen Cross and Gary Storkey.

MEETINGS

A total of nine meetings were held during the 2012–13 financial year.

No special Board meetings were held during the 2012–13 financial year.

Attendance by appointed members at meetings:

Board member	Meeting attendance
Judy Potter	8
Rob Di Monte	9
Christine Estlob	8
Anne Howe	9
David Knox	7
Helena Jenkinson	9
Anne Levy AO	8
Ian Stirling	5

The Board's Finance and Risk Management Committee, chaired by Rob DiMonte, met twice.

GOVERNANCE ARRAGEMENTS

DEWNR provides support to the Board of the Botanic Gardens and State Herbarium by providing an Executive Officer and Secretary for administration and governance. Reporting on this matter is contained in the DEWNR Annual Report 2012–13.

Garden of Health Adelaide Botanic Garden

MANAGEMENT OF HUMAN RESOURCES

Board Members Fees

The Board of the Botanic Gardens of Adelaide and State Herbarium (other than government employees) received the following remuneration as determined by the Governor of South Australia.

- Presiding Member $18 572
- Member $12 383.

Employee Numbers, Gender and Status

The Board of the Botanic Gardens and State Herbarium has no staff of its own and utilises the services of DEWNR. Reporting on this matter is contained in the DEWNR Annual Report 2012–13.

Executive, administrative and project support were provided to the Board of the Botanic Gardens and State Herbarium from existing DEWNR resources.

The gender balance of the Board of the Botanic Gardens and State Herbarium is taken into consideration when members are appointed. During this reporting period, membership of the Board was made up of three males and five females.

The following matters are also contained in the DEWNR annual report 2012–13:

- Superannuation contributed by the Superannuation contribution by the Board of the Botanic Gardens of Adelaide and State Herbarium
- Executives
- Leave Management
- Workforce Diversity
- Voluntary Flexible Working Arrangements
- Performance Development
- Leadership and Management Development
- Accredited Training Packages
- Employment Opportunity Programs
- Occupational Health and Safety and Injury Management
- Financial Performance
- Account Payment Performance
- *Careers Recognition Act 1993*
- Disability Action Plan
- Energy Efficiency Action Plan Report
- Greening of Government Operations Framework

CONTRACTUAL ARRANGEMENTS

The Board of the Botanic Gardens and State Herbarium did not enter into any contractual arrangements exceeding $4 million during this reporting period.

FRAUD

It is declared that there were no instances of fraud detected in the activities undertaken by the Board of the Botanic Gardens and State Herbarium in this reporting period. Financial services are provided to the Board of the Botanic Gardens of Adelaide and State Herbarium by DEWNR. Strategies to detect instances of fraud are reported in the DEWNR Annual Report 2012-13.

CONSULTANTS

The Board of the Botanic Gardens and State Herbarium did not engage any consultants in this reporting period.

OVERSEAS TRAVEL

It is declared that no member of the Board of the Botanic Gardens of Adelaide and State Herbarium has travelled overseas on Board business during this reporting period.

URBAN DESIGN CHARTER

No events occurred in 2012-13 that required the Board of the Botanic Gardens and State Herbarium to consider the principles of urban design contained in the South Australian Urban Design Charter.

FREEDOM OF INFORMATION – IINFORMATION STATEMENTS

As a DEWNR administered entity, the Board of the Botanic Gardens and State Herbarium participates in and abides by the arrangements outlined in the DEWNR Freedom of Information regime. Reporting on this matter is available on the DEWNR internet site. Please visit http://www.environment.sa.gov.au to view the FOI statement.

WHISTLEBLOWERS PROTECTION ACT 1993

Reporting requirements against the *Whistleblowers Protection Act 1993* require the Board of the Botanic Gardens and State Herbarium to report on the number of occasions on which public interest information has been disclosed to a Responsible Officer of the agency. There were no disclosures made during the 2012-13 financial year.

REGIONAL IMPACT ASSESSMENT STATEMENTS

The Board of the Botanic Gardens and State Herbarium undertook no regional impact assessment statements during the reporting period.

RECONCILIATION STATEMENT

The Board of the Botanic Gardens and State Herbarium acknowledges that the land on which it meets is the traditional land of the Kaurna people. It respects their special relationship with this land. The Board also acknowledges the Kaurna people's belief as to their custodial roles for the land of the greater Adelaide region, and notes that their cultural and heritage beliefs are still important to many Kaurna people today. In fulfilling its functions, the Board is aware of the cultural heritage of the traditional owners and strives to achieve mutually satisfying outcomes wherever these matters are concerned.

ACKNOWLEDGEMENTS

No Board members have either a direct or indirect pecuniary interest in any firm, trust or company with which the Board has entered into arrangements during the year.

FINANCIAL REPORT

FINANCIAL PERFORMANCE

The Board is a body corporate under Section 6 of the Act and is required to cause proper accounts to be kept of its financial affairs. The Auditor General may at any time, and at least once in each year, audit the accounts of the Board. The Board must, on or before 30 September in each year, present a report to the Minister on the operations of the Board during the preceding financial year. This report must include the audited statement of accounts of the Board for the financial year to which the report relates.

Account Payment Performance

DEWNR provides administrative resources for processing account payments. The Board's reporting on this matter is contained in the DEWNR Annual Report 2012–13..

Board of the Botanic Gardens and State Herbarium

Annual Financial Statements
For the year ended 30 June 2013

Government of South Australia
Auditor-General's Department

Our ref: A13/026

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30 October 2013

Ms J Potter
Chair
Board of the Botanic Gardens and State Herbarium
North Terrace
ADELAIDE SA 5000

Dear Ms Potter

Audit of the Board of the Botanic Gardens and State Herbarium for the year ended 30 June 2013

The audit of the accounts of the Board of the Botanic Gardens and State Herbarium (the Board) for the year ended 30 June 2013 has been completed.

The scope of the audit covered the principal areas of the financial operations of the Board and included the test review of systems and processes and internal controls and financial transactions.

The audit coverage and its conduct are directed to meeting statutory audit responsibilities under the *Public Finance and Audit Act 1987* and also the requirements of Australian Auditing Standards.

Returned herewith are the financial statements of the Board together with the IAR, which is unmodified.

In addition, there were no matters that warranted inclusion in an audit management letter.

Finally, I would like to express my appreciation to the management and staff of the Board in providing assistance during the year to my officers in the conduct of the annual audit.

Yours sincerely

S O'Neill
AUDITOR-GENERAL

enc

INDEPENDENT AUDITOR'S REPORT

Government of South Australia
Auditor-General's Department

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To the Chair of the Board
Board of the Botanic Gardens and State Herbarium

As required by section 31(1)(b) of the *Public Finance and Audit Act 1987* and section 22(2) of the *Botanic Gardens and State Herbarium Act 1978*, I have audited the accompanying financial report of the Board of the Botanic Gardens and State Herbarium for the financial year ended 30 June 2013. The financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2013
- a Statement of Financial Position as at 30 June 2013
- a Statement of Changes in Equity for the year ended 30 June 2013
- a Statement of Cash Flows for the year ended 30 June 2013
- notes, comprising a summary of significant accounting policies and other explanatory information
- a Certificate from the Chair, Executive Director and Chief Financial Officer, Department of Environment, Water and Natural Resources.

The Board's Responsibility for the Financial Report

The members of the Board responsible for the preparation of the financial report that gives a true and fair view in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards, and for such internal control as the members of the Board determines is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on the financial report based on the audit. The audit was conducted in accordance with the requirements of the *Public Finance and Audit Act 1987* and Australian Auditing Standards. The auditing standards require that the auditor comply with relevant ethical requirements and that the auditor plan and perform the audit to obtain reasonable assurance about whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial report that gives a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the members of the Board, as well as the overall presentation of the financial report.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial report gives a true and fair view of the financial position of the Board of the Botanic Gardens and State Herbarium as at 30 June 2013, its financial performance and its cash flows for the year then ended in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.

S O'Neill
AUDITOR-GENERAL
30 October 2013

Board of the Botanic Gardens and State Herbarium

Certification of the Financial Statements

We certify that the attached general purpose financial statements for the Board of the Botanic Gardens and State Herbarium:

- comply with any relevant Treasurer's Instructions issued under section 41 of the *Public Finance and Audit Act 1987,* and any relevant Australian Accounting Standards;
- are in accordance with the accounts and records of the Board; and
- present a true and fair view of the financial position of the Board of the Botanic Gardens and State Herbarium as at 30 June 2013 and the results of its operations and cash flows for the financial year.

We certify that the internal controls employed by the Board of the Botanic Gardens and State Herbarium for the financial year over its financial reporting and its preparation of the general purpose financial statements have been effective throughout the reporting period.

Judy Potter Chair Board of the Botanic Gardens and State Herbarium 9 October 2013	Stephen Forbes Executive Director Department of Environment, Water and Natural Resources 9 October 2013	Michelle Griffiths Chief Financial Officer Department of Environment, Water and Natural Resources 9 October 2013

Board of the Botanic Gardens and State Herbarium

Statement of Comprehensive Income

For the year ended 30 June 2013

	Note	2013	2012
		$'000	$'000
Expenses			
Board member expenses	5	121	121
Supplies and services	6	547	512
Depreciation expense	7	1,887	2,201
Grants and subsidies	8	1,175	1,368
Net loss from the disposal of non-current assets	9	3	-
Other expenses	10	76	1,669
Total expenses		**3,809**	**5,871**
Income			
Revenues from fees and charges	11	1,100	1,190
Grant revenues	12	170	206
Interest revenues	13	102	147
Resources received free of charge	14	727	1,914
Other income	15	951	546
Total income		**3,050**	**4,003**
Net cost of providing services		**759**	**1,868**
Net result		**(759)**	**(1,868)**
Other comprehensive income			
Items that will not be reclassified to net result			
Changes in property, plant and equipment asset revaluation surplus	19	-	(14,578)
Total other comprehensive income		**-**	**(14,578)**
Total comprehensive result		**(759)**	**(16,446)**

The net result and total comprehensive result are attributable to the SA Government as owner

The above statement should be read in conjunction with the accompanying notes

Board of the Botanic Gardens and State Herbarium
Statement of Financial Position
As at 30 June 2013

	Note	2013 $'000	2012 $'000
Current assets			
Cash and cash equivalents	16	3,534	3,068
Receivables	17	87	56
Inventories	18	92	136
Total current assets		**3,713**	**3,260**
Non-current assets			
Property, plant and equipment	19	41,433	42,489
Total non-current assets		**41,433**	**42,489**
Total assets		**45,146**	**45,749**
Current liabilities			
Payables	20	82	34
Total current liabilities		**82**	**34**
Total liabilities		**82**	**34**
Net assets		**45,064**	**45,715**
Equity			
Asset revaluation surplus		9,300	9,300
Retained earnings		35,764	36,415
Total equity		**45,064**	**45,715**
The total equity is attributable to the SA Government as owner			
Unrecognised contractual commitments	23		
Contingent assets and liabilities	24		

The above statement should be read in conjunction with the accompanying notes

Board of the Botanic Gardens and State Herbarium

Statement of Changes in Equity

For the year ended 30 June 2013

	Note	Asset Revaluation Surplus $'000	Retained Earnings $'000	Total $'000
Balance at 30 June 2011		**23,878**	**38,671**	**62,549**
Error correction		-	1	1
Restated balance as at 30 June 2011		**23,878**	**38,672**	**62,550**
Net result for 2011-12		-	(1,868)	(1,868)
Loss on revaluation of property, plant and equipment		(14,578)	-	(14,578)
Total comprehensive result for 2010-11		**(14,578)**	**(1,868)**	**(16,446)**
Asset adjustments - ARAMIS revisions		-	(388)	(388)
Total asset adjustments		**-**	**(388)**	**(388)**
Balance at 30 June 2012		**9,300**	**36,416**	**45,716**
Net result for 2012-13		-	(759)	(759)
Total comprehensive result for 2012-13		**-**	**(759)**	**(759)**
Asset adjustments - ARAMIS revisions		-	107	**107**
Balance at 30 June 2013		**9,300**	**35,764**	**45,064**

All changes in equity are attributable to the SA Government as owner

The above statement should be read in conjunction with the accompanying notes

Board of the Botanic Gardens and State Herbarium

Statement of Cash Flows

For the year ended 30 June 2013

	Note	2013 $'000	2012 $'000
Cash flows from operating activities			
Cash outflows			
Board member payments		(121)	(121)
Payments for supplies and services		(499)	(517)
Payments of grants and subsidies		(1,175)	(1,368)
Other payments		(32)	(22)
Cash used in operations		**(1,827)**	**(2,028)**
Cash inflows			
Fees and charges		1,065	1,262
Receipts from grants		170	206
Interest received		106	149
Other receipts		952	546
Cash generated from operations		**2,293**	**2,163**
Net cash provided by operating activities	21	**466**	**135**
Net increase in cash and cash equivalents		**466**	**135**
Cash and cash equivalents at the beginning of the period		3,068	2,933
Cash and cash equivalents at the end of the period	16	**3,534**	**3,068**

The above statement should be read in conjunction with the accompanying notes

Board of the Botanic Gardens and State Herbarium

Note Index

For the year ended 30 June 2013

Board of the Botanic Gardens and State Herbarium

Notes to and forming part of the Financial Statements

For the year ended 30 June 2013

1 Objectives of the Board

(a) Strategic Context

The Board of the Botanic Gardens & State Herbarium (the Board) was established under section 6 of the *Botanic Gardens and State Herbarium Act 1978* (the Act).

The objectives of the Board are to ensure the maintenance and development of the South Australian Botanic Gardens and State Herbarium by:

(a) establishing and maintaining botanic and other gardens for the use and enjoyment of members of the public on land vested in or placed under the control of the Board

(b) establishing and managing in, or in connection with, its gardens exhibitions of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history

(c) establishing and maintaining a herbarium and, subject to this Act, retaining original specimens included in the herbarium

(d) accumulating and caring for specimens (whether living or preserved), objects and things of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history

(e) accumulating and classifying data in regard to any such matters

(f) managing all lands and premises vested in, or placed under the control of, the Board

(g) managing all funds vested in, or under the control of, the Board and applying those funds in accordance with the terms and conditions of any instrument of trust or other instrument affecting the disposition of those funds

(h) carrying out, or promoting, research into matters of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history

(i) disseminating information of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history

(j) undertaking the commercial exploitation of knowledge acquired by the Board in the course of conducting research

(k) selling or propagating and selling (whether alone or in partnership or joint venture with a nursery business) hybrids or cultivated varieties of plants that:
  (i) have occurred spontaneously in the Board's gardens or been developed in the course of its research activities
  (ii) are not widely commercially available in the State

(l) providing consultant services

(m) performing any other functions of scientific, educational or historical significance that may be assigned to the Board by regulation.

(b) Financial Arrangements

The financial activities of the Board are administered through the Botanic Gardens Endowment and Commercial Fund (the Fund) in accordance with the Act. The Fund is an interest bearing Deposit Account with the Department of Treasury and Finance (DTF) pursuant to section 21(1) of the *Public Finance and Audit Act 1987*.

The Fund's sources of revenue include:

- donations;
- grants and bequests;
- sponsorships;
- retail sales;
- fees and charges for services to the public.

The Department of Environment, Water and Natural Resources (DEWNR) conducts a large number of activities directed towards meeting the Board's responsibilities under the Act. Due to DEWNR receiving appropriation funding, and directing and controlling the expenditure for these activities, the revenue and expenditure relating to those activities are recognised in DEWNR's financial statements rather than the Board's. Activities undertaken by DEWNR in support of the administration of the Act and Board are disclosed in Note 28.

In accordance with the provisions of the Act, the Board has delegated certain functions to officers within DEWNR who provide certain technical and administrative support including the use of certain plant and equipment, office accommodation and various administrative services. The cost of the services provided that are identifiable with the activities of the Board and can be measured reliably, are met by the Board. Other support services that are not identifiable and/or cannot be measured reliably are provided free of charge and have not been recognised in these financial statements.

2 Summary of significant accounting policies

(a) Statement of compliance

The Board has prepared these financial statements in compliance with section 23 of the *Public Finance and Audit Act 1987*.

The financial statements are general purpose financial statements. The accounts have been prepared in accordance with Australian Accounting Standards and comply with Treasurer's Instructions and Accounting Policy Statements promulgated under the provisions of the *Public Finance and Audit Act 1987*.

The Board has applied Australian Accounting Standards that are applicable to not-for-profit entities, as the Board is a not-for-profit entity.

Australian Accounting Standards and interpretations that have recently been issued or amended but are not yet effective have not been adopted by the Board for the reporting period ending 30 June 2013. Refer to Note 3.

(b) Basis of preparation

The preparation of the financial statements requires:

- the use of certain accounting estimates and require management to exercise its judgement in the process of applying the Board's accounting policies. Areas involving a higher degree of judgement or where assumptions and estimates are significant to the financial statements, are outlined in the applicable notes;

- the selection and application of accounting policies in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events are reported; and

- compliance with Accounting Policy Statements issued pursuant to section 41 of the Public Finance and Audit Act 1987. In the interest of public accountability and transparency the Accounting Policy Statements require the following note disclosures, which have been included in these financial statements:

  (a) revenues, expenses, financial assets and financial liabilities where the counterparty/transaction is with an entity within the SA Government as at reporting date, classified according to their nature. A threshold of $100 000 for separate identification of these items may be utilised.

  (b) expenses incurred as a result of engaging consultants.

  (c) board/committee member and remuneration information, where a board/committee member is entitled to receive income from membership other than a direct out-of-pocket reimbursement.

The Board's Statement of Comprehensive Income, Statement of Financial Position and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets that were valued in accordance with the valuation policy applicable.

The Statement of Cash Flows is prepared on a cash basis.

The financial statements have been prepared based on a twelve month period and presented in Australian currency.

The accounting policies set out below have been applied in preparing the financial statements for the year ended 30 June 2013 and the comparative information presented.

(c) Reporting entity

The Board is a reporting entity, established pursuant to the *Botanic Gardens and State Herbarium Act 1978.*

(d) Comparative information

The presentation and classification of items in the financial statements are consistent with prior periods except where specific accounting standards and/or accounting policy statements have required a change.

Where presentation or classification of items in the financial statements have been amended, comparative figures have been adjusted to conform to changes in presentation or classification in these financial statements unless impracticable.

Where the Board has applied an accounting policy retrospectively; retrospectively restated items in the financial statements; reclassified items in the financial statements, it has provided three Statements of Financial Positions and related notes.

The restated comparative amounts do not replace the original financial statements for the preceding period.

(e) Rounding

All amounts in the financial statements have been rounded to the nearest thousand dollars ($'000).

(f) Taxation

The Board is not subject to income tax. The Board is liable for fringe benefits tax, emergency services levy, land tax equivalents and local government rate equivalents.

DEWNR prepares a Business Activity Statement on behalf of the Board under the grouping provisions of the GST legislation. Under these provisions, DEWNR is liable for the payments and entitled to the receipts associated with GST. Therefore, the Board's net GST receivable/payable is recorded in DEWNR's Statement of Financial Position. GST cash flows applicable to the Board are recorded in DEWNR's Statement of Cash Flows.

(g) Events after the reporting period

Adjustments are made to amounts recognised in the financial statements, where an event occurs after 30 June and before the date the financial statements are authorised for issue, where those events provide information about conditions that existed at 30 June.

Note disclosure is made about events between 30 June and the date the financial statements are authorised for issue where the events relate to a condition which arose after 30 June and which may have a material impact on the results of subsequent years.

(h) Income

Income is recognised to the extent that it is probable that the flow of economic benefits to the Board will occur and can be reliably measured.

Income has been aggregated according to its nature and has not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

The notes accompanying the financial statements disclose income where the counterparty/transaction is with an entity within the SA Government as at the reporting date, classified according to their nature.

Transactions with SA Government entities below the threshold of $100 000 have been included with the non-government transactions, classified according to their nature.

The following are specific recognition criteria:

Fees and Charges

Revenues from fees and charges are derived from the provision of goods and services to other SA government agencies and to the public. This revenue is recognised upon delivery of the service to the clients or by reference to the stage of completion.

Contributions received

Contributions are recognised as an asset and income when the Board obtains control of the contributions or obtains the right to receive the contributions and the income recognition criteria are met (i.e. the amount can be reliably measured and the flow of resources is probable).

Generally, the Board has obtained control or the right to receive for:

- Contributions with unconditional stipulations - this will be when the agreement becomes enforceable ie the earlier of when the receiving entity has formally been advised that the contribution (eg grant application) has been approved; agreement/contract is executed; and/or the contribution is received.
- Contributions with conditional stipulations - this will be when the enforceable stipulations specified in the agreement occur or are satisfied; that is income would be recognised for contributions received or receivable under the agreement.

