

Board of the Botanic Gardens
and State Herbarium

Annual Report 2011-2012



connecting plants • people • culture

Annual Report of the Board of the Botanic Gardens and State Herbarium
2011–2012



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

Contents

| | |
|---|----|
| Letter of Transmittal | 1 |
| Presiding Member's Foreword | 2 |
| Director's Report | 3 |
| Three Great Gardens and State Herbarium | 4 |
| Corporate Governance | 5 |
| Role, Vision and Mission | 5 |
| Principles | 5 |
| Legislative Responsibility | 5 |
| Functions and Objectives | 6 |
| Board Membership and Organisation | 6 |
| Contribution to South Australia's Strategic Plan 2011 | 7 |
| The Board's Strategic Plan 2009-2012 | 8 |
| Sustainability | 9 |
| Health & Wellbeing | 11 |
| Collections | 12 |
| Biodiversity | 20 |
| Connecting with People | 24 |
| Human Resource Management | 29 |
| Our Partners | 30 |
| Reconciliation Statement | 32 |
| Mandatory Reporting | 33 |
| Financial Report | 34 |
| Financial Performance | |
| Auditor's Opinion | |
| Certification of Financial Reporting | |
| Annual Financial Statements | |
| Appendices | 58 |
| Appendix 1: Publications | 59 |
| Appendix 2: Research Collaborations | 62 |
| Appendix 3: Scientific Grants | 64 |
| Appendix 4: Research Students | 66 |
| Appendix 5: Organisational Chart | 68 |
| Appendix 6: Staff List | 69 |
| Appendix 7: Visitor Numbers | 70 |
| Appendix 8: Friends of Botanic Gardens of Adelaide Inc Report | 76 |

Letter of Transmittal

Board of the
Botanic Gardens and
State Herbarium



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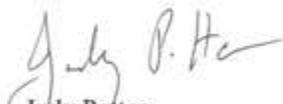
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30 September 2012

Hon Paul Caica MP
Minister for Sustainability, Environment and Conservation
Parliament House
North Terrace
ADELAIDE SA 5000

Dear Minister

The Board of the Botanic Gardens and State Herbarium is pleased to present its Annual Report for the year ended 30 June 2012 as required by Section 23 of the *Botanic Gardens and State Herbarium Act 1978*.



Judy Potter

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

Presiding Member's Foreword

Three years ago the Board of the Botanic Gardens and State Herbarium set itself some ambitious challenges that went to the heart of the true purpose of botanic gardens in the 21st century.

The challenges were set out in *Gardens for Life: Botanic Gardens and State Herbarium of South Australia Strategic Plan 2009-12*.

The Board was nothing if not prescient in the five themes adopted for the plan—sustainability, health and wellbeing, collections management, biodiversity and connecting with people. The challenges presented by the first two themes in particular are as real today as they were four years ago.

In achieving the plan's objectives—and, indeed, exceeding them in a number of cases—the Board continued its custodial role to conserve, manage and develop its rich living, herbarium and cultural collections. As important, it shared the knowledge contained within them in new and exciting ways.

On the ground, the Gardens adopted measures that resulted in it exceeding the targets of securing 50% of its water from non-mains sources and encouraging 10 government and industry bodies to adopt sustainable landscape principles. These successes will lead to more sustainable public spaces and gardens, creating more vibrant and inspiring places in which the community lives and works.

Additionally, work critical to preserving the State's plant biodiversity is on track to achieving its 2020 targets, with 59% of the State's threatened plants now conserved in the Conservation Centre's seed bank (2020 target: 90%) and 11% used in landscape restoration or revegetation projects (2020 target: 25%).

The opening of the Western Entrance provides a new visitor entrance and broadens accessibility to the Adelaide Botanic Garden to encompass the city's cultural and educational precincts. The adjacent Garden of Health demonstrates how plants have been used for medicinal and healing purposes and serves as a community resource supporting health and wellbeing. Further, it complements the living narrative of how plants and botanic gardens have changed the world.

The role of the Botanic Gardens and State Herbarium in opening up its wealth of knowledge and advocating for the protection of the environment is more important than ever before, given the context of climate change and increasing concerns about food, water and energy security.