All contributions received by the Board have been contributions with unconditional stipulations attached and have been recognised as an asset and income upon receipt.

Resources received free of charge

Resources received free of charge are recorded as revenue in the Statement of Comprehensive Income at their fair value. Contributions of services are recognised only when a fair value can be determined reliably and the services would be purchased if they had not been donated.

Other income

Other income consists of sponsorships, donations, commissions and bequests. This revenue is recognised upon receipt.

(i) Expenses

Expenses are recognised to the extent that it is probable that the flow of economic benefits from the Board will occur and can reliably measured.

Expenses have been aggregated according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

The following are specific recognition criteria:

Board member expenses

Board member expenses include all board fees and related on-costs including superannuation. These are recognised when incurred.

Superannuation

The amount charged to the Statement of Comprehensive Income represents the contributions made by the Board to superannuation plans in respect of current services of current Board Members. The Department of Treasury and Finance centrally recognises the superannuation liability in the whole of government general purpose financial statements.

Depreciation of non-current assets

All non-current assets, having a limited useful life, are systematically depreciated over their useful lives in a manner that reflects the consumption of their service potential.

Assets' residual values and useful lives are reviewed and adjusted if appropriate, on an annual basis.

Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for prospectively by changing the time period or method, as appropriate, which is a change in accounting estimate.

Land assets are not depreciated.

Depreciation is calculated on a straight line basis over the estimated useful life of the following classes of assets:

Class of Asset	Useful Life (years)
Park Infrastructure	6-60
Plant and Equipment	3-20
Roads, Tracks and Trails	6-35
Furniture and Fittings	10
Buildings and Improvements	15-80
Vehicles	3-12
Other	5-99

Grants and subsidies

For contributions payable, the contribution will be recognised as a liability and expense when the entity has a present obligation to pay the contribution and the expense recognition criteria are met.

All contributions paid by the Board have been contributions with unconditional stipulations attached.

(j) Current and non-current classification

Assets and liabilities are characterised as either current or non-current in nature. Assets and liabilities that are sold, consumed or realised as part of the normal operating cycle even when they are not expected to be realised within twelve months after the reporting date have been classified as current assets or current liabilities. All other assets and liabilities are classified as non-current.

Where asset and liability line item combine amounts expected to be realised within twelve months and more than twelve months, the department has separately disclosed the amounts expected to be recovered or settled after more than twelve months.

(k) Assets

Assets have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Where an asset line item combine amounts expected to be settled within twelve months and more than twelve months, the Board has separately disclosed the amounts expected to be recovered after more than twelve months.

Cash and cash equivalents

Cash and cash equivalents in the Statement of Financial Position includes cash at bank and on hand.

For the purposes of the Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above.

Cash is measured at nominal value.

Receivables

Receivables include amounts receivable from goods and services provided and other accruals.

Receivables arise in the normal course of selling goods and services to other government agencies and to the public. Receivables are generally settled within 30 days after the issue of an invoice.

Collectability of receivables is reviewed on an ongoing basis. An allowance for doubtful debts is raised when there is objective evidence that the Board will not be able to collect the debt. Bad debts are written off when identified.

Inventories

Inventories include goods held either for sale or distribution at no or nominal cost in the ordinary course of business.

Inventories held for distribution, at no or nominal consideration, are measured at cost and adjusted when applicable for any loss of service potential. Inventories held for sale are measured at the lower of cost or their net realisable value.

Bases used in assessing loss of service potential for inventory held for distribution at no or minimal cost include current replacement cost and technological or functional obsolescence.

Cost for all inventory is measured on the basis of the first-in, first-out method. Net realisable value is determined using the estimated sales proceeds less costs incurred in marketing, selling and distribution to customers.

The amount of any inventory write-down to net realisable value or inventory losses are recognised in the Statement of Comprehensive Income as an expense in the period the write-down or loss occurred. Any write-down reversals are recognised as an expense reduction in the Statement of Comprehensive Income.

Non-current assets

Acquisition and recognition

Non-current assets are initially recorded at cost or at the value of any liabilities assumed, plus any incidental costs involved with the acquisition. Non-current assets are subsequently measured at fair value less accumulated depreciation.

Where assets are acquired at no value, or minimal value, they are recorded at their fair value in the Statement of Financial Position. However, if the assets are acquired at no or nominal value as part of a restructuring of administrative arrangements then the assets are recognised at book value, i.e. the amount recorded by the transferor public authority prior to the restructure.

All non-current tangible assets with a value of $10 000 and over are capitalised.

Componentisation of complex assets is only performed when the complex asset's fair value at the time of acquisition is equal to or in excess of $5 million for infrastructure assets and $1 million for other assets.

State Herbarium Collection

The State Herbarium is the State's major provider of authoritative data and information on the plants, algae and fungi of South Australia. The collections of the State Herbarium comprise a large sustainable sample of the flora of South Australia, Australia and the world, particularly Mediterranean regions. These specimens, of which there are approximately 1 million, while providing a unique scientific resource require considerable maintenance.

The State Herbarium Collection is a heritage asset which is considered so unique that it is not capable of reliable measurement. Hence, the value of the collection has not been recognised in the Financial Statements in accordance with APF III Asset Accounting Framework.

Revaluation of non-current assets

All non-current tangible assets are valued at written down current cost (a proxy for fair value). Revaluation of a non-current asset is only performed when its fair value at the time of acquisition is greater than $1 million and estimated useful life is greater than three years.

Asset classes that did not satisfy this criteria and are therefore deemed to be at fair value are:

- Furniture and fittings;
- Plant and equipment;
- Vehicles.

The Board revalues its land, buildings and improvements, park infrastructure and roads, tracks and trails on at least a three year rolling basis. However, if at any time management considers that the carrying amount of an asset materially differs from its fair value, then the asset will be revalued regardless of when the last valuation took place. Non-current tangible assets that are acquired between revaluations are held at cost until the next valuation, when they are revalued to fair value.

Property, plant and equipment assets due for revaluation are assessed to determine whether they should be classified as generic assets or unique assets.

Generic building, infrastructure and road assets are valued using a data dictionary approach. The data dictionary model is contained within DEWNR's ARAMIS system. The data dictionary model calculates a value for an asset based on description, grade / composition, condition and size / quantity. The model value is adjusted by a locality factor to take into account climatic conditions. The valuation model itself is reviewed every three years.

Unique assets are items which cannot be categorised within standard data dictionary groups. Assets that are deemed to be unique are externally valued by independent professional valuers.

The valuers used by the Board in 2011-12 are as follows:

- 1 July 2011, valuation of data dictionary: buildings, infrastructure and roads, Valcorp Australia Pty Ltd, Mr F. Taormina, BAppSc (Val), AAPI
- 1 July 2011, independent professional valuation, Herron Todd White, Mr Paul Tilley,FAPI, AREI, CREI (Val)
- 1 July 2011, valuation of other items:
  - Ÿ Library collections, Michael Treloar, Antiquarian and member of ANZAAB, ILAB and AAADAŸ
  - Fine Art Collections and Artefacts, Anthony Hurl, BA, MSAA, MAASA, CINOA, Fine Art Valuer (Herron Todd White)

The fair value of unique items was determined by identifying a market buying price, estimated as written down modern equivalent replacement cost. The fair value of land and buildings was based on recent market transactions for similar land and buildings in the area taking into account zoning and restrictions on use.

Any revaluation increment is credited to the asset revaluation surplus, except to the extent that it reverses a revaluation decrease of the same asset class previously recognised as an expense, in which case the increase is recognised as income. Any revaluation decrease is recognised as an expense, except to the extent that it offsets a previous revaluation increase for the same asset class, in which case the decrease is debited directly to the asset revaluation surplus to the extent of the credit balance existing in the revaluation surplus for that asset class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amounts of the assets and the net amounts are restated to the revalued amounts of the asset.

Restrictions on Use - Land

Section 14 of the *Botanic Gardens and State Herbarium Act 1978* states that the Board may not dispose of any interest in land vested in it, nor may it be divested of the control of any land placed under its control, except in pursuance of a resolution passed by both Houses of Parliament.

Given the restrictions on the use and disposal of Board land, Herron Todd White adopted an income approach in estimating the fair value of land assets. This value is significantly less than the proceeds that would be obtained in an open market for land of a comparable size and location.

Impairment

All non-current tangible and intangible assets are tested for indications of impairment at each reporting date. Where there is an indication of impairment, the recoverable amount is estimated. An amount by which the asset's carrying amount exceeds the recoverable amount is recorded as an impairment loss.

For revalued assets, an impairment loss is offset against the respective asset revaluation surplus.

(l) Liabilities

Liabilities have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Where a liability line item combine amounts expected to be settled within twelve months and more than twelve months, the Board has separately disclosed the amounts expected to be settled after more than twelve months.

Payables

Payables include creditors, accrued expenses and board member remuneration on-costs.

Creditors represent the amounts owing for goods and services received prior to the end of the reporting period that are unpaid at the end of the reporting period. Creditors include all unpaid invoices received relating to the normal operations of the Board.

Accrued expenses represent goods and services provided by other parties during the period that are unpaid at the end of the reporting period and where an invoice has not been received.

All payables are measured at their nominal amount and are normally settled within 30 days from the date of the invoice or the date the invoice is first received.

The Board makes contributions to several State Government and externally managed superannuation schemes. These contributions are treated as an expense when they occur. There is no liability for payments to beneficiaries as they have been assumed by the respective superannuation schemes. The only liability outstanding at reporting date relates to any contributions due but not yet paid to the South Australian Superannuation Board.

Employee benefits

The Board has no employees. Services to the Board are provided by personnel employed by DEWNR, hence no employee benefits or related provisions are included in the Board's financial statements. Employee benefits relating to relevant employees are reflected in the financial statements of DEWNR.

(m) Unrecognised contractual commitments and contingent assets and liabilities

Contingent assets and contingent liabilities are not recognised in the Statement of Financial Position, but are disclosed by way of a note and, if quantifiable, are measured at nominal value.

Unrecognised contractual commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to the Australian Taxation Office. If GST is not payable to, or recoverable from the Australian Taxation Office, the commitments and contingencies are disclosed on a gross basis.

3 New and revised accounting standards and policies

The Board did not voluntarily change any of its accounting policies during 2012-13.

Australian Accounting Standards and interpretations that have recently been issued or amended but are not yet effective, have not been adopted by the Board for the period ending 30 June 2013. The Board has assessed the impact of the new and amended standards and interpretations and considers there will be no impact on the accounting policies or the financial statements of the Board.

4 Programs of the Board

In achieving its objectives the Board conducts its services through a single program, Botanic Gardens Management. The purpose of this program is to manage the natural and cultural resources of the Botanic Gardens and State Herbarium to advance plant appreciation, knowledge and conservation through our natural and cultural collections and programs.

5 Board member expenses

	2013 $'000	2012 $'000
Board and committee fees	107	105
Board member on-costs - superannuation	7	7
Board member on-costs - other	6	6
Other board related expenses	1	3
Total: Board member expenses	**121**	**121**

6 Supplies and services

	2013 $'000	2012 $'000
Accommodation and property management expenses	41	39
Contractors	1	-
Fee for service	286	227
General administration	155	172
Minor works, maintenance & equipment	56	55
Travel and accommodation	3	3
Other	5	16
Total: Supplies and services	**547**	**512**

7 Depreciation expense

	2013 $'000	2012 $'000
Buildings and improvements	580	682
Furniture and fittings	182	182
Vehicles	14	6
Park infrastructure	805	1,028
Roads, tracks and trails	139	143
Plant and equipment	92	85
Other	75	75
Total: Depreciation	**1,887**	**2,201**

8 Grants and subsidies

	2013 $'000	2012 $'000
State Government	1,155	1,348
Universities	20	20
Total: Grants and subsidies	**1,175**	**1,368**
Grants and subsidies paid/payable to entities within the SA Government		
Department of Environment, Water and Natural Resources	1,155	1,348
Total: Grants and subsidies paid/payable to entities within the SA Government	**1,155**	**1,348**

9 Net (loss)/gain from the disposal of non-current assets

	2013 $'000	2012 $'000
Park infrastructure		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	(3)	-
Net (loss)/gain from disposal	(3)	-
Total: Assets		
Total proceeds from disposal	-	-
Less: total value of assets disposed	(3)	-
Total: Net (loss)/gain from disposal of non-current assets	**(3)**	**-**

10 Other expenses

	2013 $'000	2012 $'000
Revaluation decrements	-	1,628
Other (incl audit fees)	76	41
Total: Other expenses	**76**	**1,669**
Audit fees paid/payable to the Auditor-General's Department relating to the audit of financial statements	32	22
Total: Audit fees	**32**	**22**

Other services
No other services were provided by the Auditor-General's Department

11 Revenues from fees and charges

	2013 $'000	2012 $'000
Admissions and guided tours	9	62
Expiation fees	178	155
Property rental and related income	178	202
Sale of goods	11	19
Car parking	539	563
Garden functions	170	162
Sale of support services	15	27
Total: Revenue from fees and charges	**1,100**	**1,190**

12 Grant revenues

	2013 $'000	2012 $'000
Grants received from other entities within the SA Government	170	206
Total: Grant revenues	**170**	**206**
Grant revenues received/receivable from entities within the SA Government		
Department of Environment, Water and Natural Resources *	120	129
Other state government grants	50	77
Total: Grant revenues received/receivable from entities within the SA Government	**170**	**206**
* Department of Environment, Water and Natural Resources contributions:		
Sitting fee reimbursement	120	118
Project work reimbursement	-	11
	120	129

13 Interest revenues

	2013 $'000	2012 $'000
Interest from entities within the SA Government'	102	147
Total: Interest revenues	**102**	**147**

14 Resources received free of charge

	2013 $'000	2012 $'000
Resources received free of charge from entities within the SA Government		
Buildings	96	-
Park infrastructure	283	1,619
Roads, tracks and trails	203	261
Vehicles	105	12
Plant and equipment	40	22
Total: Resources received free of charge from entities within the SA Government	**727**	**1,914**

The assets transferred free of charge from DEWNR to the Board during 2012-13 relate primarily to the Trails Statewide Investment Project ($295 000) and Mt Lofty Botanic Gardens - Class 1 Walk project ($194 000).

15 Other income

	2013 $'000	2012 $'000
Sponsorships, donations, commissions and bequests	881	493
Other sundry revenue	70	53
Total: Other income	**951**	**546**

16 Cash and cash equivalents

	2013 $'000	2012 $'000
Deposits with the Treasurer	3,534	3,068
Total: Cash and cash equivalents	**3,534**	**3,068**

Interest rate risk
Cash deposits are recognised at their nominal amounts and interest is credited to revenue as it accrues. The Board invests surplus funds with the Treasurer. Interest is earned on the average monthly balance at rates based on the DTF 90 day average overnight cash interest rate and interest is paid at the end of each quarter.

17 Receivables

	2013 $'000	2012 $'000
Current		
Receivables	78	43
Accrued revenues	9	13
Total: Current receivables	**87**	**56**
Receivables from entities within the SA Government		
Receivables	-	5
Accrued revenues	9	13
Total: Receivables from entities within the SA Government	**9**	**18**

18 Inventories

	2013 $'000	2012 $'000
Inventories held for resale - at cost		
Finished goods held for resale - at cost	92	136
Total: Inventories	**92**	**136**

19 Property, plant and equipment

	2013 $'000	2012 $'000
Land		
Independent valuation [i]	3,767	3,767
Total: Land	**3,767**	**3,767**
Buildings and improvements		
Independent valuation [i]	38,369	38,273
At cost [ii]	-	-
Less: Accumulated depreciation	(16,201)	(15,621)
Total: Buildings and improvements	**22,168**	**22,652**
Park infrastructure		
Independent valuation [i]	53,939	54,204
At cost [ii]	2,335	2,053
Less: Accumulated depreciation	(49,779)	(49,348)
Total: Park infrastructure	**6,495**	**6,909**
Roads, tracks and trails		
Independent valuation [i]	3,796	3,823
At cost [ii]	491	276
Less: Accumulated depreciation	(3,135)	(3,007)
Total: Roads, tracks and trails	**1,152**	**1,092**
Vehicles		
At cost (deemed fair value) [iii]	442	71
Less: Accumulated depreciation	(306)	(26)
Total: Vehicles	**136**	**45**
Furniture and fittings		
At cost (deemed fair value) [iii]	1,794	1,794
Less: Accumulated depreciation	(916)	(734)
Total: Furniture and fittings	**878**	**1,060**
Plant and equipment		
At cost (deemed fair value) [iii]	813	729
Less: Accumulated depreciation	(413)	(277)
Total: Plant and equipment	**400**	**452**
Other - Books and Artefacts		
Independent valuation [i]	7,784	7,784
Less: Accumulated depreciation	(1,347)	(1,272)
Total: Other	**6,437**	**6,512**
Total: Property, plant and equipment	**41,433**	**42,489**

Carrying amounts of property, plant and equipment

Classes of property, plant and equipment are valued as follows:

i Independent valuation:
Generic assets are valued using the Data Dictionary model. Unique assets are items which can not be categorised within the standard Data Dictionary groups. These assets are valued separately by independent professional valuers. Refer to Note 2(k) for further details.

ii At cost (acquisition cost):
This class includes one or more items that have an acquisition cost exceeding $1m. All assets within this class are temporarily held at cost pending revaluation that occurs no later than three years from acquisition date.

iii At cost (deemed fair value):
These assets have an acquisition cost below $1m and are deemed held at fair value pursuant to Accounting Policy Framework III.

Movement reconciliation of property, plant and equipment:

	Land	Buildings	Park infra-structure	Roads, tracks & trails	Vehicles	Furniture & fittings	Plant & equipment	Other	2013 Sub-total	2012 Sub-total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
2013										
Carrying amount at the start of period	**3,767**	**22,652**	**6,909**	**1,092**	**45**	**1,060**	**452**	**6,512**	**42,489**	
Depreciation expense	-	(580)	(805)	(139)	(14)	(182)	(92)	(75)	(1,887)	
Assets received for nil consideration	-	96	283	203	105	-	40	-	727	
Disposals	-	-	(3)	-	-	-	-	-	(3)	
ARAMIS revisions upwards/(downwards)	-	-	111	(4)	-	-	-	-	107	
Carrying amount at the end of period	**3,767**	**22,168**	**6,495**	**1,152**	**136**	**878**	**400**	**6,437**	**41,433**	
2012										
Carrying amount at the start of period	**2,292**	**36,016**	**10,719**	**2,865**	**39**	**1,242**	**515**	**5,682**		**59,370**
Depreciation expense	-	(682)	(1,028)	(143)	(6)	(182)	(85)	(75)		**(2,201)**
Net revaluation increment/(decrement)	1,475	(12,682)	(4,013)	(264)	-	-	-	905		**(14,578)**
Assets received for nil consideration	-	-	1,619	261	12	-	22	-		**1,914**
ARAMIS revisions upwards/(downwards)	-	-	(388)	-	-	-	-	-		**(388)**
Revaluation Decrement - expensed in the current period	-	-	-	(1,628)	-	-	-	-		**(1,628)**
Carrying amount at the end of period	**3,767**	**22,652**	**6,909**	**1,092**	**45**	**1,060**	**452**	**6,512**		**42,489**

20 Payables

	2013 $'000	2012 $'000
Current		
Accrued expenses	26	22
Creditors	56	12
Total: Current Payables	82	34
Payables to entities within the SA Government		
Accrued expenses	26	22
Creditors	2	1
Total: Payables to entities within the SA Government	28	23

Interest rate and credit risk

Creditors and accruals are raised for all amounts billed but unpaid. Sundry creditors are normally settled within 30 days. All payables are non-interest bearing. The carrying amount of payables represents fair value due to the amounts being payable on demand.

21 Cash flow reconciliation

	2013 $'000	2012 $'000
Reconciliation of cash and cash equivalents at the end of the reporting period:		
Cash and cash equivalents disclosed in the Statement of Financial Position	**3,534**	**3,068**
Cash and cash equivalents disclosed in the Statement of Cash Flows	**3,534**	**3,068**
Reconciliation of net cash provided by operating activities to net result		
Net cash provided/(used in) by operating activities	**466**	**135**
Add/(less) non-cash items		
Depreciation expense of non-current assets	(1,887)	(2,201)
Assets received free of charge	727	1,914
Decrement on revaluation of non-current assets	-	(1,628)
Net (loss) from disposal of non-current assets	(3)	-
Movement in assets and liabilities		
Increase/(decrease) in receivables	30	(74)
(Decrease)/increase in inventories	(44)	(19)
Increase/(decrease) in other assets	-	(1)
(Increase)/decrease in payables	(48)	6
Net result	(759)	(1,868)

22 Restrictions on contributions received

The Board is engaged in a variety of funding programs involving State and Commonwealth sources that provide monies to the Board on the premise that these funds are expended in a manner consistent with the terms of the agreement. At reporting date the Board had the following outstanding funding commitments:

	2013 $'000	2012 $'000
Books and publications	103	98
Garden improvements	1,883	1,677
Research	215	228
Other	1,659	931
Total: Restrictions on contributions received	3,860	2,934

23 Unrecognised contractual commitments

The Board had no unrecognised contractual commitments as at 30 June 2013. All capital commitments associated with the Board are managed by the Department of Environment, Water and Natural Resources and reflected in their financial statements.