The State Herbarium completed and published major taxonomic revisions, work that contributes significantly to the knowledge of plants in South Australia, including threatened species. The development of the fifth edition of the *Flora of South Australia* was ongoing, and the first chapters

were made available online. This initiative, combined with ongoing work to Australia's Virtual Herbarium and more than 80 scientific and other publications, informs scientists and researchers locally, nationally and globally.

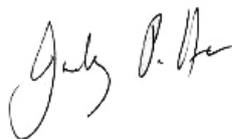
These are some of the highlight achievements over the past three years. Never before have so many people been able to benefit from the Gardens and Herbarium collections' knowledge in so many different ways. To name a few: major events, educational performances, digital databases, QR codes, outstanding cultural exhibitions, scientific publications and collaborations, the Kitchen Garden and Sustainable Landscapes community outreach programs, educational workshops and school holiday programs and the development of The Australian Centre of Horticultural Excellence. Our work fosters creativity, inspiration and collaboration.

The Board is set to embark on a new Strategic Plan 2012-17, which will chart the course for the activities of the Botanic Gardens and State Herbarium over the next five years by building on the achievements of the past three years.

On behalf of the Board, I wish to extend my thanks to the Hon Paul Caica, Minister for Sustainability, Environment and Conservation and Mr Allan Holmes, Chief Executive of the Department of Environment and Natural Resources for their ongoing support.

I attribute our considerable achievements over the past year to the dedication, hard work and support of many individuals and groups. On behalf of the Board I would especially like to thank the staff of the Botanic Gardens and State Herbarium; the Adelaide Botanic Gardens Foundation and Mr David Knox as Chair; the Friends of the Botanic Gardens of Adelaide and Mrs Helena Jenkinson as President; volunteers and honorary associates; our donors and sponsors for their continuing generosity; and industry, government and community bodies with which the Gardens has a strong association.

In closing, on behalf of the Board I extend warm congratulations to two members of the Gardens' community acknowledged in the 2012 Queen's Birthday Honours List: Board member Ms Anne Howe AM for outstanding public service; and Mrs Barbara Wheaton OAM for outstanding community service, particularly through the Friends of the Botanic Gardens of Adelaide.



Judy Potter
Presiding Member
Board of the Botanic Gardens and State Herbarium

Director's Report

Great cities have great gardens. The Botanic Gardens of Adelaide have always been places of inspiration and beauty where people come to enjoy the natural world. The Gardens also has a mission for connecting people with the world of plants, through education, conservation and research. The role of the Gardens in demonstrating and sharing models for sustainability is more important than ever before, and the role of the Gardens' botanical collections in addressing the challenges of climate change and plant extinction is critical to our future.

The Botanic Gardens and State Herbarium have achieved some impressive milestones over the past three years of the Board's 2009–12 strategic plan, especially in engaging the community in how important people and plants are to each other.

As the highlight achievements set out in this annual report demonstrate, over the past year the Gardens' endeavours in this arena have exceeded targets and won awards. A 20% increase in volunteers, and increasingly productive partnerships with government, industry and the community are especially gratifying.

In recognition of the water self-sufficiency it will bring to the Gardens from 2013, the Water Industry Alliance awarded the First Creek Wetland and Aquifer Storage and Recovery project a High Commendation in its 2012 Smart Water Awards. The award also acknowledges the opportunities opened up by the project to educate visitors about the role of plants in the water cycle and innovative ways of addressing water security.

Being the only South Australian finalist in the Banksia Environment Awards was a coup in itself for the Sustainable Landscapes Project, which also achieved a community nomination in the Environment category of the Civic Trust Awards. Managed by the Botanic Gardens, the project celebrated seven years of collaborative partnerships and successes in changing attitudes to green space in planning, local government, the development industry, schools and the broader community. The project has been reviewed and the Green Infrastructure Prospectus has been prepared to give future direction. The Green Infrastructure Working Paper won an award of Excellence for Research and Communications at the South Australian chapter of the Australian Institute of Landscape Architects Awards in 2011.