24 Contingent assets and liabilities

The Board is not aware of the existence of any contingent assets or contingent liabilities.

25 Remuneration of board members

Members of the board and committee during the 2012-13 financial year were:

Board of the Botanic Gardens & State Herbarium
Cross, K E (retired 9 July 2012)
Dimonte R (appointed 10 July 2012)
Elstob, C A
Howe, A D
Jenkinson, H S
Knox, D J W
Levy, J A W
Potter, J *
Stirling I F (appointed 10 July 2012)
Storkey, G D (retired 9 July 2012)

** Presiding Member*

The number of members whose remuneration received or receivable falls within the following bands:	2013 No. of members	2012 No. of members
$nil	2	2
$10 000 - $19 999	7	7
$20 000 - $29 999	1	1
Total number of members	10	10

Remuneration of members reflects all costs of performing board/committee member duties including sitting fees and super contributions, salary sacrifice benefits and fringe benefits and any fringe benefits tax paid or payable in respect of those benefits. The total remuneration received or receivable by members was $115 000 (2012: $112 000).

In accordance with the Premier and Cabinet Circular No. 016, government employees are not entitled to receive any remuneration for board/committee duties during the financial year. There were no government employees on the Board.

26 Events after the reporting period

There are no known events after balance date that affect these general purpose financial statements in a material manner.

27 Financial instruments / financial risk management

Categorisation of financial instruments

Details of the significant accounting policies and methods adopted including the criteria for recognition, the basis of measurement, and the basis on which income and expenses are recognised with respect to each class of financial asset, financial liability and equity instrument are disclosed in Note 2 Summary of Significant Accounting Policies.

Category of financial assets and financial liabilities	Note number	2013		2012	
		Carrying amount	Fair value	Carrying amount	Fair value
		$'000	$'000	$'000	$'000
Financial assets					
Cash and cash equivalents	16	3,534	3,534	3,068	3,068
Receivables [1]	17	87	87	56	56
Financial liabilities					
Payables [1]	20	56	56	12	12

(1) Receivable and payable amounts disclosed here exclude amounts relating to statutory receivables and payables. In government, certain rights to receive or pay cash may not be contractual and therefore in these situations, the requirements will not apply. Where rights or obligations have their source in legislation such as levy receivables/payables, tax equivalents, commonwealth tax etc they would be excluded from the disclosure. The standard defines contract as enforceable by law. All amounts recorded are carried at cost (not materially different from amortised cost).

Fair Value

The Board does not recognise any financial assets or financial liabilities at fair value. Refer to Note 2 Summary of Significant Accounting Policies and Notes relevant to financial assets and financial liabilities.

Credit risk

Credit risk arises when there is the possibility of the Board's debtors defaulting on their contractual obligations resulting in financial loss to the Board. The Board measures credit risk on a fair value basis and monitors risk on a regular basis.

The carrying amount of financial assets as detailed in the table represents the Board's maximum exposure to credit risk.

No collateral is held as security and no credit enhancements related to financial assets held by the Board.

The Board has minimal concentration of credit risk. The Board has policies and procedures in place to ensure that transactions occur with customers with appropriate credit history. The Board does not engage in high risk hedging for its financial assets.

Allowances for impairment of financial assets are calculated on past experience and current and expected changes in credit rating. At reporting date, there is no evidence to indicate that any of the financial assets are impaired.

Ageing analysis of financial assets

The following table discloses the ageing of financial assets, past due, including impaired assets past due.

Financial assets item	Current (Not overdue)	Overdue for < 30 days	Overdue for 30–60 days	Overdue for > 60 days	Total
	$'000	$'000	$'000	$'000	$'000
2013					
Not impaired					
Receivables	73	14	-	-	87
2012					
Not impaired					
Receivables	51	4	-	1	56

Maturity analysis of financial assets and liabilities

All financial assets and liabilities are due to mature within one year.

Liquidity risk

Liquidity risk arises where the Board is unable to meet its financial obligations as they are due to be settled. The Board works with the Department of Treasury and Finance to determine the cash flows associated with its Government approved program of work and to ensure funding is provided through SA Government budgetary processes to meet the expected cash flows. The Board settles undisputed accounts within 30 days from the date of the invoice or date the invoice is first received. In the event of a dispute, payment is made 30 days from resolution.

The Board's exposure to liquidity risk is insignificant based on past experience and current assessment of risk.

The carrying amount of financial liabilities recorded in the Table Categorisation of financial instruments represent the department's maximum exposure to financial liabilities.

Market risk
The Board has no interest bearing liabilities as at the end of the reporting period. There is no exposure to foreign currency or other price risks.

Sensitivity disclosure analysis
A sensitivity analysis has not been undertaken for the interest rate risk of the Board as it has been determined that the possible impact on profit and loss or total equity from fluctuations in interest rates is immaterial.

28 Activities undertaken by Department of Environment, Water and Natural Resources

The following details the expenses and revenues incurred by the Department of Environment, Water and Natural Resources in performing activities associated with the Board.

	2013 $'000	2012 $'000
Expenses from ordinary activities		
Employee benefits	4,870	4,885
Supplies and services	3,254	3,167
Grants and subsidies	-	118
Depreciation expense	284	169
Net Loss from disposal of non-current assets	(6)	(3)
Other expenses	-	1,418
Total: Expenses from ordinary activities	8,402	9,754
Revenues from ordinary activities		
Revenues from fees and charges	4	29
Grant revenues	1,952	4,250
Other income	118	92
Total: Revenues from ordinary activities	2,074	4,371
Net cost of activities undertaken by Department of Environment, Water and Natural Resources	6,328	5,383

Board of the Botanic Gardens and State Herbarium

Appendices

APPENDIX 1: PUBLICATIONS

Staff or associates assigned to the business of the Board are in **bold**. * denotes refereed publication.

***Aleman R, Ainsley PJ**, Gibbs J, Tiver F, **Jusaitis M** (2011). Germination requirements of *Brachyscome species* in South Australia. *The South Australian Naturalist* 85: 71–75.

Barker RM (2012). David Symon (1920–2011). *Australasian Systematic Botany Society Newsletter* 151: 10–11, 18–19.

Barker RM, Clarkson JG (2012). Biological Control of Weeds in Australia [book review]. *Australasian Systematic Botany Society Newsletter* 151: 27–29.

***Barker RM** (2013). Zygophyllaceae. In: Wilson AJG (ed.), *Flora of Australia* 26: 511–579. (Australian Biological Resources Study: Canberra, CSIRO Publishing: Collingwood).

***Barker RM** (2013). Appendix: new taxa, combinations and lectotypifications — Zygophyllaceae: *Tribulus*. In: Wilson AJG (ed.), *Flora of Australia* 26: 584. (Australian Biological Resources Study: Canberra, CSIRO Publishing: Collingwood).

***Barker RM, Lang PJ** (2012). Name changes associated with the South Australian census of vascular plants for the calendar year 2011. *Journal of the Adelaide Botanic Gardens* 25: 97–103 (**Kellermann J**, ed.).

Barker WR (2012). New Zealand *Euphrasia* — a call for photographic evidence of floral coloration and locations. *Trilepidia* 105: 5–7.

Barker WR (2013). From the President. *Australasian Systematic Botany Society Newsletter* 153: 1–4.

Barker WR (2013). Nancy Burbidge Medal presented to Bruce Maslin. *Australasian Systematic Botany Society Newsletter* 153: 24.

Barker WR (2013). From the President. *Australasian Systematic Botany Society Newsletter* 154: 1–2.

Barker WR, Barrett R, Clarkson JR (eds) (2013). *Australasian Systematic Botany Society Newsletter* 153 & 154.

Barker WR, Thiele KR, Breitwieser I (2013). Sustaining Australasian plant systematics at a time of major achievement. *Australasian Systematic Botany Society Newsletter* 153: 31–32.

*Barrett C, Davis J, Leebens-Mack J, **Conran J**, Stevenson D (2013). Plastid genomes and deep relationships among the commelinid monocot angiosperms. *Cladistics* 29: 65–87.

*Barrett RL, Wilson KL (2012). *Gahnia halmaturina* (Cyperaceae: Schoeneae), a new species from Kangaroo Island, South Australia. *Journal of the Adelaide Botanic Gardens* 25: 1–4 (**Kellermann J**, ed.).

Bell G (2013). *One million and counting: history and special collections of the State Herbarium of South Australia* [reprint]. (State Herbarium of South Australia: Adelaide).

*Bell JD, Ganachaud A, Gehrke PC, Hobday AJ, Hoegh-Guldberg O, Johnson JE, Le Borgne R, Lehodey P, Lough JM, Pickering TD, Pratchett MS, Sikivou M, **Waycott M** (2013). Vulnerability of fisheries and aquaculture to climate change in Pacific island countries and territories. In: Johnson JE, Bell JD, De Young C (eds), *Priority adaptations to climate change for Pacific fisheries and aquaculture: reducing risks an capitalizing on opportunities*: 25–109. (Food and Agriculture Organisation of the United Nations: Rome).

*Bell JD, Ganachaud A, Gehrke PC, Griffiths SP, Hobday AJ, Hoegh-Guldberg O, Johnson JE, Le Borgne R, Lehodey P, Lough JM, Matear RJ, Pickering TD, Pratchett MS, Gupta AS, Senina I, **Waycott M** (2013). Mixed responses of tropical Pacific fisheries and aquaculture to climate change. *Nature Climate Change* 3: 591–599.

Bickerton D, **Waycott M, Calladine A**, Urban R (2013). Building a south Australian database of biological life histories and disturbance responses. *Australasian Plant Conservation* 21(4): 11–13.

*Biffin E, Brodribb TJ, Hill RS, Thomas P, **Lowe AJ** (2012). Leaf evolution in Southern Hemisphere conifers tracks the angiosperm ecological radiation. *Proceedings of the Royal Society, Biological Science* 279: 341–348.

*Blair D, McMahon A, McDonald B, Tikel D, **Waycott M**, Marsh H (2013). Pleistocene sea level fluctuations and the phylogeography of the dugong in Australian waters. *Marine Mammal Science*. doi: 10.1111/mms.12022 [published online]

*Breed MF, Gardner MG, Ottewell KM, Navarro CM, **Lowe AJ** (2012). Changing trade-offs between inbreeding costs and reproductive assurance in Central American big-leaf mahogany (*Swietenia macrophylla*). Ecology Letters 15: 444–452.

*Breed MF, Marklund MHK, Ottewell KM, Gardner MG, Harris JBC, **Lowe AJ** (2012). Pollen diversity matters: revealing the neglected effect of pollen diversity on fitness in fragmented landscapes. *Molecular Ecology* 21: 5955–5968.

*Breed MF, Ottewell KM, Gardner MG, Marklund MHK, Stead MG, Harris JBC, **Lowe AJ** (2012). Mating system and early viability resistance to habitat fragmentation in a bird-pollinated eucalypt. *Heredity*. doi: 10.1038/hdy.2012.7 [published online]

*Breed MF, Stead M, Ottewell K, Gardner MG, **Lowe AJ** (2013). Which provenance and where? Seed sourcing strategies for revegetation in a changing environment. *Conservation Genetics* 14: 1–10.

Bridle T, **Catcheside P** (2012). Annual Report of the Adelaide Fungal Studies Group. *South Australian Naturalist* 86: 104–109.

***Brodie CJ** (2013). Passifloraceae (version 2). In: **Kellermann J** (ed.), *Flora of South Australia* (ed. 5). 5 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

Brodie CJ, Vonow HP, Lang PJ (2013). *Annual report on new plant naturalisations in SA. Milestone Report. Subproject 2.3: Regional landscape surveillance for new weed threats (RC095360/10 Priority capacity, surveillance and control needs for SA's NRM biosecurity, State NRM Program Program 2012–13)*. Report for Science, Monitoring and Knowledge, Department of Environment, Water and Natural Resources. 15 pp. (State Herbarium of South Australia: Adelaide).

Canty P (2013). *The old tram barn: a short history of the Tram Barn A, now housing the State Herbarium of South Australia* [reprint]. (State Herbarium of South Australia: Adelaide).

***Catcheside PS**, Catcheside DEA (2012). *Boletus edulis* (Boletaceae), a new record for Australia. *Journal of the Adelaide Botanic Garden* 25: 9–13 (**Kellermann J**, ed.).

Catcheside PS, May T, Leonard P, Robinson R, Bridle T, Lloyd S (2013). New Targets for Fungimap. *Fungimap Newsletter* 48: 4–6

*Cavers S, Telford A, Arenal Cruz F, Pérez Castañeda AJ, Valencia R, Navarro C, Buonamici A, **Lowe AJ**, Vendramin GG (2013). Cryptic species and phylogeographical structure in the tree ***Cedrela odorata*** L. throughout the Neotropics. *Journal of Biogeography* 40: 732–746.

***Chinnock RJ**, StajsicV, **Brodie CJ** (2012). *Mesembryanthemum guerichianum* Pax (Aizoaceae): a weedy alien species new to Australia. *Plant Protection Quartely* 27: 83–88.

*Clarke LJ, Jardine D, Byrne M, Shepherd K, **Lowe AJ** (2012). Using population genetic structure to inform management of the highly restricted Atriplex sp. Yeelirrie Station. *Australian Journal of Botany* 60: 32–41.

*Collier CJ, **Waycott M**, McKenzie LJ (2012). Light thresholds derived from seagrass loss in the coastal zone of the northern Great Barrier Reef, Australia. *Ecological Indicators* 23: 211–219.

*Collier CJ, **Waycott M**, Ospina AG (2012). Responses of four Indo-West Pacific seagrass species to shading. *Marine Pollution Bulletin* 65: 342-354.

***Conran JG** (2012). The genus Alisma L. (Alismataceae) in South Australia. *Journal of the Adelaide Botanic Gardens* 25: 11–15 (**Kellermann J**, ed.).

***Conran JG, Barker RM**, Rippey E (2012). *Malva weinmanniana* (Besser ex Rchb.) Conran, a new name for the pink-flowered form of M. *preissiana* Schltdl. (Malvaceae). *Journal of the Adelaide Botanic Gardens* 25: 17–25 (**Kellermann J**, ed.).

Conran JG, Li J (2012). A preliminary report of small mammal frugivory on *Balanophora harlandii* (Balanophoraceae). *Zhiwu Fenlei yu Ziyuan Xuebao* [Plant Diversity and Resources] 34: 466–470.

*Cooke, D.A. (2013). Centrolepidaceae (version 2). In: **Kellermann J** (ed.), *Flora of South Australia* (ed. 5). 7 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

*Costion CM, Liston J, Kitalong AH, Ida A, **Lowe AJ** (2012). Using the ancient past for establishing current threat in poorly inventoried regions. *Biological Conservation* 147: 153–162.

Cumpston N, Slade L (2013). *Paper ink and ochre: A selection of work from the Art Gallery of South Australia's indigenous works on paper. Santos Museum of Economic Botany, Adelaide Botanic Garden, 15 September 2013–27 January 2013* [exhibition catlalogue]. (Botanic Gardens of Adelaide: Adelaide).

*__Cunningham DD__ (2011). Tamaricaceae (version 1). In: __Kellermann J__ (ed.), *Flora of South Australia* (ed. 5). 4 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

*__Dixon RRM__, Huisman JM, Buchana J, __Gurgel CFD__, Spencer PA (2012). Morphological and molecular study of austral *Sargassum* (Fucales, Phaeophyceae) supports the recognition of *Phyllotricha* at genus level, with a further addition to the resurrected genus *Sargassopsis*. *Journal of Phycology* 48: 1119–1129.

*__Dowling N, Jusaitis M__ (2012). Asymbiotic in vitro germination and seed quality assessment of Australian terrestrial orchids. *Australian Journal of Botany* 60: 592–601.

Ely ME, __Pitman SD__ (2012). *Green Infrastructure: Life support for human habitats. The compelling evidence for incorporating nature into urban environments*. Report for Department of Environment, Water and Natural Resources, South Australia. (Botanic Gardens of Adelaide: Adelaide).

__Forbes SJ__ (2012). Enquiry into plants: nature, utopia and the botanic garden. In: Giesecke A, Jocobs N (eds), *Earth Perfect: nature utopia and the garden*: 220–224. (Black Dog: London).

__Forbes SJ, Kanellos T__ (2013). Wood in the economy of nature and the economy of man. In: Parkes B, Rich E (eds), *Wood: art, design, architecture*: 18–33. (JamFactory; Botanic Gardens of Adelaide: Adelaide).

*Fox S, __Waycott M__, Blair D, Luly J (2012). Regional genetic differentiation in the spectacled flying fox (*Pteropus conspicillatus Gould*). In: Haberle SG, David B (eds), *Peopled Landscapes: Archaeological and Biogeographic Approaches to Landscapes* 34: 459–472. (ANU E Press, Australian National University: Canberra). [Terra Australis 34].

*Guerin GR, Biffin E, __Lowe AJ__ (2013). Spatial modelling of species turnover identifies climate ecotones, climate change tipping points and vulnerable taxonomic groups. *Ecography* 36. doi: 10.1111/j.1600-0587.2013.00215.x [published online]

*Guerin GR, __Lowe AJ__ (2012). Multi-species distribution modelling highlights the Adelaide Geosyncline, South Australia, as an important continental-scale arid-zone refugium. *Austral Ecology* 38: 427–432.

*Guerin GR, __Lowe AJ__ (2013). Leaf morphology shift: new data and analysis support climate link. *Biology Letters* 9: 20120860. doi: 10.1098/rsbl.2012.0860 [published online]

*Guerin GR, __Lowe AJ__ (2013). Systematic monitoring of heathy woodlands in a Mediterranean climate — a practical assessment of methods. *Environmental Monitoring and Assessment* 185: 3959–3975.

*Guerin GR, Wen H, __Lowe AJ__ (2012). Leaf morphology shift linked to climate change. *Biology Letters* 8: 882–886.

*Gulbransen D, McGlathery K, Marklund M, Norris JN, __Gurgel CFD__ (2013). *Gracilaria vermiculophylla* in the Virginia (VA) Coastal Bays, USA: cox1 analysis reveals the genetic diversity of an invasive macroalga. *Journal of Phycology* 48: 1278–1283.

__Gurgel CFD__ (2013). *The Marine Macroalgae of the Deep Creek Conservation Park, Adelaide and Monty Lofty Ranges Natural Resource Management Region*. 44 pp. (The University of Adelaide; Department for Environment and Natural Resources: Adelaide).

*Harris AJ, Dormontt EE, Le Roux JJ, __Lowe AJ__, Leishman M (2012). No consistent association between changes in genetic diversity and adaptive responses in novel ranges for invasive Australian acacias. *Evolutionary Ecology* 26: 1345–1360.

*Harvey AS, Woelkerling WJ, Huisman JM, __Gurgel CFD__ (2013). A monographic account of Australian species of *Amphiroa* (Corallinaceae, Rhodophyta). *Australian Systematic Botany* 26: 81–144.

*Hereward JP, Walter GH, DeBarro PJ, __Lowe AJ__, Riginos C (2013). Gene flow in the green mirid, *Creontiades dilutus* (Hemiptera: Miridae), across arid and agricultural environments with different host plant species. *Ecology and Evolution* 3: 807–821.

*__Jessop JP__ (2012). Key to families (version 1). In: __Kellermann J__ (ed.), *Flora of South Australia* (ed. 5). 18 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

*__Jessop JP, Conran JG__ (2013). Commelinaceae (version 2). In: __Kellermann J__ (ed.), *Flora of South Australia* (ed. 5). 5 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

*Jolley HM, __Bell GH__, Milne J (2013). 57. Pottiaceae: *Hennediella*. In: McCarthy PM (ed.), *Australian Mosses Online*. 3 pp. (Australian Biological Resources Study: Canberra). www.anbg.gov.au/abrs/Mosses_online/

*Jolley HM, __Bell GH__, Milne J (2013). 57. Pottiaceae: *Phascopsis*. In: McCarthy PM (ed.), *Australian Mosses Online*. 2 pp. (Australian Biological Resources Study: Canberra). www.anbg.gov.au/abrs/Mosses_online/

*Jolley HM, __Bell GH__, Milne J (2013). 57. Pottiaceae: *Pterygoneurum*. In: McCarthy PM (ed.), *Australian Mosses Online*. 3 pp. (Australian Biological Resources Study: Canberra). www.anbg.gov.au/abrs/Mosses_online/

*Jolley HM, __Bell GH__, Milne J (2013). 57. Pottiaceae: *Stonea*. In: McCarthy PM (ed.), *Australian Mosses Online*. 3 pp. (Australian Biological Resources Study: Canberra). www.anbg.gov.au/abrs/Mosses_online/

*Jolley HM, __Bell GH__, Milne J (2013). 57. Pottiaceae: *Trachycarpidium*. In: McCarthy PM (ed.), *Australian Mosses Online*. 2 pp. (Australian Biological Resources Study: Canberra). www.anbg.gov.au/abrs/Mosses_online/

__Jusaitis M__ (2012). Serendipity during long-term monitoring of translocation trials. *Australasian Plant Conservation* 20(3): 8–10.

__Kanellos T__ (2012). A collection of 19th century German models in the Santos Museum of Economic Botany. In: *Treasures and traditions of the German community: Proceedings of a workshop held at The University of Adelaide on the 12th of May 2012*: 10–16. (Friends of Lutheran Archives; German Heritage Research Group: Adelaide).

*Kantvilas G, Kondratyuk SY (2013). New species of *Caloplaca* (lichenised Ascomycota: Teloschistaceae) from Kangaroo Island. *Journal of the Adelaide Botanic Gardens* 26: 9–14 (__Kellermann J__, ed.). flora.sa.gov.au/jabg [published online]

*Kantvilas G, van den Boom PPG (2013). A new saxicolous species of *Catillaria* (lichenised Ascomycetes: Catillariaceae) from southern Australia. *Journal of the Adelaide Botanic Gardens* 26: 5–8 (__Kellermann J__, ed.). flora.sa.gov.au/jabg [published online]

__Kellermann J, Barker RM, Waycott M__ (2013). *Why are new species described?* [reprint]. (State Herbarium of South Australia: Adelaide).

*Kolesik P, __Barker WR__ (2013). First known gall midge (Diptera: Cecidomyiidae) feeding on *Hakea* (Proteaceae). *Australian Journal of Entomology*. doi: 10.1111/aen.12026 [published online]

*__Lang P__, Barlow BA (2013). Loranthaceae (version 1). In: __Kellermann J__ (ed.), *Flora of South Australia* (ed. 5). 17 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

__Lang PJ, Kellermann J, Bell GH, Cross HB__ (2013). *Flora survey on Hiltaba Station and Gawler Ranges National Park: vascular plants, macrofungi, lichens, and bryophytes*. Report for Bush Blitz, Australian Biological Resources Study, Canberra. 188 pp. (Department of Environment, Water and Natural Resources, South Australia: Adelaide).

*Lee DE, __Conran JG__, Lindqvist JK, Bannister JM, Mildenhall DC (2012). New Zealand Eocene, Oligocene and Miocene macrofossil and pollen records and modern plant distributions in the Southern Hemisphere. *Botanical Review* 78: 235–260.

*Lepschi B, Barlow BA (2012). Santalaceae (version 1). In: __Kellermann J__ (ed.), *Flora of South Australia* (ed. 5). 18 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

*Lindenmayer DB, Gibbons P, Bourke M, Burgman M, Dickman CR, Ferrier S, Fitzsimons J, Freudenberger D, Garnett S, Groves C, Hobbs R, Kingsford RT, Krebs C, Legge S, __Lowe AJ__, McLean R, Possingham H, Radford J, Robinson D, Thomas D, Varcoe T, Vardon M, Wardle G, Woinarski J, Zerger A (2012). Improving biodiversity monitoring in Australia. *Austral Ecology* 37: 285–294.

*Lindenmayer DB, Likens GE, Andersen A, Bowman D, Bull M, Burns E, Dickman CR, Hoffmann AA, Keith D, Liddell MJ, __Lowe AJ__, Metcalfe DJ, Phinn SR, Russell-Smith J, Thurgate N, Wardle GM (2012). The value and importance of long-term ecological studies. *Austral Ecology* 37: 745–757.

__Lowe AJ, Cross H__ (2012). DNA based methods leave illegal loggers with no place to hide. *The Conversation*. theconversation.edu.au/dna-based-methods-leave-illegal-loggers-with-no-place-to-hide-8980 [published online]

*Maslin BR, **O'Leary M**, Reid JE, Miller JT (2012). The type of *Acacia aneura* (Mulga: Fabaceae) and ambiguities concerning the application of this name. *Nuytsia* 22: 269–294.

*McCallum KP, Guerin GR, Breed MF, **Lowe AJ** (2013). Combining population genetics, species distribution modelling and field assessments to understand a species' vulnerability to climate change. *Austral Ecology*. doi: 10.1111/aec.12041 [published online]

*McCarty PM, Kantvilas G (2013). *Psoroglaena halmaturina* sp. nov. (lichenised Ascomycota, Verrucariaceae) from Kangaroo Island, South Australia. *Journal of the Adelaide Botanic Gardens* 26: 1–4 (**Kellermann J**, ed.). flora.sa.gov.au/jabg [published online]

*McCarty PM, Kantvilas G (2013). Two new species of *Sarcogyne* (lichenised Ascomycota: Acarosporaceae) from central and southern Australia. *Journal of the Adelaide Botanic Gardens* 26: 15–21 (**Kellermann J**, ed.). flora.sa.gov.au/jabg [published online]

McKenzie L, Collier C, **Waycott M**. (2012). *Reef Rescue Marine Monitoring Program: Nearshore Seagrass, Annual Report for the sampling period 1st July 2010–31st May 2011*. 177 pp. (Fisheries Queensland: Cairns).

McKenzie L, Collier C, **Waycott M**, Unsworth R, Yoshida R and Smith N (2012). Monitoring inshore seagrasses of the GBR and responses to water quality. In: Yellowlees D, Hughes TP (eds), *Proceedings of the 12th International Coral Reef Symposium 9–13 July 2012, Cairns, Queensland, Australia*. (James Cook University: Townsville). www.icrs2012.com/proceedings/ [published online]

*Mellick R, **Lowe A**, Allen C, Hill RS, Rossetto M (2012). Palaeodistribution modelling and genetic evidence highlight differential post-glacial range shifts of a rain forest conifer distributed across a latitudinal gradient. *Journal of Biogeography* 39: 2292–2302.

*Miller CH, West JG (2012). A revision of the genus Stellaria (Caryophyllaceae) in Australia. *Journal of the Adelaide Botanic Gardens* 25: 27–54 (**Kellermann J**, ed.).

Morphett B (2012). *Garden weeds: a gardener's guide to identifying and controlling weeds* [revised, 3rd edition]. 159 pp. (Board of the Botanic Gardens and State Herbarium; Department of Environment, Water and Natural Resources: Adelaide).

*Ndlovu J, Richardson DM, Wilson JRU, **O'Leary M**, Le Roux JJ (2013). Elucidating the native sources of an invasive tree species, *Acacia pycnantha*, reveals unexpected native range diversity and structure. *Annals of Botany* 111: 895–904.

*Parr L, Santos FR, **Waycott M**, Vianna JA, McDonald B, Caballero S, de Souza Lopes MJ (2012). Sirenian genetics and demography. In: Hines EM, Reynolds III JE, Aragones LV, Mignucci-Giannoni AA, Marmontel M (eds), *Sirenian conservation: issues and strategies in developing countries:* 168–178. (University Press of Florida: Gainesville, FL).

*Pavlacky DC Jr, Possingham HP, **Lowe AJ**, Prentis PJ, Green DJ, Goldizen AW (2012). Anthropogenic landscape change promotes asymmetric dispersal and limits regional patch occupancy in a spatially structured bird population. *Journal of Animal Ecology* 81: 940–952.

*Peterson BJ, Bricker E, Brisbin SJ, Furman BT, Stubler AD, Carroll JM, Berry DL, Gobler CJ, **Calladine A, Waycott M** (2013). Genetic diversity and gene flow in *Zostera marina* populations surrounding Long Island, New York, USA: No evidence of inbreeding, genetic degradation or population isolation. *Aquatic Botany*. doi: 10.1016/j.aquabot.2013.05.003 [published online]

***Pitman SD**, Ely ME (2012). From Grey to Green: Life support for human habitats. In: *Proceedings from the 6th International Conference and Workshop on the Built Environment in Developing Countries (ICBEDC-2012).* (University of South Australia: Adelaide).

*Reichgelt T, Parker W, Martz J, **Conran JG**, van Konijnenburg-van Cittert J, Kürschner W (2013). The palynology of the Sonsela member (Late Triassic, Norian) at Petrified Forest National Park, Arizona, USA. *Review of Palaeobotany and Palynology* 189: 18–28.

*Reynolds LK, McGlathery KJ, **Waycott M** (2012). Genetic diversity enhances restoration success by augmenting ecosystem services. *PloS one* 7(6): e38397. doi: 10.1371/journal.pone.0038397 [published online]

*Reynolds LK, **Waycott M**, McGlathery KJ, Orth RJ, Zieman JC (2012). Eelgrass restoration by seed maintains genetic diversity: case study from a coastal bay system. *Marine Ecology Progress Series* 448: 223–233.

*Roda F, Ambrose L, Walter GM, Liu HL, Schaul A, **Lowe A**, Pelser PB, Prentis P, Rieseberg LH, Ortiz-Barrientos D (2013). Genomic evidence for the parallel evolution of coastal forms in the ***Senecio lautus*** complex. *Molecular Ecology* 22: 2941–2952.

*Rudall PJ, **Conran JG** (2012). Systematic placement of Dasypogonaceae among commelinid monocots: evidence from flowers and fruits. *Botanical Review* 78: 398–415.

*Sauvage T, Payri C, Draisma SGA, Prud'homme van Reine WF, Verbruggen H, **Belton GS, Gurgel CFD**, Gabriel D, Sherwood AR, Fredericq S (2013). Molecular diversity of the *Caulerpa racemosa-peltata* complex (Caulerpaceae, Caulerpales) in New Caledonia, with new Australasian records for the variety *cylindracea*. *Phycologia* 52: 6–13.

*Scoble JA, **Lowe AJ**, Gardner MG (2012). Isolation via 454 sequencing, and characterisation of microsatellites for *Drymodes brunneopygia*, southern scrub-robin (Aves: Petroicidae): a species at risk due to substantial habitat loss and climate change. *Conservation Genetic Resources* 4: 331-333.

*Spain CS, **Lowe AJ** (2012). Genetic consequences of subtropical rainforest fragmentation on *Macadamia tetraphylla* (Proteaceae). *Silvae Genetica* 60: 241–248.

*Sun Z, Hanyuda T, Lim PE, Tanaka J, **Gurgel CFD**, Kawai H (2013). Taxonomic revision of the genus *Lobophora* (Dictyotales, Phaeophyceae) based on morphological evidence and analyses of *rbc*L and *cox*3 gene sequences. *Phycologia* 51: 500–512.

*Telford IRH (2012). Cucurbitaceae (version 1). In: **Kellermann J** (ed.), *Flora of South Australia* (ed. 5). 10 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

Thiele KR, **Barker WR**, Breitwieser I (2013). Sustaining Australasian plant systematics, a more detailed proposal for going forward. *Australasian Systematic Botany Society Newsletter* 154: 15–16.

***Toelken HR** (2012). Notes on *Hibbertia* (Dilleniaceae) 7. *H. hermanniifolia* group (subgen. *Hemistemma*) from mainly temperate eastern Australia. *Journal of the Adelaide Botanic Gardens* 25: 55–70 (**Kellermann J**, ed.).

***Toelken HR**, Miller RT (2012). Notes on *Hibbertia* (Dilleniaceae) 8. Seven new species, a new combination and four new subspecies from subgen. *Hemistemma*, mainly from the central coast of New South Wales. *Journal of the Adelaide Botanic Gardens* 25: 71–96 (**Kellermann J**, ed.).

*Verbruggen H, Tyberghein L, **Belton GS**, Mineur F, Jueterbock A, Hoarau G, **Gurgel CFD**, De Clerck O (2013). Improving Transferability of Introduced Species' Distribution Models: New Tools to Forecast the Spread of a Highly Invasive Seaweed. *PLoS ONE* 8(6): e68337. doi: 10.1371/journal.pone.0068337 [published online]

*Walsh NG, **Kellermann J** (2013). Papaveraceae (partly) (version 2). In: **Kellermann J** (ed.), *Flora of South Australia* (ed. 5). 8 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

Waycott M (2013). *The State Herbarium of South Australia* [corrected reprint]. (State Herbarium of South Australia: Adelaide).

*Wei N, Dick CW, **Lowe AJ**, Gardner MG (2013). Polymorphic microsatellite loci for *Virola sebifera* (Myristicaceae) derived from shotgun 454 pyrosequencing. *Applications in Plant Sciences* 1. doi: 10.3732/apps.1200295 [published online]

White IA, Foulkes JN, Sparrow BD, **Lowe AJ** (2012). Biodiversity monitoring in the Australian rangelands. In: Lindenmayer D, Gibbon P (eds), *Biodiversity Monitoring in Australia*: 179–190. (CSIRO Publishing: Collingwood).

*Wilson PG, **Chinnock RJ** (2013). Chenopodiaceae (version 1). In: **Kellermann J** (ed.), *Flora of South Australia* (ed. 5). 111 pp. (State Herbarium of South Australia: Adelaide). flora.sa.gov.au/ed5

APPENDIX 2: PRESENTATIONS

Bell GH (2012). So what's a bryophyte, and who cares anyway? *Trees for Life Group*, Willunga, 3 October 2012.

Belton GS, Prud'homme van Reine WF, Huisman JM, Draisma SGA, **Gurgel CFD** (2012). *Caulerpa* of southern Australia. *26th Australasian Society for Phycology and Aquatic Botany Annual Conference*, Adelaide, 12–15 Nov. 2012.

Brodie CJ (2012). Herbaria and collection of specimens. *Friends of Great Victoria Desert*, Mile End, 16 Nov. 2012.

Calladine A (2013) [convenor of workshop]. *Workshop on collection, processing and philosophy of making herbarium voucher specimens and tissue samples for DNA analysis of submerged aquatic vegetation*. University of Virginia, USA, Apr. 2013.

Catcheside PS (2012). New species of south Australian Fungi. *Friends of Adelaide Botanic Gardens*, Adelaide, 17 Apr. 2012.

Catcheside PS (2013). Second edition of field guide to Australian fungi: "Fungi Down Under". *Fungimap Conference*, Rawson, Vic., 23–28 May 2013.

Catcheside PS (2013). The variety and importance of fungi. *Adelaide Botanic Gardens*, presentation to trainee staff, Adelaide, 16 Apr. 2013.

Catcheside PS (2013). Fungi, their variety and importance. *Junior Field Naturalists Society*, Adelaide, 2 May 2013.

Catcheside PS (2013). Fungi in the South-east: Fungi, their variety, ecology and roles. *Public in Mount Gambier*, Mount Gambier Library, 5 June 2013.

Catcheside PS (2013). Fungi of Kangaroo island, their variety, ecology and roles. *Friends of Kangaroo Island Parks*, Kingscote NRM, 21 June 2013.

Catcheside PS, Packer J, Bridle T (2012). The kingdom of the fungi: their variety, evolution, ecology and importance. *Arbury Park Outdoor School*, Arbury Park, 3 Aug. 2012.

Chasani AR, Edyvane K, **Gurgel CFD** (2012). Molecular systematics and biogeography of selected tropical macroalgae in the Wallacea Region. *26th Australasian Society for Phycology and Aquatic Botany Annual Conference*, Adelaide, 12–15 Nov. 2012.

Chinnock RJ (2013). Cactaceae, the good the bad and the ugly. *Australian Invasive Cacti Forum*, Hahndorf, 23–24 May 2013.

Collier C, **Waycott M**, McKenzie L, Rasheed M (2012). Growth requirements of dynamic seagrass habitats: working towards thresholds. *12th International Coral Reef Symposium*, Cairns, 9–13 July 2012.

Cross HB, Biffin E, **Van Dijk KJ, Fuentes-Cross P, Lowe AJ, Waycott M** (2013). Exploring plant genomic biodiversity in South Australia [poster & 'lightning talk']. *CBA Biodiversity Genomics Conference*, Canberra, 2–5 April 2013.

Cross HB (2013). Exploring plant genomic diversity in South Australia. *CBA Biodiversity Genomics Conference*, Canberra, 2–5 Apr. 2013.

Cross HB (2013). Plant biodiversity in South Australia using Next Generation Sequencing. *Ion Torrent Symposium*, Adelaide, 7 June 2013.

Forbes, SJ (2013). Enquiry into plants: Botanic gardens & the narrative of Harvest (2013). Earth Perfect?: Nature, Utopia & the Garden symposium, University of Delaware, 6 – 9 June 2013.

Grant W, Doyle S, **Gurgel CFD**, Grant W, Deveney M and Tanner J (2012). Next Generation Sequencing and the phylogeography of the invasive alga *Caulerpataxifolia* [poster]. *26th Australasian Society for Phycology and Aquatic Botany Annual Conference*, Adelaide, 12–15 Nov. 2012.

Gurgel CFD (2012). Molecular systematics of marine macroalgae: phylogenetics and phylogeography [invited speaker]. 1st *Wallace-Dawin Symposium*, Makassar, Indonesia, 3–5 Sep. 2012.

Gurgel CFD (2012). The Marine Macroalgae of the Adelaide & Mont Lofty Ranges NRM region: biology, diversity and distribution. *Adelaide & Mount Lofty Ranges Natural Resource Management Board*, Moana Surf Club, Port Noarlunga, 16 June 2012.

Kellermann J (2013). Publications and plant information. *Friends of the Adelaide Botanic Gardens*, Adelaide, 20 Mar. 2013

Lang PJ, Cross HB, Kellermann J, Brodie CJ, Vonow HP (2013). Bush Blitz to Hiltaba Station & Gawler Ranges. *It's all about the plants: State Herbarium seminar series*, Adelaide, 5 Mar. 2013.

Lowe AJ (2012). Securing the chain of custody of Merbau with DNA fingerprints [invited speaker]. *Final wrap up meeting of BELMV project on DNA timber tracking in SE Asia*. Singapore, 14 Dec. 2012.

Lowe AJ (2012). Life strikes back: How the explosion of knowledge in genomics is enhancing our ability to conserve species [invited speaker]. *22nd Annual Combined Biological Sciences Meeting*, Perth, 24 Aug. 2012.

Lowe AJ (2013). Space as a proxy for time: The Australian Transect Network [invited speaker]. *4th Annual Symposium of the Terrestrial Ecosystem Research Network*, Canberra. 19–20 Feb. 2013.

Lowe AJ, Phinn S (2013). TERN delivers for ecosystem science and management — Enabling collaborative data collection, storage and sharing to advance our understanding and ability to manage Australian [invited speaker]. *4th Annual Symposium of the Terrestrial Ecosystem Research Network*, Canberra, 19–20 Feb. 2013.

Martin K, Chinn C, Schaffelke B, Kennedy K, McKenzie L, **Waycott M**, Brando V, Thompson A, Devlin M (2012). Assessing the effectiveness of water quality management of the Great Barrier Reef. *12th International Coral Reef Symposium*, Cairns, 9–13 July 2013.

Martins NT, Runcie J, **Gurgel CFD** (2012). Comparative light absorptance characteristics between pressed and live Ulva australis Areschoug thalli. *26th Australasian Society for Phycology and Aquatic Botany Annual Conference*, Adelaide, 12–15 Nov. 2012.

McKenzie L, Collier C, **Waycott M**, Unsworth R, Yoshida R, Smith N (2012). Monitoring intertidal seagrasses of the GBR and responses to water quality. *12th International Coral Reef Symposium*, Cairns, 9–13 July 2013.

Phinn S, **Lowe AJ** (2013). TERN's national ecosystem data infrastructure is delivering productivity and efficiency gains for Australia [invited speaker]. *4th Annual Symposium of the Terrestrial Ecosystem Research Network*, Canberra, Australia. 19–20 Feb. 2013.

Pitman SD (2012). Ecological Literacy and Green Infrastructure. *Cary Institute for Ecosystem Studies*, New York State, USA. July, 2012.