The Royal Australian Institute of Architects' (South Australia) Conservation Award for the architects of the Santos Museum of Economic Botany is also cause for celebration—of the Museum's standing as an established exhibition space that attracts more than 56,000 visitors a year.

The State Herbarium marked an astonishing milestone with the one-millionth item—a delicate fungus never before recorded in Australia—added to its internationally

significant collection of plants, algae and fungi. A further 16,000 specimens were added in 2011–12. The extensive data and knowledge base of the Herbarium, taxonomic revisions and continual development of the *Flora of South Australia* and Australian Virtual Herbarium continued to inform climate change research and biodiversity science.

A Memorandum of Understanding with TAFE SA Regional was signed to develop The Australian Centre of Horticultural Excellence. The Memorandum represents the start of a truly groundbreaking initiative that will advance horticultural education and training locally, nationally and internationally, and build capacity across the landscape industries.

The Board is required to preserve and develop the collections and, importantly, share its knowledge with the scientific and broader community. Following on from the Gardens' accreditation by the American Association of Museums in 2010, the Gardens has joined Museums Australia as a member. The Gardens continues to be actively involved with the Council of Heads of Australian Botanic Gardens, the Council of Heads of Australian Herbaria and Botanic Gardens Australia New Zealand.

As we embark on a new strategic plan for 2012–17, I extend thanks to all those who continue to contribute to the Gardens.

In particular, my thanks goes to the Hon. Paul Caica, Minister for Sustainability, Environment and Conservation; Mr Allan Holmes, Chief Executive of the Department of Environment 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, President of the Friends of the Botanic Gardens of Adelaide.

Our achievements over the past year have only been possible through the outstanding support of the many people who make up our Gardens' community—staff, volunteers, horticultural and special-interest community groups, Friends of the Botanic Gardens of Adelaide, the Adelaide Botanic Gardens Foundation and, of course, our partners and sponsors who contribute so much in so many ways.



Stephen Forbes

Director, Botanic Gardens of Adelaide and State Herbarium

Three Great Gardens and State Herbarium

Adelaide Botanic Garden and Botanic Park

For more than 150 years, the Adelaide Botanic Garden has played a significant role in the cultural life of the State. With approximately 1.8 million visitors a year, the 26-hectare garden is the most popular of the State's cultural institutions, regarded by the community as a place for relaxation, entertainment and recreation; education; and research into collections of botany, ecology and horticulture. The Garden is easily accessible from the city centre and forms part of the North Terrace cultural boulevard and education precinct. Established in 1870 as an arboretum, the 34-hectare Botanic Park is a significant heritage landscape, dotted with century-old Moreton Bay Figs. It is a popular site for picnics, wedding-party photographs and major events, such as WOMADelaide, Parklife and Moonlight Cinema.

Mount Lofty Botanic Garden

Mount Lofty Botanic Garden is devoted to the cultivation of plants from cool temperate parts of the world. The Board purchased the estate of Thomas S Backhouse in 1952 when it was thick with re-growth Stringy Bark forest and Radiata Pine plantations. A significant development program established landscaping, visitor amenities and cool-climate collections before the Garden opened to the public in 1977. The Garden now occupies 97 hectares and its collections of magnolias, rhododendrons, ferns and the ATCO Heritage Rose Garden are a major Adelaide Hills tourist attraction.

Wittunga Botanic Garden

An intimate and beautiful garden on 14 hectares, 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.

State Herbarium of South Australia

Located in the refurbished Tram Barn A in the Adelaide Botanic Garden, the State Herbarium of South Australia is the fourth largest herbarium in Australia and contains more than one million plant specimens. It is the centre for the preservation and generation of knowledge of native and naturalised plants, algae, lichens and fungi in the state. As well as the plant collections, which are housed in a series of vaults in a controlled environment, the Tram Barn houses the Science Resource Centre of the Department of Environment and Natural Resources (DENR) 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, management and education, and the determination of species distributions to aid in detection of rare or threatened species.



Wittunga Botanic Garden

Corporate Governance

Role

Since 1855, the Board of the Botanic Gardens and State Herbarium (the Board) has provided recreational, educational, horticultural and scientific benefits to the South Australian community.