Pitman SD. (2012). Green Infrastructure. *SA Murray Darling Basin Planners Forum*, Longview Winery, South Australia. November, 2012.

Pitman SD, Ely ME (2012). From Grey to Green: Life Support for Human Habitats. *6th International Conference and Workshop on the Built Environment in Developing Countries (ICBEDC-2012)*. University of South Australia. December 4-6, 2012

Pitman SD. (2013). Green Infrastructure (invited speaker). *SA Education for Sustainability Network 'Engaging with Green Spaces' forum*. Adelaide, South Australia. April, 2013.

Pitman SD. (2013). Green Infrastructure. *Adelaide University final year Design students*. Adelaide, South Australia. April, 2013.

Pitman SD, Ely ME (2013) From Grey to Green: life support for human habitats (invited speaker). *Stormwater Industry Association (SIA)*. Adelaide, South Australia. April 2013.

Pitman SD, Ely ME (2013) Green Infrastructure: Life Support for human habitats (invited speaker). *SA Water Knowledge Sharing Seminar*. Adelaide, South Australia. May 2013.

Soisup N, Lowe A, Gurgel CFD (2012). Unveiling species diversity of *Lobophora* (Dictyotales) in Australia with *rbc*L and *cox*1 DNA sequence analyses. *26th Australasian Society for Phycology and Aquatic Botany Annual Conference*, Adelaide, 12–15 Nov. 2012.

Spokes TM, Gurgel CFD (2012). Phylogeography of the marine calcified red alga *Dichotomaria marginata* (Nemaliales, Rhodophyta) along the north Australian coast and the relationship to other populations worldwide. *26th Australasian Society for Phycology and Aquatic Botany Annual Conference*, Adelaide, 12–15 Nov. 2012.

Van Dijk JK, Waycott M, Bricker E, van Tussenbroek BI (2012). Range scale genetic connectivity of the tropical seagrass *Thalassia testudinum*. *12th International Coral Reef Symposium*, Cairns, 9–13 July 2013.

Waycott M (2012). Dealing with those problematic taxonomic groups: introgressed, character reduced, ploypoid, marginal habitat, recently evolved, clonal disjunct species... *Australasian Systematic Botany Society Annual Conference*, Perth. 23–26 Sep. 2012.

Wiltshire K, Deveney M, Tanner J, **Gurgel CFD** (2013). Investigating native Rhodophyta species for potential use in Integrated Multi-Trophic Aquaculture in southern Australia. *21st International Seaweed Symposium*, Bali, Indonesia, 24–26 April 2013.

Waycott M (2013). State of Play in SA: Seagrass communities and their health/vulnerabilities in SA: an Australian and global context for knowledge on SA seagrasses [keynote presentation]. *3rd Seagrass Restoration Workshop*, SARDI Aquatic Sciences, Adelaide, 7–8 March 2013.

Waycott M (2013). Global restoration efforts, seagrass restoration in other parts of the world. *3rd Seagrass Restoration Workshop*, SARDI Aquatic Sciences, Adelaide, 7–8 March 2013.

Waycott M (2013) [co-convenor of working group]. *Australian seagrass habitats: condition and threat, workshop 2*, Australian Centre for Ecological Analysis and Synthesis, North Stradbroke Island, 19–22 March 2013.

Waycott M (2013). Background to understanding change to seagrasses in the GBR and Australia-key points influencing management and policy. *Workshop on Great Barrier Reef management issues related to water quality*, Federal Department of Sustainability, Environment, Water, Population and Communities, Canberra, 22–23 May 2013.

Waycott M, Van Dijk KJ, Collier C, McMahon K (2012). Diversity, resilience, and adaptability of seagrasses in the GBR. *12th International Coral Reef Symposium*, Cairns, 9–13 July 2013.

APPENDIX 3: CONFERENCES AND WORKSHOPS

12th International Coral Reef Symposium, Cairns, 9–13 July 2012. — Waycott M.

22nd Annual Combined Biological Sciences Meeting, Perth, 24 Aug. 2012. — Lowe AJ.

11th Australian Bryophyte Workshop, Merimbula, NSW, 2–7 Sep. 2012. — Bell GH.

1st Wallace-Dawin Symposium, Makassar, Indonesia, 3–5 Sep. 2012. — Gurgel CFD.

Australasian Systematic Botany Society Annual Conference, Perth, 23–26 Sep. 2012. — Barker WR, Kellermann J, Waycott M.

Australasian Weeds Conference, Council of Australasian Weed Societies, Melbourne, 8–11 Oct. 2012. — Brodie CJ.

Australian Institute of Marine Science, Brisbane, 9–11 Oct. 2012. — Waycott M.

Seagrass dispersal workshop, Perth, 16–17 Oct. 2012. — Waycott M.

ACAD Bioinformatics Workshop, Adelaide, 5–9 Nov. 2012. — Cross HB.

26th Australasian Society for Phycology and Aquatic Botany Annual Conference, Adelaide, 12–15 Nov. 2012. — Gurgel CFD.

Bioinfo Summer Bioinformatics Symposium/Workshop. Adelaide, 3–6 Dec. 2012 — Cross HB.

Final wrap up meeting of BELMV project on DNA timber tracking in SE Asia. Singapore, 14 Dec. 2012. — Lowe AJ.

6th Annual Meeting of the Global Plants Initiative, Panama City, Panama, 7–11 Jan. 2013. — Calladine A.

4th Annual Symposium of the Terrestrial Ecosystem Research Network, Canberra. 19–20 Feb. 2013. — Lowe AJ.

3rd Seagrass Restoration Workshop, SARDI Aquatic Sciences, Adelaide, 7–8 March 2013. — Waycott M.

Australian seagrass habitats: condition and threat, workshop 2, Australian Centre for Ecological Analysis and Synthesis, North Stradbroke Island, 19–22 March 2013. — Waycott M.

CBA Biodiversity Genomics Conference, Canberra, 2–5 Apr. 2013 (including workshops in Next Generation laboratory methods and in phylogenomics). — Cross HB.

21st International Seaweed Symposium, Bali, Indonesia, 24–26 April 2013. — Gurgel CFD.

Workshop on collection, processing and philosophy of making herbarium voucher specimens and tissue samples for DNA analysis of submerged aquatic vegetation. University of Virginia, USA, 29 Apr. 2013. — Calladine A.

Workshop on Great Barrier Reef management issues related to water quality, Federal Department of Sustainability, Environment, Water, Population and Communities, Canberra, 22–23 May 2013. — Waycott M.

Australian Invasive Cacti Forum, Hahndorf, 23–24 May 2013. — Brodie CJ, Chinnock RJ.

Fungimap Conference, Rawson, Vic., 23–28 May 2013. — Catcheside PS.

Ion Torrent Symposium, Adelaide, 7 June 2013. — Cross HB.

APPENDIX 4: RESEARCH COLLABORATIONS

Prof. Richard Abbot, University of St Andrews, UK (Prof Andrew Lowe: Plant evolutionary and ecological genetics).

Adelaide Fungal Studies Group (Mrs Pam Catcheside: Collection of macrofungi, education, training).

Dr Kyle Armstrong, SA Museum (Dr Hugh Cross: Camel diet and ecology).

Australian Plant Census (APC) network of contributors (Mrs Robyn Barker, Drs Peter Lang and Jürgen Kellermann). APC is a database of the accepted scientific names for the Australian vascular flora, both native and introduced, and lists synonyms and misapplications for these names. Taxonomy and nomenclature needs to meet international standards and may require original research or correspondence with appropriate experts.

Dr Mike Bayly, The University of Melbourne (Dr Jürgen Kellermann: Revision of the *Spyridium parvifolium* complex).

Dr Jessica Beever, Landcare Research, NZ (Graham Bell: *Flora of Australia* treatment of the moss family Pottiaceae).

Dr Edward Biffin, The University of Adelaide (Dr Peter Lang: Molecular phylogeny of *Goodenia* sect. *Goodenia*; Drs Hugh Cross and Peter Lang: DNA sequencing in Fabaceae).

Dr David Boshier, Oxford Forestry Institute, Oxford University, UK (Prof. Andrew Lowe: Tree population genetics and phylogeography).

Dr Eric Bricker, Environmental Sciences, University of Virginia, USA (Prof. Michelle Waycott: systematics, evolution and population genetics of marine plants).

Dr Mike Bunce, Murdoch University (Dr Hugh Cross: Camel diet study, ancient DNA of south-west WA caves; Prof. Michelle Waycott: ancient DNA).

Dr Dylan Burge, University of British Columbia, Canada (Dr Bill Barker: Evolution of Celastraceae subfam. Stackhousioideae; Dr Jürgen Kellermann: North American Rhamnaceae, *Ceanothus*).

Dr Tim Carruthers, Secretariat of the Pacific Regional Environment Program (Prof. Michelle Waycott: Science synthesis and communication; seagrass biology, global trends).

AProf Phill Cassey, The University of Adelaide (Prof. Michelle Waycott: Biosecurity and weeds tracking).

Prof. David Catcheside, Flinders University & Dr Teresa Lebel, National Herbarium of Victoria, Royal Botanic Gardens Melbourne (Pam Catcheside: the genus *Plicaria* in Australia).

Dr Stephen Cavers, Centre for Ecology and Hydrology, Edinburgh, UK (Prof A Lowe: Tree population genetics and phylogeography).

Dr Catherine Collier, James Cook University (Prof. Michelle Waycott: Marine monitoring, seagrass adaptations to survival, environmental drivers of ecological change).

Prof. Sean Connell, The University of Adelaide, Dr Joe Zucarello, Wellington University, NZ, Prof. John West, The University of Melbourne, Prof. Jonathan Waters, Otago University, NZ, Drs Thomas Wernber and Mads Thomsen, Edith Cowan University (Dr Fred Gurgel: ARC-NZ Research Network on marine plant phylogeography along Australia-NZ temperate coasts).

Dr John Conran, The University of Adelaide (Prof Michelle Waycott, Systematics of *Patersonia, Cassytha*, evolutionary genetics of *Cephalotus, Drosera*).

Conservation Programs, South Australian Arid Lands Region (Mr Peter Canty: Biennial monitoring of Kowari, *Dasyuroides byrnie*, populations in Sturts Stony Desert, NE South Australia).

Prof. Darren Crayn, Australian Tropical Herbarium, Cairns (Prof. Andrew Lowe: DNA barcoding and phylgoegoraphy; Prof Michelle Waycott: Systematics of tasselferns in genus *Huperzia*).

PD Dr Bernd Degen, Forest Genetics Institute, Johann Heinrich von Thünen Institute, Germany (Prof Andrew Lowe: Tree population genetics, phylogeography and tracking illegally logged timber).

Prof. Bill Dennison, Integration Application Network, University of Maryland Center for Environmental Science, USA (Prof. Michelle Waycott: Science synthesis and communication; seagrass biology, global trends).

Dr Chris Dick, Michigan University, USA (Prof. Andrew Lowe: Tree population genetics and phylogeography).

Dr Steve Donnellan, South Australian Museum (Prof Andrew Lowe, Drs Hugh Cross and Fred Gurgel: DNA barcoding and tracking).

AProf. Sean Graham, University of British Columbia, Canada. (Dr Hugh Cross: Grass and conifer research).

Drs Peter Hayman and Jason Tanner, SARDI, Profs Corey Bradshaw, Barry Brook and Alan Cooper, University of Adelaide (Prof. Andrew Lowe: Ecosystem monitoring, modelling and genomics).

Dr Pete Hollingsworth, Royal Botanic Gardens, UK and AProf. Sean Graham, University of British Columbia, Canada (Prof Andrew Lowe: DNA barcoding, biogeography and evolutionary rates).

Prof. Joe Holtum, James Cook University (Prof Michelle Waycott: systematics of tasselferns in genus *Huperzia*; evolution of plants in arid environments; *Acacia peuce*).

Prof. Paulo Horta, Universidade Federal de Santa Catarina, Brazil (Dr Fred Gurgel: Taxonomy and population genetics of selected of marine algae from Brazil).

Dr John Huisman, Murdoch University and Western Australian Herbarium. (Dr Fred Gurgel: CREEFS project; Algae of the Great Bareer Reef; molecular systematics of selected marine algae).

Prof. Hope Jahren, University of Hawaii, USA (Dr Hugh Cross: Plant isotope and genetic research).

Prof. Gary Kendrick, Oceans Institute, University of Western Australia (Prof. Michelle Waycott: Seagrass genetics, evolution and restoration ecology).

Prof. Michael Kiehn, Universität Wien, Austria (Dr Bill Barker: Karyology of Celastraceae subfam. Stackhousioideae).

Dr Annette Koenders, Edith Cowan University (Prof. Michelle Waycott: Seagrass systematics).

Prof. Paul Lavery, Edith Cowan University (Prof. Michelle Waycott: field guide production, seagrass adaptations and environmental drivers of ecological change).

Dr Teresa Lebel, National Herbarium of Victoria, Royal Botanic Gardens Melbourne. (Mrs Pam Catcheside: Boletaceous truffles).

Dr Kristina Lemson, Edith Cowan University (Prof. Michelle Waycott: Seagrass systematics).

Prof. Don Les, University of Connecticut, USA (Prof. Michelle Waycott: Systematics and evolution of seagrasses and Alismatales).

Dr John Luly, James Cook University (Prof. Michelle Waycott: Systematics and evolution of plants in arid environments; *Acacia peuce*).

AProf. Duncan Mackay, Flinders University (Dr Bill Barker: Biogeography of South Australian flora based on analysis of South Australian specimen data).

Dr Tom May, National Herbarium of Victoria, Royal Botanic Gardens Melbourne (Mrs Pam Catcheside: Fungimap, mapping and documentation of fungi in Australia; *Fungi down under, 2nd edition*).

Prof. Karen McGlathery, Environmental Sciences, University of Virginia, USA (Prof. Michelle Waycott: Systematics, evolution and population genetics of marine plants).

Dr Len McKenzie, Department of Agriculture Fisheries and Forestry Queensland (Prof. Michelle Waycott: Marine monitoring, seagrass adaptations and environmental drivers of ecological change).

Dr Kathryn McMahon, Edith Cowan University (Prof. Michelle Waycott: Seagrass systematics, populations genetic diversity, seagrass adaptations and environmental drivers of ecological change, field guide production).

Prof. Diego Medan and Ms Silvana Gambino, Universita de Buenos Aires, Argentina, and Dr Lone Aagesen, Instituto de Botanica Darwinion, Argentina (Dr Jürgen Kellermann: Floral morphology of Rhamnaceae; comparison of Australian and South American Rhamnaceae).

Dr Josephine Milne, National Herbarium of Victoria, Royal Botanic Gardens Melbourne (Mr Graham Bell: *Flora of Australia* treatment of the moss family Pottiaceae).

Drs Ethan Milton and Austin Mast, Florida State University, USA, and Dr Peter Weston, National Herbarium of New South Wales, Royal Botanic Gardens & Domain Trust (Dr Bill and Mrs Robyn Barker: *Hakea* taxonomy and systematics).

Drs Carlos Navarro and Bryan Finegan, Central American Tropical Research Institute, CATIE, Costa Rica, and Dr Heidy Villalobos, University of Costa Rica (Prof. Andrew Lowe: Tropical tree ecology, gene flow and fitness).

Prof. Stuart Phinn, University of Queensland, TERN, Dr Alex Held, CSIRO, TERN, Dr Paul Coddington, The University of Adelaide, TERN, Mr Donald Hobern, Atlas for Living Australia, CSIRO, and Dr Dan Faith, Australian Museum, GEO BON (Prof. Andrew Lowe: Ecosystem and biodiversity science, directorial and advisory roles).

Drs Peter Prentis and Daniel Ortiz-Barrientos, University of Queensland, and Dr Paul Rymer, University of Western Sydney (Prof. Andrew Lowe: Plant evolutionary genetics and genomic adaptation).

Dr Laura Reynolds, Rutgers University, USA (Prof. Michelle Waycott: Systematics, evolution and population genetics of marine plants).

Prof. Dave Richardson, Drs John Wilson and Jaco La Roux, Stellenbosch University, South Africa (Prof Andrew Lowe: Weed ecology and evolution; joint *Working for Water Programme* grant by the South African Government).

Sharon Robinson, Wollongong University, NSW (Dr Hugh Cross: Antarctic cryptogam diversity and evolution).

Dr Maurizio Rosetto, Botanic Gardens Sydney (Prof. Andrew Lowe: Phylogeography and gene flow; Dr Hugh Cross: TREND/BATS plant community ecology and evolution projects).

Dr Brian Saunders, Friends of Coffin Bay National Park (Mrs Pam Catcheside: Field guide to the fungi of lower Eyre Peninsula).

Dr Elizabeth Sinclair, University of Western Australia, Kings Park and Botanic Gardens (Prof Michelle Waycott: Seagrass genetics, evolution and restoration ecology).

Dr Paul Smith, Millennium Seed Bank, United Kingdom (Dr Phil Ainsley: Transition Programme for the SACRED Seeds Project).

Drs Anna Syme and Daniel Murphy, National Herbarium of Victoria, Royal Botanic Gardens Melbourne (Dr Hugh Cross: Grass DNA barcoding).

Drs Jennifer Tate and Cynthia Skema, Massey University, NZ, Dr Barbara Ambrose, New York Botanic Gardens, and Dr Helal Ansari, AgResearch Ltd, NZ (Dr Bill and Mrs Robyn Barker: Collaboration on Malvaceae, particularly Malveae, in Australia and New Zealand).

Dr Frank Udovicic and Mr Neville Walsh, National Herbarium of Victoria, and Drs Barbara Rye and Kevin Thiele, Western Australian Herbarium (Dr Jürgen Kellermann: Revision of Rhamnaceae for *Flora of Australia, Flora of South Australia* and *Flora of Tasmania*).

Prof. Beppe Vendramin, National Research Institute, CNR, Florence, Italy (Prof. Andrew Lowe: Tree population genetics and phylogeography).

Mr Mark Wapstra, ECOtas Environmental Consulting, Tasmania (Dr Bill Barker: new species of *Euphrasia*; Dr Jürgen Kellermann: New species of *Spyridum* in Tasmania).

AProf. Jennifer Watling, Adelaide University (Dr Hugh Cross: Lichen evolution and ecology; Antarctic cryptogam diversity and evolution).

Mr Colin Wilson, Friends of Flinders Chase National Park, Natural Resources Centre, Kangaroo Island, and Prof. David Catcheside, Flinders University (Mrs Pam Catcheside: Kangaroo Island fungi brochure).

Dr Angus Wood State Herbarium volunteer (Mr Graham Bell: Morphometric study of *Philonotis tenuis*, Bartramiaceae).

Prof. Wu Ming-Jou, Institute of Plant Biology, National Taiwan University, Taiwan (Dr Bill Barker: *Euphrasia* DNA analysis).

Prof. Yi Ting-Shuang, Kumin Institute of Botany, Chinese Academy of Science, China, and Prof. Doug Soltis, University of Florida, USA (Dr Jürgen Kellermann: World-wide phylogeny of Rhamnaceae).

Prof. Jay Zeiman, Environmental Sciences, University of Virginia, USA (Prof. Michelle Waycott: Systematics, evolution and population genetics of marine plants).

APPENDIX 5: SCIENTIFIC GRANTS

Industry Grants

Dr Phil Ainsley. Iluka Resources Ltd.: Restoration Technology Project (2010–2013). Principle researcher: Dr Jennifer Guerin.

Dr Phil Ainsley. Santos Ltd.: SACRED Seeds Project (2009-2013, $350,000).

Mr Dan Duval with Mr Matt Coulter. South East Region: Restoration of the Sand Cave Area at Naracoorte Caves National Park (2013–2014, $7,500).

Mr Dan Duval with Dr Jenny Guerin and Mr Michael Thorpe. South Australian Murray Darling Basin Natural Resources Management: Seeds of the Murray Region (2013–2014, $40,000).

Mr Dan Duval with Dr Jenny Guerin and Mr Michael Thorpe. Coorong Lower Lakes and Murray Mouth Branch: Seed Germination Research for Rehabilitation (2013–2016, $120,000).

Mr Dan Duval with Mr Michael Thorpe. Australian Landscapes Trust Calperum Station: Black Box Community Seed Biology (2013–2015, $120,000).

Dr Jenny Guerin. Hillgrove Resources Ltd.: Kanmantoo Restoration Technology Project (2013-2015, $120,000).

Competitive Grants

Mr Chris Brodie and the State Herbarium. PIRSA NRM Bio-Security: To survey SA landscape for new and existing weed threats (2011–2012, $110,000).

Mrs Pam Catcheside with Prof. DEA Catcheside. NRM Community grant; Friends of Parks, KI Western Districts Project: Improving landscape function through fungi identification on Kangaroo Island (transport, accommodation).

Mrs Pam Catcheside with Prof. DEA Catcheside. NRM Community Grant, Nature Glenelg Trust: The fungi of the south-east (transport, accommodation).

Mr Dan Duval and Dr Phil Ainsley. Australian Seed Bank Partnership: 1000 species project (2012–2013, $8,000).

Dr Jenny Guerin with Mr Dan Duval, Mr Matt Coulter and Mr Michael Thorpe. Native Vegetation Council: Propagation of Ericaceae species (2013–2016, $36,000).

Dr Fred Gurgel. CReefs-DEH-UoA Research Project: Phylogeography and Phylogenetics of Co-distributed Marine Macroalgae across Australia, as a baseline for climate change studies (2009–2012, $30,000).

Dr Fred Gurgel. Alinytjara Wilurara NRM Board Grant: Marine Flora of the Great Australian Bight and the relict species concept (2009–2012, $91,000).

Dr Fred Gurgel with Drs MR Deveney, JE Tanner, P Grewe. ARC Linkage Grant: Ecology, physiology and phylogeography, an integrated approach to the study of the invasive marine green macroalga *Caulerpa taxifolia* in Australia (2010–2012, $318,000).

Dr Fred Gurgel with Dr JM Huisman and Prof. G Kraft. Australian Biological Resources Study: The red algae of the Great Barrier Reef, first 8 families (2009–2012, $240,000).

Dr Fred Gurgel with Dr JE Tanner (Head CI) and 8 others. Fisheries Research and Development Corporation R&D Grant: Feasibility study for integrated multi-trophic aquaculture in southern Australia (2010–2013, $1,118,654).

Drs Fred Gurgel and Thomas Wernberg. ARC Linkage Grant: Long-term changes in the phenology of Australia's temperate marine macroalgae: has climate change impacted the world's most diverse algal flora? (2012–2014, $240,000).

Dr Fred Gurgel with 11 others. Premier's Science and Research Fund: Development of a sustainable South Australian macroalgal aquaculture industry (2011–2014, $1,139,567; Years 2 and 3 discontinued by the SA Government in Sep. 2012).

Prof. Andrew Lowe with Profs C Bradshaw, A van den Hengel, BW Brook and A Cooper. ARC Super Science Fellowships: Multi-model predictions of ecosystem flux under climate change based on novel genetic and image analysis methods (2011–2014, $556,000).

Prof. Andrew Lowe with Profs BW Brook and CJA Bradshaw. ARC Linkage Grant: Developing best practice approaches for restoring forest ecosystems that are resilient to climate change (2011–2014, $404,000).

Prof. Andrew Lowe with Profs T Clancy, S Phinn and J Deed. DIISRTE Collaborative Research Infrastructure Scheme, CRIS: Terrestrial Ecosystem Research Network (TERN) (2013–2014, $2.8 million).

Prof. Andrew Lowe with Drs D Crayn, C Costion, K Bransgrove, K Schulte, S Abell-Davis, D Metcalfe and M Rossetto. National Environmental Research Program, Tropical Ecosystems Hub: What is at risk? Identifying rainforest refugia and hotspots of plant genetic diversity in the Wet Tropics and Cape York Peninsula (2012–2014, $344,000).

Prof. Andrew Lowe with PD Dr B Degen. ARC Linkage Grant: Developing DNA tracking methods to identify illegally logged timber products from Africa (2012–2014, $273,000).

Prof. Andrew Lowe, Dr Fred Gurgel and Dr Jeff Foulkes, with Profs CJ Bradshaw, BW Brook and A Cooper, Drs P Hayman, K Ophel-Keller, JE Tanner and R Hamden. Premier's Science and Research Fund: TRansect for ENvironmental monitoring and Decision making (TREND): Adaptive management of productive and native systems for climate change (2010–2013, $1.35 million).

Prof. Andrew Lowe with Drs D Lindenmayer and M Liddell. Terrestrial Ecosystem Research Network, EIF-DIISR: Long-term Australian Multi-scale Plot System (LAMPS), incorporating Ausplots, LTERs and Supersites (2011–2014, $12 million).

Prof. Andrew Lowe with Drs M Rossetto and B Summerell. ARC Linkage Grant: Species and gene turnover across environmental gradients – a landscape approach to quantify biodiversity and resilience for climate adaptation (2011–2014, $410,000).

Prof. Andrew Lowe with Drs C Walker, P Chinnick and D Turner. National eResearch Collaboration Tools and Resources Project, RT020: Harmonisation and Retrieval of Ecological Data – SHaRED. (2012–2014, $900,000).

Prof. Andrew Lowe with Drs C Walker, P Chinnick and D Turner. Australian National Data Service: From soils to satellites: Data integration across domains (2012–2014, $500,000).

Profs Andrew Lowe and Michelle Waycott with Profs A Austin, SC Donnellan, A Cooper and 10 others. ARC LIEF Grant LE130100065. Next generation enhancement of the South Australian regional facility for molecular ecology and evolution. (2012, $370,000). Partner organisations: The University of Adelaide, Flinders University, University of South Australia, South Australian Museum, Botanic Gardens of Adelaide and State Herbarium of SA, Australian Wine Research Institute.

Prof. Andrew Lowe, part of team lead by Prof. Steve Williams, James Cook University, and including 11 others. Terrestrial Biodiversity, Adaptation Research Network, National Climate Change Adaptation Research Facility (2009–2013, $1.6 million).

Prof. Andrew Lowe with 14 others. International Tropical Timber Organisation: Development and implementation of a species identification and timber tracking system in Africa with DNA fingerprints and stable isotopes (2012–1016, US$ 1.7 million).

Prof. Michelle Waycott. DEWNR AMLR: Population genetic analysis of *Acacia pinguifolia* (2013, $6,000).

Prof. Michelle Waycott. DEWNR AMLR: Population genetic analysis of *Eucalyptus paludicola* (2013, $6,500).

Prof. Michelle Waycott. DEWNR CLLMM research program: The application of genetic analysis for management of natural resources in South Australia (2013–2015, $61,500).

Prof. Michelle Waycott. DEWNR Research Partnerships: Seagrasses in South Australia – case study for integrating state-wide systems knowledge (2013–2014, $40,000).

Prof. Michelle Waycott, joint CI with Prof. C Collier. NERP GBR Hub: Vulnerability of seagrass habitats in the GBR to flood plume impacts: light, nutrients, salinity (2011–2013, $300,000).

Prof. Michelle Waycott and KJ Van Dijk. Jones Environment Fund: Seagrass evolutionary studies (2012–2015, $330,000).

Prof. Michelle Waycott, joint CI with Prof. G Kendrick. ARC Linkage Grant LP100200429: Establishing genetic guidelines for the effective ecological restoration of seagrass meadows (2010–2013, $272,000).

Prof. Michelle Waycott, Lead CI, with Dr L McKenzie. Great Barrier Reef Marine Park Authority – Reef Rescue: Reef Rescue Marine Monitoring Program – inshore seagrass monitoring (2006–2014, $2,930,000).

APPENDIX 6: RESEARCH STUDENTS

Post doctorate

Dr Kor Jent Van Dijk, The University of Adelaide, State Herbarium of South Australia, The University of Virginia, USA. The evolutionary ecology of seagrasses globally. Supervised by Prof. Michelle Waycott (2012–2014).

Dr Fatemeh Hajmoradi, Department of Biology, Bu Ali Sina University, Hamedan, Iran. Systematics of the legume genus *Onobrychis*, in particular, tribe *Hedysareae* in Iran. Supervised by Prof. Michelle Waycott (Visiting Research Student).

Ph.D.

Ms Rina Aleman, University of South Australia. Investigating the seed biology and germination requirements of *Brachyscome* species in South Australia. Supervised by Drs Manfred Jusaitis and Phil Ainsley in conjunction with Drs Fleur Tiver, Joan Gibbs and Sophie Petit.

Mr Marei Al-Nahdi, University of Adelaide, Metabarcoding approaches to detecting new weed incursions. Supervised by Prof. Michelle Waycott, AProf. Phillip Cassey and Dr Hugh Cross.

Mr Gareth Belton, The University of Adelaide. Phylogeography and the relict species concept of the macroalgal flora of the Great Australian Bight and SA Gulfs. Supervised by Dr Fred Gurgel and Prof Andrew Lowe.

Mr Martin Breed, The University of Adelaide. Restoration and landscape genetics, modelling and planning in Murray mallee and Neotropical Forests. Supervised by Prof Andrew Lowe, Drs Kym Ottewell and Mike Gardner.

Mr Austin Brown, The University of Adelaide. Speciation mechanisms in Australasian *Lachnagrostis*. Supervised by Prof Andrew Lowe and Dr Hugh Cross in conjunction with Prof David Cantrill and Dr Daniel Murphy, National Herbarium of Victoria, Royal Botanic Gardens Melbourne.

Mr Abdul Razaq Chasani, Charles Darwin University. Molecular Systematics and Phylogeography of Selected Tropical Macroalgae in the Wallacea Region. Co-supervised by Dr Fred Gurgel with Dr Karen Edyvanne.

Mr Matthew Christmas, The University of Adelaide. Adapt, migrate or die; biodiversity adaptation strategies in the face of climate change. Supervised by Prof. Andrew Lowe and Dr Ed Biffin.

Mr Craig Costion, The University of Adelaide. The great Australasian floral interchange; developing phylogenetic methods for biogeography and conservation. Supervised by Prof Andrew Lowe in conjunction with Prof Darren Crayn, Australian Tropical Herbarium, Cairns.

Mr Tim Croft, University of Adelaide, Historical vegetation modelling and detecting naturalised versus native species in South Australia. Supervised by Prof. Michelle Waycott.

Ms Rainbo Dixon, Murdoch University. Systematics of the genus *Sargassum* (Fucales, Phaeophyta) in Australia. Supervised by Dr Fred Gurgel in conjunction with Dr John Huisman, Murdoch University and Western Australian Herbarium.

Ms Ellie Dormontt, The University of Adelaide. Why do only some exotics become invasive? Combining ecological and genomic approaches to address alternative hypotheses in a recent Australian weed. Supervised by Andrew Lowe in conjunction with Drs Peter Prentis and Bertram Ostendorf.

Ms Bianca Dunker, Flinders University. Landscape genetics and fire. Supervised by Prof Andrew Lowe in conjunction with Prof Mike Bull and Dr Don Driscoll.

Mr Todd Erickson, University of Western Australia. Investigating the improved usage of *Triodia* species for restoration works. Supervised by Dr Phil Ainsley in conjunction with Prof Kingsley Dixon and Drs David Merritt and Shane Turner, Kings Park Botanic Gardens, Perth.

Mr Ashley Field, James Cook University, Systematics of Australian tassel ferns. Supervised by Prof. Michelle Waycott, Dr Peter Bostock, Queensland Herbarium, and Prof. Joe Holtum.

Ms Patricia Fuentes-Cross, University of Adelaide. Humans as agents of landscape change in Australia: vegetation turn over and domestication. Supervised by Prof Andrew Lowe in conjunction with Dr Maarten Ryder, CSIRO, and Dr Mike Gardner.

Mr James Hereward, The University of Queensland. Host association, co-evolution and gene flow in mirids. Supervised by Prof. Andrew Lowe in conjunction with Prof Gimme Walter.

Ms Margaret Heslewood, University of Adelaide. Biogeography of Cunoniaceae. Supervised by Prof. Andrew Lowe in conjunction with Dr Maurizio Rosetto, National Herbarium of New South Wales, and Prof. Darren Crayn, Australian Tropical Herbarium, Cairns.

Ms Fran MacGillivray, University of Adelaide. Tracking phenological shifts and evolutionary impacts due to climate change. Supervised by Prof Andrew Lowe and Dr John Conran.

Mr Rohan Melick, University of Adelaide. The affect of Quaternary climate change on the distribution of a rainforest gymnosperm (*Podocarpus elatus*) along the east coast of Australia using palynological and molecular evidence. Supervised by Prof Andrew Lowe in conjunction with Dr Maurizio Rosetto, National Herbarium of New South Wales, and Prof. Bob Hill.

Mrs Made Ni Gari, University of Adelaide. Systematics of *Patersonia*. Supervised by Dr John Conran and Prof Michelle Waycott, and Dr Terry Macfarlane, Western Australia Herbarium.

Mr Nick Gellie, The University of Adelaide. Developing best practice approaches for restoring forest ecosystems that are resilient to climate change. Supervised by Prof. Andrew Lowe and Dr Nikki Thurgate.

Mr James Hereward, The University of Queensland. Host association, coevolution and gene flow in mirids. Supervised by Prof. Andrew Lowe in conjunction with AProf. Gimme Walter.

Ms Sheryn Pitman, University of South Australia. Ecological literacy and sustainability: an evaluation of the ecological literacy of the South Australian adult population. Supervised by Prof. Chris Daniels.

Mr Tim Rabanus-Wallace, Australian Centre for Ancient DNA (ACAD), The University of Adelaide. Ancient DNA of squirrel middens from the Yukon. Supervised by Dr Hugh Cross.

Ms Jolene Scoble, The University of Adelaide. Identifying historic and contemporary refugia for arid avifauna threatened by climate change in South Australian mallee ecotonal vegetation. Supervised by Prof Andrew Lowe in conjunction with Drs Anita Smyth and Leo Joseph, CSIRO.

Ms Nuttanun Soisup, The University of Adelaide. Molecular systematics and phylogeography of selected Australian Phaeophyceae. Supervised by Dr Fred Gurgel and Prof. Andrew Lowe.

Mr Ben Sparrow, The University of Adelaide. Geospatial Ecology: Methods for enhancing the use of Geospatial technologies in Ecology. Supervised by Prof. Andrew Lowe and Prof. Stuart Phinn, The University of Queensland.

Mr William Taylor, University of Adelaide. Ecology, Physiology and Phylogeography of invasive species of *Caulerpa* in Australia. Supervised by Dr Fred Gurgel.

Ms Jessie Wells, The University of Queensland. Spatial ecology of plant regeneration in secondary rainforests of the wet tropics. Supervised by Profs Hugh Possingham and Andrew Lowe in conjunction with Dr David Hilbert, CSIRO.

Ms Kathryn Wiltshire, The University of Adelaide. Development of a multitrophic offshore aquaculture system for South Australia. Supervised by Dr Fred Gurgel.

Ms Jennifer Young, Australian Centre for Ancient DNA (ACAD), The University of Adelaide. Forensic Applications of Environmental Genomics. Supervised by Dr Hugh Cross.

M.Sc.

Ms Khadijah Awang, The University of Adelaide. Systematics of *Cassytha*. Supervised by Dr John Conran and Prof. Michelle Waycott, The University of Adelaide and State Herbarium of South Australia.

Ms Joey Gerlach, The University of Adelaide. Phylgoeography of southern conifers. Supervised by Prof. Andrew Lowe and Dr Ed Biffin.

Mr Duncan Jardine, The University of Adelaide. DNA tools to control illegal logging in Africa. Supervised by Prof. Andrew Lowe and Dr Hugh Cross.

Ms Tracey Spokes, The University of Adelaide. Phylogeography of selected marine macroalgae with emphasis of Australian taxa. Supervised by Dr Fred Gurgel.

B.Sc. (Hons)

Mr Taj Arndell, The University of Adelaide, Population dynamics and conservation genetics of endangered orchids. Supervised by Prof Andrew Lowe, Dr Hugh Cross and Dr Ed Biffin.

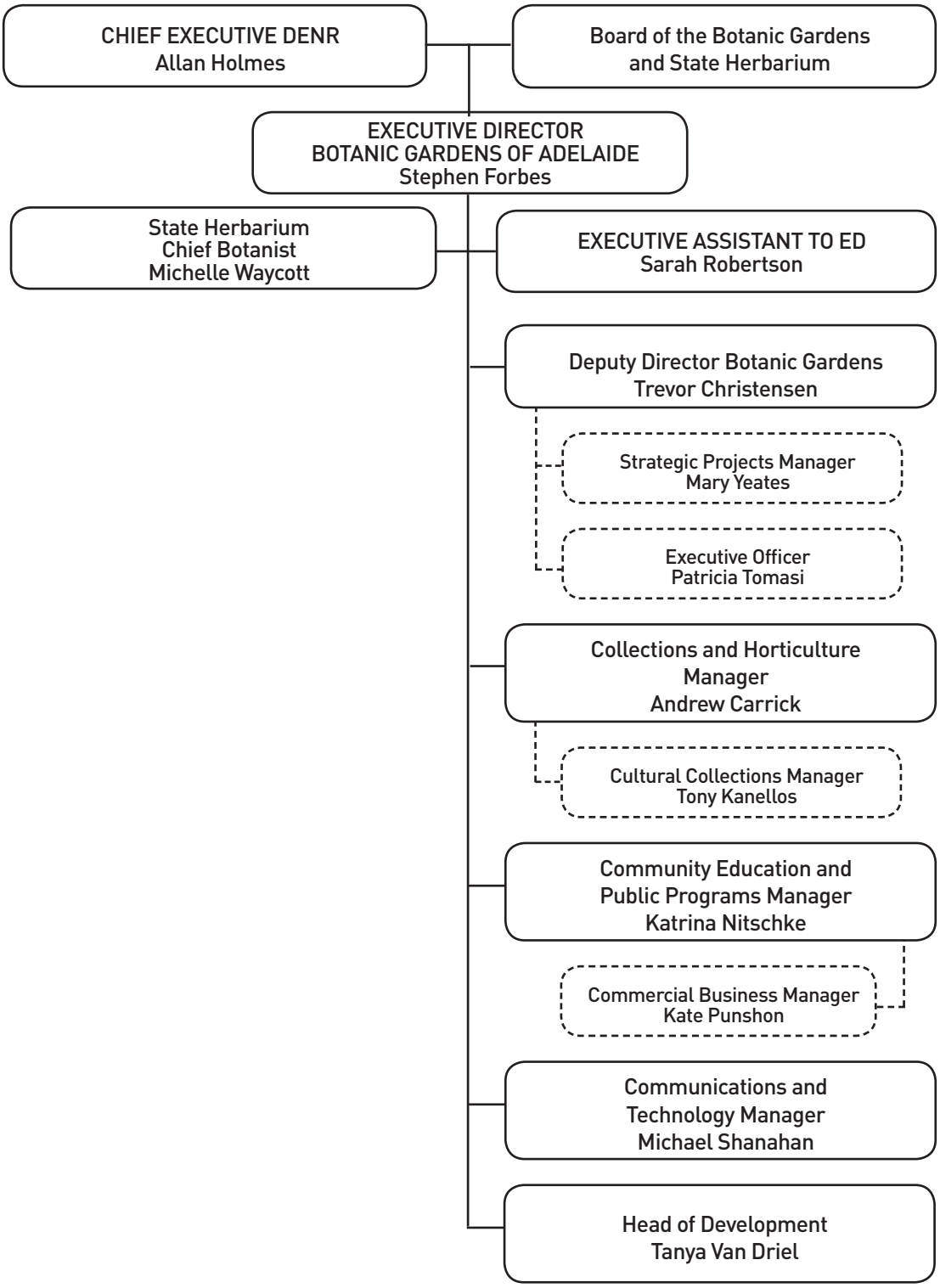
Mr Nick Kalfas, The University of Adelaide. Phylogeography and Coevolution: How fragmented populations affect the structure of species in a commensal relationship. Supervised by Dr John Conran and Prof. Michelle Waycott.

Mr Karl Shelly, The University of Adelaide. Evolutionary correlates between agar rheological properties and Gracilariaceae evolution based on *rbc*L DNA sequences. Supervised by Dr Fred Gurgel.

APPENDIX 7: ORGANISATION CHART

BOARD OF THE BOTANIC GARDENS AND STATE HERBARIUM REPORTING STRUCTURE

30 JUNE 2013



APPENDIX 8: BOTANIC GARDENS AND STATE HERBARIUM STAFF LIST

Director's Office
Stephen Forbes, Executive Director, Director Botanic Gardens and State Herbarium and Executive Director, Botanic Gardens
Anita Baker, Personal Assistant to Deputy Director
Helen Bariamis, Administrative Support Officer
Andrew Carrick, Manager, Collections & Horticulture, Adelaide, Mount Lofty and Wittunga
Trevor Christensen, Deputy Director
Fiona Crowe, Communications Coordinator
Nicole Dowling, Seed Research Assistant
Daniel Duval, Senior Seed Collection Officer
Nicky Fidler, Collections Policy Officer
Jenny Guerin, Seed Research Officer
Sophie Hastwell, Communications Coordinator *(maternity leave)*
Manfred Jusaitis, Senior Seed Scientist
Tony Kanellos, Manager, Cultural Collections
Stephen Kingdon, Technical Officer
Adam Lanzafame, BG Data Base Project Officer
Katrina Nitschke, Manager, Community Education and Public Programs
Sheryn Pitman, Project Officer, Green Infrastructure
Kate Punshon, Manager, Commercial Business
Nicole Reynolds, Events Program Coordinator
Sarah Robertson, Executive Assistant to Executive Director
John Sandham, Collections Development Officer
Michael Shanahan, Manager, Communications & Technology
Jo Staniforth, Project Officer, Community Garden Project
Michael Thorpe, Seed Bank Curation Officer
Patricia Tomasi, Executive Officer
Tarnya Van Driel, Head of Development

Lorrae West, Librarian
Serena Williams, Coordinator, Community Kitchen Garden Project
Mary Yeates, Strategic Projects Manager

Adelaide Gardens
Paul Arbon, Horticultural Curator
Jordan Behrndt, Gardener
Peter Borgelt, Gardener
Peter Bowron, Handyperson
William Brittle, Horticultural Trainee
Darryl Byfield, Gardener
Angus Coulls, Horticultural Trainee
Jessica Harbour, Horticultural Trainee
Andrew Hart, Wetland Horticultural Curator
Laura Harvey, Horticultural Trainee
Stephen Higgins, Senior Gardener
Peter Kannemann, Assistant Gardener
Stuart Maitland, Senior Gardener
Nikko Menzel, Gardener
Nick Milton, Gardener
John Ostbye, Horticultural Supervisor *(deceased)*
Adam Pannell, Traffic Officer
Flavio Perez, Horticultural Trainee
Robert Roether, Regional Asset Services Office
Daryl Ruciak, Horticultural Trainee
Carolyn Sawtell, Horticultural Curator
Cliff Sawtell, Horticultural Supervisor
Karen Smith, Horticultural Curator
Enzo Vidoni, Maintenance Supervisor
Petrina (Jade) White, Horticultural Trainee
Sharon Wilcox, Gardener
Ross Williams, Painter
Paul Winter, Gardener

Mount Lofty and Wittunga Gardens
Tony Anderson, Gardener
Valdis Balodis, Gardener
Evan Brougham, Gardener
Graeme Burdett, Horticultural Curator
David Cleland, Horticultural Trainee
Matt Coulter, Horticultural Curator, Plant Propagation
Mark Devlin, Horticultural Curator
Lisa Duffy, Gardener
John Edgar, Gardener

Scott Foubister, Horticultural Curator
Kayle Gordon, Horticultural Trainee
Robert Hatcher, Horticultural Supervisor
Stephen Havriluk, Senior Maintenance Officer
John Henson, Horticultural Curator
Hugh Matthews, Gardener
Tina Miljanovic, Horticultural Curator
Nursery and Living Collections Support
Nick Milton, Gardener
Mark Oborn, Horticultural Supervisor
Renie Ondo, Gardener
Cameron Peoples, Gardener
David Pepper, Maintenance Team Leader
David Rice, Maintenance Officer
Samuel Rose, Horticultural Trainee
Craig Sherrah, Senior Gardener
Rory Smith, Horticultural Trainee
Tim Spurling, Horticultural Trainee
Chloe Williams, Horticultural Trainee

State Herbarium
Peter Canty, Manager
Michelle Waycott, Chief Botanist
Helen Vonow, Collection Manager
Jürgen Kellermann, Senior Botanist Flora Coordinator
Fred Gurgel, Marine Botanist
Hugh Cross, Molecular Botanist
Graham Bell, Senior Botanist
Peter Lang, Senior Botanist
Chris Brodie, Weeds Botanist
Dean Cunningham, Technical Officer
Martin O'Leary, Technical Officer
Carolyn Ricci, Technical Officer, Phycology
Andrea Ramsay, Technical Officer
Lisa Waters, Technical Officer
Ainsley Calladine, Laboratory Safety Support Officer
Rachel Gein, Project Officer
Robyn Barker, Project Officer
Brian Moore, Project Officer

Head of Science
Andy Lowe

Honorary Research Associates
Bob Baldock
Bill Barker
Robyn Barker
Ainsley Calladine
Pam Catcheside
Bob Chinnock
Laurie Haegi
John Jessop
Hellmut Toelken

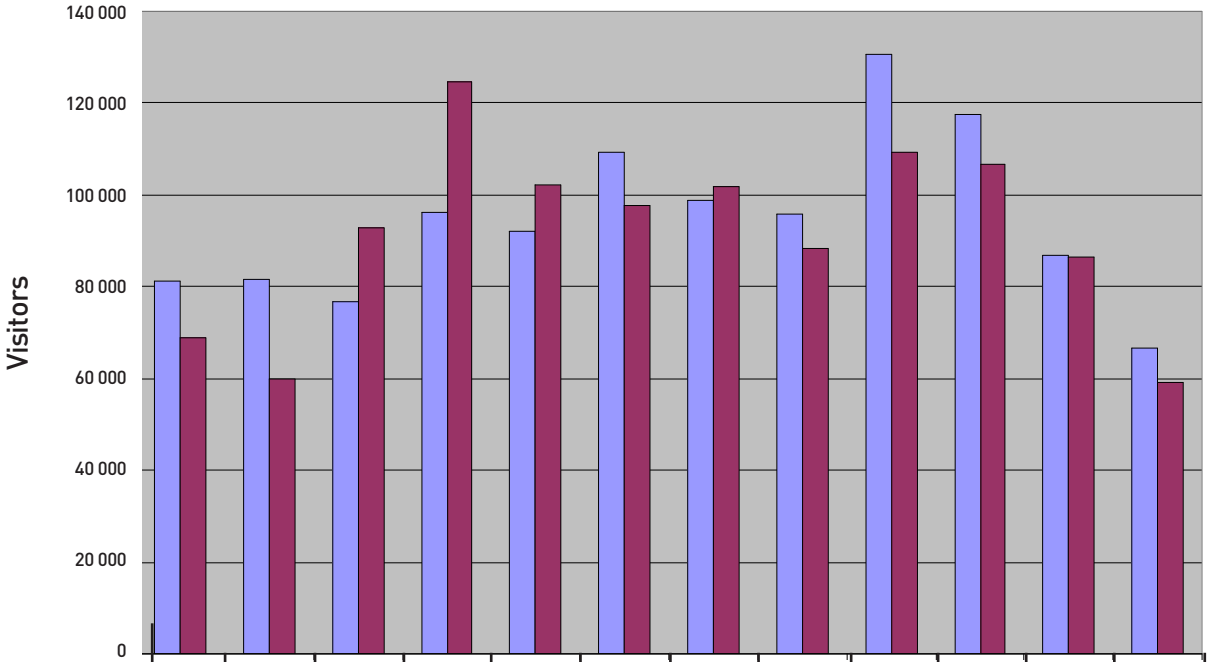
Honorary Affiliates
John Conran
Molly Whalen

APPENDIX 9: VISITOR NUMBERS

Adelaide Botanic Garden Attendance – Visitor Numbers

1. Adelaide Garden

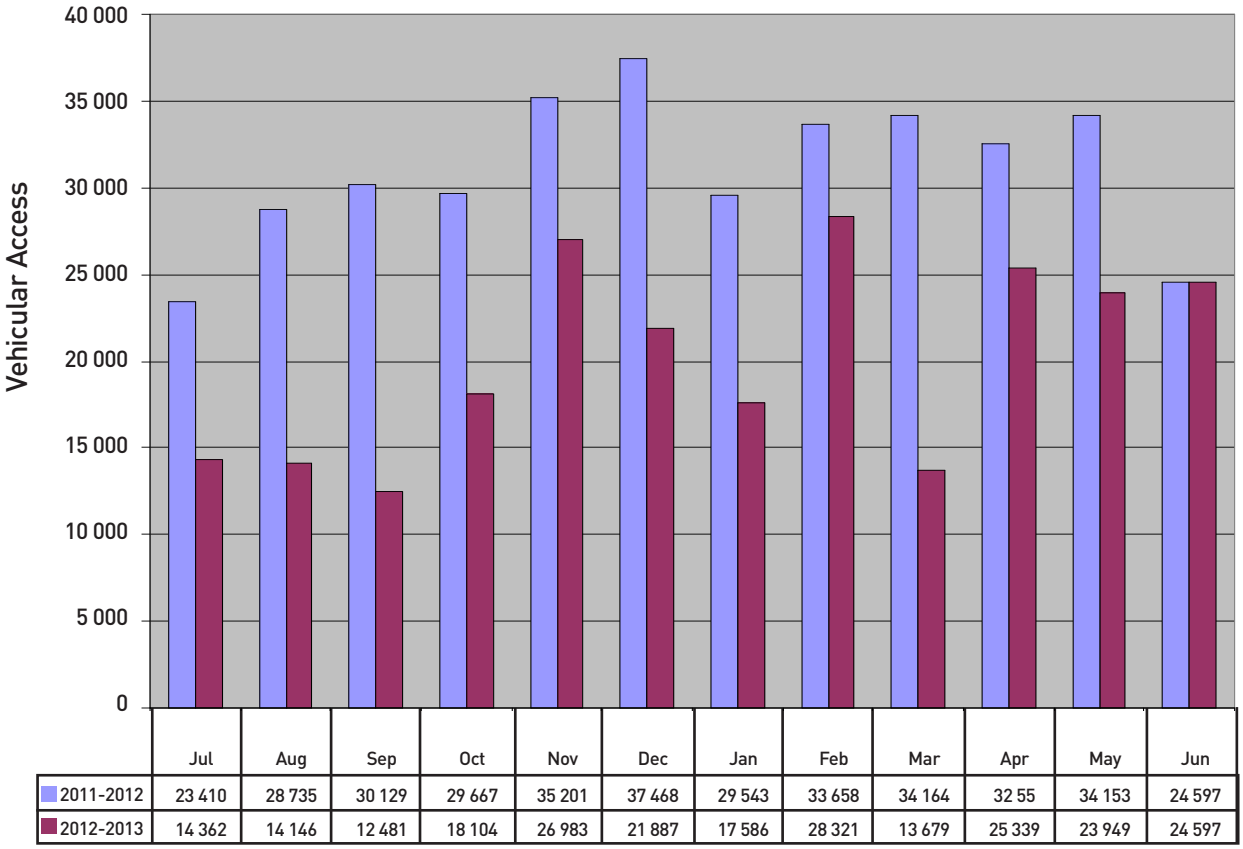
1.1 Adelaide Botanic Garden Attendance – Visitor Numbers



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2011-2012	81 072	81 593	76 924	96 112	91 929	109 256	98 777	95 941	130 667	117 542	86 753	66 529
2012-2013	69 048	60 031	93 004	124 640	102 172	97 582	101 789	88 247	109 178	106 671	86 591	59 096

Adelaide Botanic Garden	
Total Jul 2011 to matching month	1,133,095
Total Jul 2012 to June 2013	1,098,049

Adelaide Botanic Park – Vehicular Attendance

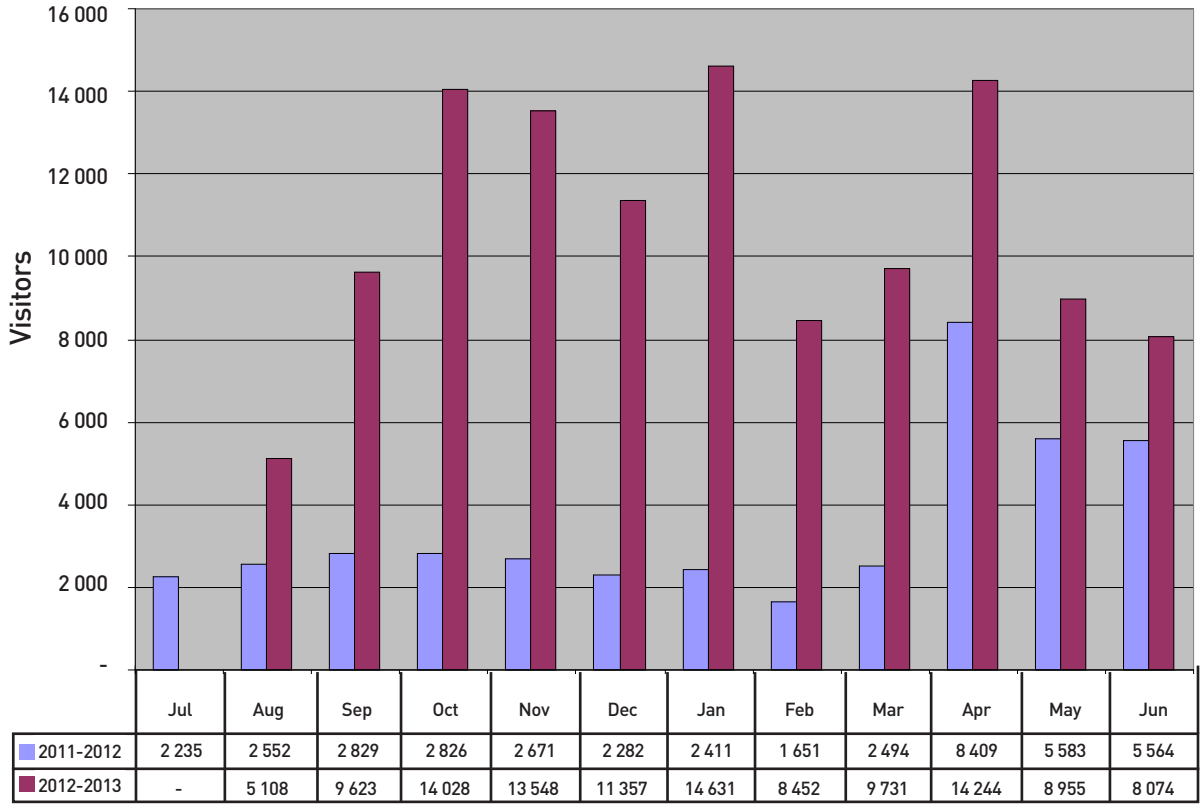


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2011-2012	23 410	28 735	30 129	29 667	35 201	37 468	29 543	33 658	34 164	32 55	34 153	24 597
2012-2013	14 362	14 146	12 481	18 104	26 983	21 887	17 586	28 321	13 679	25 339	23 949	24 597

Adelaide Botanic Park Vehicle Access	
Total Jul 2011 to matching month	373 278
Total Jul 2012 to June 2013	241 434

2012 data was used due to irregularities with the data counters during the current reporting period.

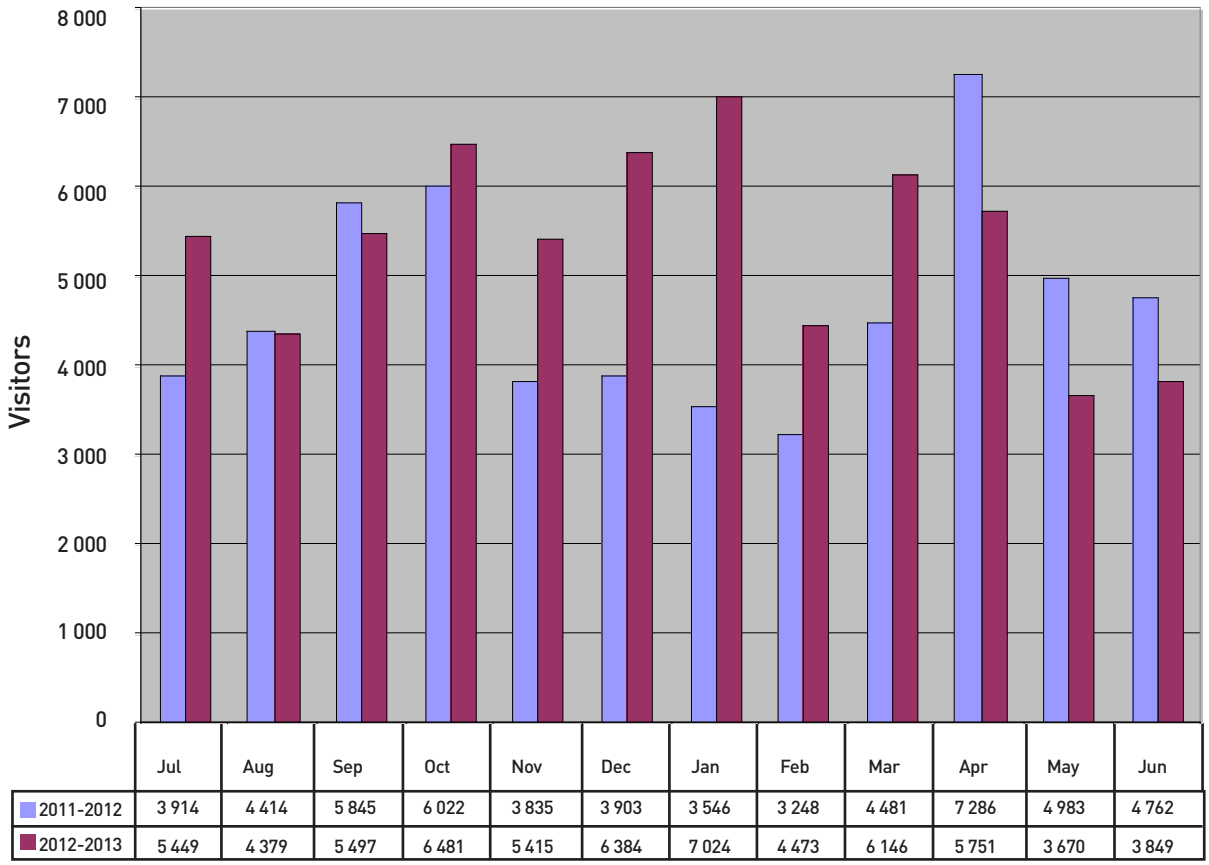
1.3 Bicentennial Conservatory



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2011-2012	2 235	2 552	2 829	2 826	2 671	2 282	2 411	1 651	2 494	8 409	5 583	5 564
2012-2013	-	5 108	9 623	14 028	13 548	11 357	14 631	8 452	9 731	14 244	8 955	8 074

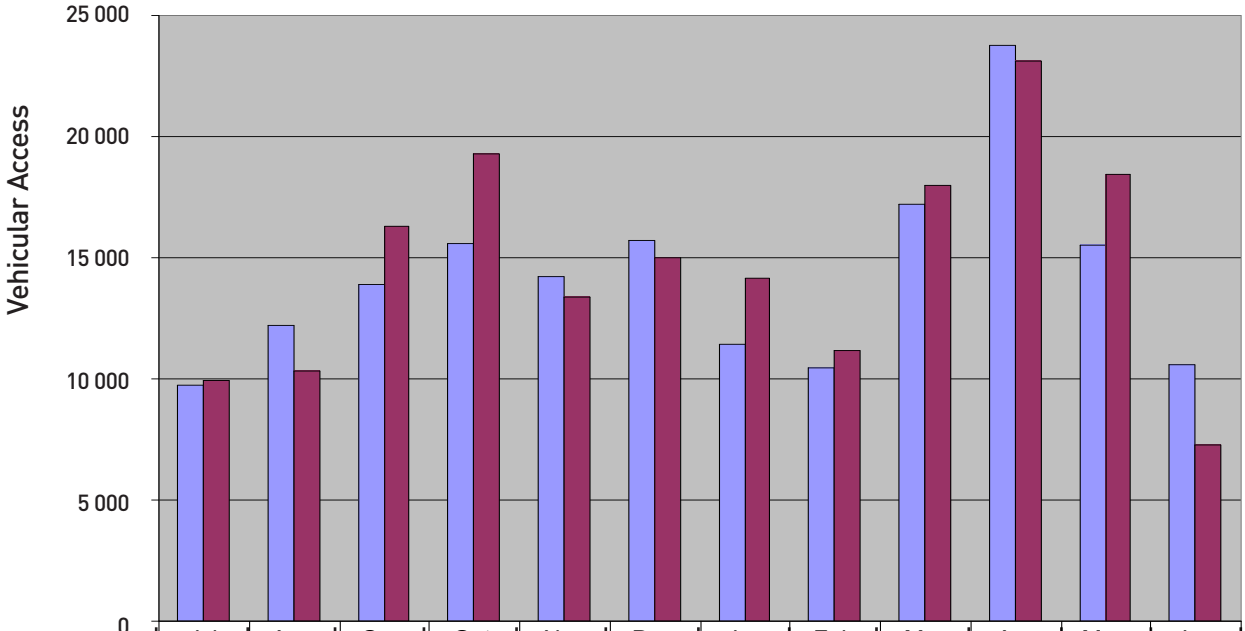
Bicentennial Conservatory	
Total July 2011 to matching month	41 507
Total July 2012 to July 2013	117 751

Museum of Economic Botany - Visitors



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2011-2012	3 914	4 414	5 845	6 022	3 835	3 903	3 546	3 248	4 481	7 286	4 983	4 762
2012-2013	5 449	4 379	5 497	6 481	5 415	6 384	7 024	4 473	6 146	5 751	3 670	3 849

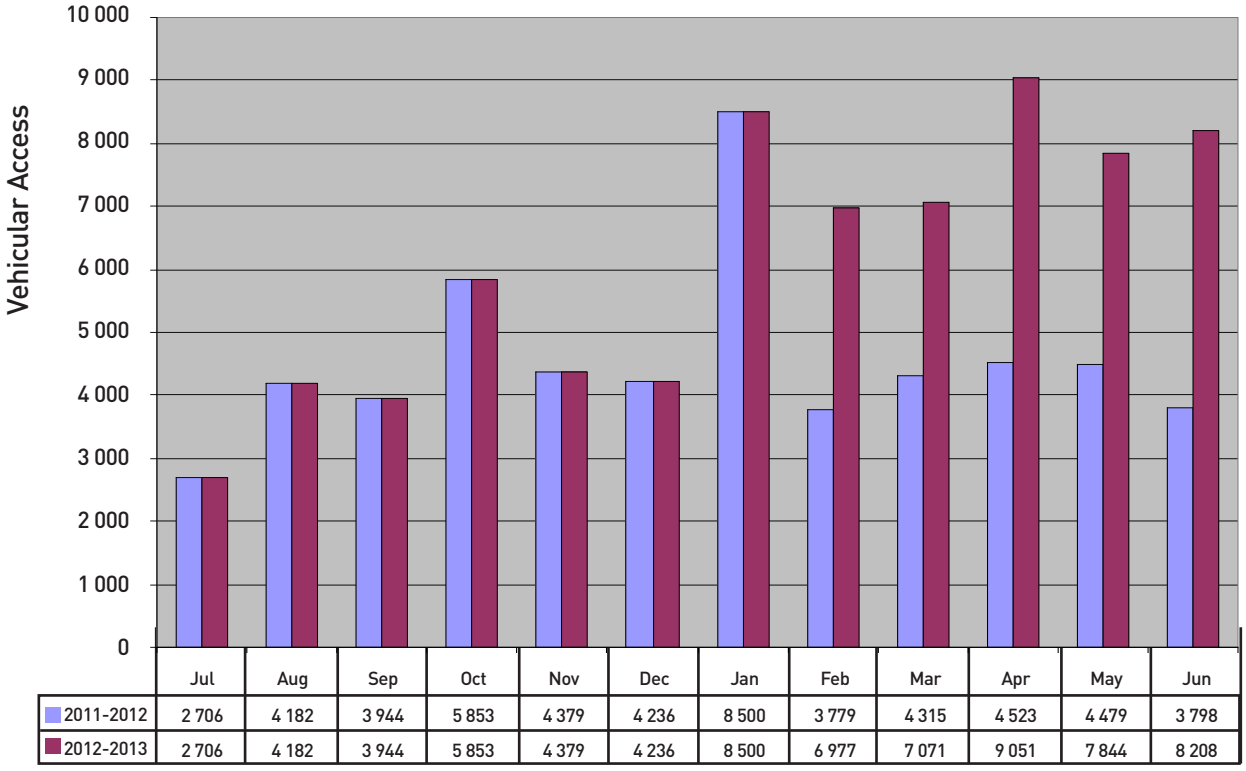
Mount Lofty Botanic Garden – Visitors



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2011-2012	9 756	12 182	13 873	15 566	14 210	15 738	11 414	10 433	17 234	23 761	15 523	10 555
2012-2013	9 914	10 335	16 300	19 295	13 400	15 027	14 128	11 158	17 968	23 130	18 417	7 293

Mount Lofty Botanic Garden	
Total July 2011 to matching month	170 245
Total July 2012 to June 2013	176 365

Wittunga Botanic Garden – Visitors



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2011-2012	2 706	4 182	3 944	5 853	4 379	4 236	8 500	3 779	4 315	4 523	4 479	3 798
2012-2013	2 706	4 182	3 944	5 853	4 379	4 236	8 500	6 977	7 071	9 051	7 844	8 208

Wittunga Botanic Garden	
Total July 2011 to matching month	54 694
Total July 2012 to June 2013	72 951

APPENDIX 10: FRIENDS OF THE BOTANIC GARDENS OF ADELAIDE INC REPORT

PATRONS

His Excellency Rear Admiral Kevin Scarce AC CSC RANR
Governor of South Australia and Mrs Scarce

OFFICE BEARERS

President:	Mr Bodo Jensen
Vice-President:	
Immediate Past President:	Mrs Helena Jenkinson
Treasurer:	Mrs Anne Bowman
Secretary:	Fiona O'Connor

CURRENT MEMBERSHIP

Current Membership 900

OBJECTIVE

To foster interest in the Botanic Gardens of Adelaide and to raise funds which may be used for any purpose which has the approval of the Board as being of benefit to the Botanic Gardens.

2012-2013 PROGRAM

July 12
Botanical Art Workshop Advanced Watercolour with Cathy Veide
Mt Lofty Botanic Garden Plant Sale
Planet Ark Tree Day Walks

-
Botanical Art Workshop –
Sea Shells with Mali Moir
visit to the Art Gallery with an emphasis on floral works with lunch at Air Restaurant

August 12
General Meeting
Mt Lofty Botanic Garden Plant Sale
'Graphite Illustration for Botanical Art' Workshop with Gilbert Dashorst
High Tea at Newmans Nursery

September 12
Newsletter mailout
Twilight Talk
Botanical Art Workshop with Gilbert Dashorst
SA Museum Natural Fibres & Seeds Tour with Lunch
Growing Group Plant Sale MLBG

October 12
Plant Sale Wittunga Botanic Garden
Mt Lofty Botanic Garden – Plant Sale
Gazette mailout
Oakbank & Environs Gardens Bus Tour

November 12
Annual General Meeting
Growing Group Plant Sale MLBG
Barossa Gardens Bus Tour & Lunch

December 12
FBGA Newsletter mailout
Card Workshop North Lodge
Christmas Lunch
Christmas Display North Lodge

January 13
FBGA Gazette mailout
Art of Bonsai Workshop in North Lodge

February 13
FBGA General Meeting in Noel Lothian Hall
Garden DVD & Morning Tea in Goodman Building

March 13
FBGA Stall at ABC Gardeners Market
Palaeo Week Walks
Twilight Talk – Victor Gostin – Greening of Gondwanaland
Plant Sale Mt Lofty Botanic Garden

April 13
Government House Open Day Walks
Plant Sale MLBG

May 13
Full Day Bus trip to Adelaide Hills
FBGA General Meeting in Lecture Theatre, Goodman Bld
Plant Sale MLBG
History Week –
Walks in the 3 Gardens by Guides
Fascination with Plants Day Walks
History Week Exhibition in North Lodge
State Library Tour with Lunch at Air restaurant.

June 13
Photographic Competition & Exhibition in North Lodge
Garden Guides participation in World Environment Day
FBGA Newsletter mailout
Adelaide Town Hall tour with lunch
Friends Games Day - Mahjong, Canasta, Bridge, Scrabble
Plant Sale Mt Lofty BG
World Environment Day

SPEAKERS FBGA GENERAL MEETINGS

August 2012	Ian Musgrave – *Medicines from Plants*
Nov 2012	Merilyn Kuchel
February 2013	Evan Broughham Trainee Horticulturalist & Winner of Gwen Thomas Scholarship
	Dr Phil Ainsley Manager Knowledge & Conservation
May 2013	Professor Don Bursill, Sth Australia's Chief Scientist

SPEAKERS FBGA TWILIGHT TALKS

September 12	James Smith from FauNature 'Living with Wildlife in Our Backyards'
March 2013	Victor Gostin Assoc Prof, Uni Adelaide – Greening of Gondwanaland

SUPPORT PROVIDED TO BOTANIC GARDENS AND STATE HERBARIUM

Parking	$1,608.22
Gwen Thomas Bursary - 1 Horticultural Staff Award	$4,000.00
Bus Tours of MLBG	$460.00
35th Birthday Donation	$35,000.00
Advertising & Distribution of Botanic Gardens of Adelaide Publications	
Monthly Self-Guided Walk Trails in 3 Gardens	
World Environment Day - volunteers	
TOTAL	**$44,068.22**

TOTAL VOLUNTEER HOURS PROVIDED BY THE FBGA

Volunteer Hours	22,770
TOTAL FBGA Volunteer Hours	**22,770**

FBGA SUB-COMMITTEES

THE BOTANICAL ART GROUP

Botanical Art Group Summary of Activities –2012/2013

Sat 16th June till Sat 14th July
Advanced Watercolour class – 2hrs x 4 weeks.
This class builds on techniques learned and practised in beginners class, and includes how to apply 'bloom' to leaves and fruits.
Time: 9.30 – 11.30am.
Tutor: Cathy Veide.
Cost: $55 [incl GST].

Sat 28th July . Field Trip - Waterhouse Exhibition.

Sat 7th & Sun 8th July. 10 – 4pm.
2 Day Workshop – '**Sea Shells**'. Learn how to illustrate accurately the complex nature of sea shells.
Tutor: Mali Moir [Melbourne based Scientific and Botanical illustrator/teacher].
Cost: To be advised.

Sun 12th & Sun 26th Aug. 10 – 4pm.
2 Day Workshop – '**Graphite illustration for Botanical Art**'. Learn Gilbert's technique for illustrating using lead pencil to create 3 dimensional forms and tone.
Tutor: Gilbert Dashorst.
Cost: $110 [incl GST]].

Sat 8th Sept. Field Trip – Day trip to Ian Roberts [Bird & plant illustrator] studio & Gallery at Blythe.

Sun 21st & Sun 28th October. 10 – 4pm.
2 Day Workshop –**'Problem Solving**'.
Tutor: Gilbert Dashorst.
Cost: $110 [incl GST]

Frid 9th – 13th Nov [inclusive]. Field Trip - Melbourne, 'Art of Botanical Illustration Exhibition'. Visit the exhibition and several other activities including gardens.
Cost and details: On application.

Sat 6 & Sunday 7 April 2013 10 -4pm
2 Day Workshop '**Strawberries in Watercolour**'
Tutor: Dianne Emery, Botanical illustrator/Principal teacher for the Friends of Royal Botanic Gardens, Melbourne.
Cost: To be advised.
This workshop celebrates our first ever workshop [Dianne was the teacher] and the inception of the ABG Friends, Botanical Art Group 10 years ago.

Saturday 27th April, Saturdays.4th, 11th & 25th May Saturdays 1st & 8th June.
6 x 2 hours **Beginners Watercolour Class**
Time: 9.30 – 11.45am [15min set up time].
Tutor: Cathy Veide
Cost: $65 [incl. GST].

Sat. 18th May. Time: To be advised.
1 Day Informal Tutorial '**Using Coloured Pencil**'
Tutors: Silja Zarins and Jenny Byass.
Cost: To be advised.

CRAFT GROUP members under convenor Lesley Freeman meet each month at North Lodge. Handcrafted goods are for sale at the Plant Sales and Events as well as used in fundraising raffles.

THE 'FRIENDS OF THE BOTANIC GARDENS OF ADELAIDE GAZETTE' is edited by Dr Ed McAlister and is published seasonally with articles from staff and Friends. The Gazette is a high quality quarterly production which is a great tool to publicise the events and work of the BGA as well as the Friends. A team of volunteers organise the distribution to Members, Staff, Media and allied associations in South Australia, interstate and New Zealand.

THE GROWING GROUP (coordinated by Richard Rowland) continued propagating at Mount Lofty Botanic Garden with material collected from the three Gardens. A wide variety of plants are propagated. An automatic watering system was installed in 2012 . The Growing Group meet at Mt Lofty on Tuesdays & Fridays.

On the 4th Sunday of March, April, May, June, July, August, September and November monthly Plant Sales of propagated plants from the 3 Gardens have been held at Mt Lofty Botanic Garden. Plants were also provided for FBGA Stalls. Sales are advertised on the radio are another way of profiling the Gardens, especially Mt Lofty.

THE GARDEN GUIDES Diarshul Sandhu is the Guide Leader. The Guides "foster interest in the Gardens".

1. Raise community awareness of the scientific, historical and cultural function of the Gardens
2. Educate the Public in the importance of plants
3. Encourage the support of the community to the Gardens

At the beginning of the 2012/2013 there were 50 members of the Garden Guides. One Guide suspended his membership for 12 months for further study and 5 trainees qualified as Guides during the year. Attendance at the meetings averaged 34.

Monthly trails were distributed in the 3 Gardens:

- **1,300** are used by the public at WBG
- **7,834** are used by the public at ABG
- **3,000** are used by the public at MLBG

The trails are also published on the Friends website.

Monthly meetings for continuing education of the Guides:

Guest Lecturers for the Garden Guides

July 2012	Dr Hans Griesser on antibiotic substances extracted from Eremophila species that is intended for use on implanted devices and prostheses.
August 12	Queen Adelaide telling us her life story enchantingly entertained us. Queen Adelaide was Mrs Catherine Ellice-Flint --- (President of the Friends of The Australian Ballet, South Australia branch) and Mrs Rose Mussared was her companion.
September 12	Kate Hislop South Africa; Brenton Pike Roof-top Gardens at ZooSA.
October 12	Mr. Andrew Winkler: "How First Creek turned me into an Environmentalist"
November 12	Sam Phillips, Water Projects Engineer, Dept Water, Environment and Natural Resources
January 2013	Elizabeth Branford – Counsellor Seaton High School: Voice training coaching session.
February 13	Mr. Graham Carpenter, South Australian Museum – *Birds of the Botanic of Gardens of Adelaide*
March 13	Ms Helen Vonow and Dr Jurgen Kellermann from Herbarium.
April 13	Pam Catcheside Hon Research Associate at the Herbarium on *New species of Fungi in South Australia*

May 13 John Murphy - presentation on *Alpine Plants* .

June 2013 Guide AGM

Free guided walks were provided in **ABG** except Christmas Days and Good Friday.
Number of walks offered **336**
27 days cancelled due to Heat Policy

Total visitors **1897**
South Australia **459**, Interstate **532**, Overseas **906**

Free guided walks were held in **MLBG** every Thursday
Number of walks offered **46** for **79** visitors
77 South Aust, **2** Interstate, **4** overseas
9 Booked walks for visitors as well as **30** bus tours in MLBG

Free guided walks are held at **Wittunga BG** every Tuesday August to end November.

Special walks for Tomato Tales, April Fossil Month, Fascination with Plants,
Planet Ark Tree Day: ABG **5**, MLBG **2**, WBG **2**.
Community Day Palaeontology and History Month for visitors.

Guides took **18** walks for visitors at Government House Open Day in March.

Altogether **4,070** visitors were taken for guided walks in the 3 Botanic Gardens of Adelaide.
The Guides also took part in World Environment Day.

The Guides took special 30th Anniversary Walks of the first guided walk in the Gardens.

Guides also furthered their education through 5th Wednesday excursions:

TOTAL WALKS & VISITORS

1 May 2012 – 30 April 2013

	ABG	MLBG	WBG	TOTAL
Total Walks Regular & Booked & Special	390	53	20	463
Total Visitors	**3131**	**707**	**232**	**4070**

Multiple guides provided for some of these walks
Total Visitors for MLBG includes Bus Tour visitors
The Bus tours have been very successful

Guides have continued to research and develop the self-guided walk trails on a monthly basis in all three Botanic Gardens.

Special walks were researched and designed. Walks have been promoted in local press and ABC Radio.

In the **Plant Biodiversity Centre and the State Herbarium Library** volunteer Friends regularly assisted staff with a diversity of tasks. These included the preparation of specimens for mounting, plant identification, checking incoming exchange or large loans, and upgrading collections, while in the library assistance included data input and sorting of miscellaneous material.

SANTOS MUSEUM OF ECONOMIC BOTANY

Several of the Friends volunteer and organise the Roster in the Santos Museum of Economic Botany to enable it to remain open 7 days a week. Regular meetings with member research presentations are held to enable the volunteer meeters and greeters to enhance visitors experience by educating them about the exhibitions.

Visitor Information Centre a number of Friends volunteer in the Schomburgk Pavilion Visitor Centre provide valuable information for visitors to the Botanic Gardens.

TOURS

The Tours Group, led by Trish Byrne has initiated many interesting activities for the Friends this year including illustrated talks, walks in the Garden, local day trips and excursions. Events included DVD Monty Don's Gardens of Italy with Morning Tea, Tour of Recycling Plant with Lunch, All Day Tour of City Gardens, 5 Day Bus Trip to Barossa, Art Gallery Guided Tour with Drinks, Festival Theatre Tour with Lunch. There was also a Melbourne Garden Tour including Ballarat, Autumn Bus Tour with Lunch, ABG Statues & Gates Tour with Lunch. The group's activities endeavour to engage people with the Garden's activities.

A 14 day tour to South Africa hosted by Kirstenbosch Garden Guides was organised for local and other Australian Garden Guides. An optional 5-day Safari to Kruger National Park was also scheduled.

NORTH LODGE SUB-COMMITTEE

North Lodge houses the Friends' book collection and Guides' resource material.

A wide range of exhibitions and workshops are held for Friends and visitors to the Adelaide Botanic Garden.

These have included –

Displays – SALA Bittondi Print-Makers, Photography Competition
Workshops – Mahjong, Photography, Card-making.
Bookclub – The Friends host 2 Bookclubs in North Lodge, with books supplied by the City Library.
The Friends aim to have North Lodge open for members and visitors everyday.

OUTREACH PROGRAM

A small group is available to provide speakers to aged-care facilities, service groups, senior citizen clubs etc, to promote the Botanic Gardens of Adelaide and the Friends, as well as providing an educational role.

Talks have been given to U3A Noarlunga and Flinders, Probus Clubs, APS Gawler, Orchid Society.

HANDS ON HORT

The Hands on Hort is a volunteer basic gardening program at Wittunga Botanic Garden. The six volunteers who meet every week spend most of their time in the Wittunga House Grounds but also do hand-weeding, planting and dead-heading in the public Wittunga Botanic Garden.

COMMUNITY EVENTS

This group coordinates the Friends' attendance at garden shows such as the Stirling Autumn Fair and Hills Garden & Environmental Expo, ABC Gardener's Markets & Herb Day at which we promote the Gardens and our organisation through photos, brochures and information.

OTHER VOLUNTEER ROLES BY THE FRIENDS

The Friends were represented on the Wittunga Master Plan reference group by the President. Friends attended the Mount Lofty Botanic Garden Blitz in Spring and Autumn. Friends assisted with the BGA Annual Visitor Survey. The President and representatives of the Friends have met regularly with the Minister of Environment & Sustainability and his staff to update him on Friends' and Gardens activities. The President and Vice President are also members of the ABG Foundation.

PUBLICATIONS AND PRESENTATIONS

- Self-guiding walks pamphlets are prepared for free distribution to visitors in the three Gardens
- Guided Walks Brochures revised
- Radio and television presentations promoting Gardens and Friends activities
- Website redesigned with continually updated information.
- A colour brochure of birds found in the ABG (republished.
- Gazette is printed, A4, in full-colour 4 times per year.
- Newsletter is printed 4 times per year.
- Calendar and Christmas cards showcasing photos of the Botanic Gardens.
- The Recipe Book was printed using Friends' recipes and line-drawings by the Botanical Art Group. The Recipe book, Calendar and Cards are sold to publicise the Friends and the Gardens.

AFFILIATIONS

Australian Guide Secretariat, Garden Clubs of Australia, Association Management – Not for Profit Sector. Association of the Friends of the Botanic Gardens of Australia.

The FBGA President is a full member of the ABG Foundation.

Our gratitude is expressed to the Board of the Botanic Gardens of Adelaide for providing the use of North Lodge, nursery space at Mount Lofty, and an office, and lecture room facilities in the Goodman Building and Noel Lothian Hall. Without these our volunteer activities in supporting the Botanic Gardens would be considerably reduced. The commitment made by the Director and/or Head of Gardens in attending Friends committee meetings is particularly valuable. It is acknowledged that the money raised and the many volunteer hours given by the Friends of the Botanic Gardens of Adelaide could not have been achieved without the generous support of the Board and the Botanic Gardens' staff.

Board of the Botanic Gardens and State Herbarium
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Government of South Australia
Department of Environment and Natural Resources

Botanic Gardens of ADELAIDE
ADELAIDE MOUNT LOFTY WITTUNGA