Vision

The Board will lead, inspire and engage the community in creating a botanically sustainable future in a changing environment.

Mission

On behalf of the people of South Australia, the Board's mission is to advance plant appreciation, knowledge and conservation through its natural and cultural collections and programs.



Herbarium specimen

Principles

The six principles set out below embody the broad concepts that lay the foundations 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.

Legislative Responsibility

The Board is established pursuant to Section 6 of the *Botanic Gardens and State Herbarium Act 1978* (the Act). The Board is subject to the general direction and control of the Minister for Sustainability, Environment and Conservation.

The Board is responsible for administration of the Act and has responsibility for the State Herbarium and three garden sites: Adelaide Botanic Garden and Botanic Park, Mount Lofty Botanic Garden and Wittunga Botanic Garden.

Functions and Objectives

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

- a) to 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) to 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) to establish and maintain a herbarium and, subject to this Act, to retain original specimens included in the herbarium;
- d) to 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) to accumulate and classify data in regard to any such matters;
- f) to manage all lands and premises vested in, or placed under the control of, the Board
- g) to 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) to carry out or promote research into matters of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history;
- i) to disseminate information of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history;
- j) to undertake the commercial exploitation of knowledge acquired by the Board in the course of conducting research
- k) to sell or propagate and sell (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: and
 - (ii) are not widely commercially available in the State
- l) to provide consultant services; and
- m) to perform any other functions of scientific, educational or historical significance that may be assigned to the Board by regulation.

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

Board Membership and Organisation

The Board is responsible for the management of its gardens and the State Herbarium in accordance with the Act. Its overarching aim is to balance recreation, education and tourism needs with the need to conserve and enhance the living, cultural and herbarium collections and conduct vital conservation research.

The Board consists of eight members appointed by the Governor, pursuant to Section 7 of the Act. During the 2011–12 reporting period, the Board met on seven occasions (Table 1).

The Board has two standing committees, which met twice during the year:

- The Finance and Risk Management Committee,
Chair Gary Storkey
- The Strategic Positioning Committee,
Chair David Knox.

Helena Jenkinson was the only Board member who declared a potential conflict of interest in her capacity as President of the Friends of the Botanic Gardens of Adelaide.

Table 1: Board members and meetings 2011–12

| Board Member | Meetings held in term of office | Number of meetings attended |
|------------------|---------------------------------|-----------------------------|
| Judy Potter | 7 | 6 |
| Karen Cross | 7 | 6 |
| Anne Howe AM | 7 | 6 |
| David Knox | 7 | 6 |
| Anne Levy AO | 7 | 7 |
| Christine Elstob | 7 | 6 |
| Gary Storkey | 7 | 6 |
| Helena Jenkinson | 7 | 6 |

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 priorities for Creating a Vibrant City, Safe Communities and Healthy Neighbourhoods, and Every Chance for Every Child

As part of an ongoing commitment to enhancing visitor experiences, the Board conducts an annual visitor perception and satisfaction survey (SASP Target 32). The results of the survey are analysed and the Board takes appropriate action to ensure the Gardens continues to provide outstanding visitor experiences.

As South Australia's most visited cultural and scientific institution, the Gardens contributes significant economic and social benefits to the community. 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 benefit to local businesses (SASP Target 4). The multiplier effect from this activity, together with the significant investment in capital programs and services, contributes to economic growth while, at the same time, helps to make the Gardens more accessible and enjoyable.

The Gardens provides a beautiful, tranquil and friendly refuge that accommodates visitor needs for recreation in a highly urbanised environment. Thus, directly contributing to community wellbeing. Visitor Surveys show that people visit the Gardens to view plants, walk and relax. This encouragement of outdoor recreation combined with the provision of facilities and activities, helps improve the health of South Australians (SASP Target 78) and increases psychological wellbeing (SASP Target 86). The Garden of Health, as part of the new Frome Road Western Entrance, opens up opportunities for visitors to learn more about the importance of plants to health and wellbeing. Further, the Kitchen Garden Program promotes the mental and physical wellbeing associated with connecting with nature and growing, harvesting, preparing and sharing fresh produce.

The Board's role in plant conservation contributes to the survival of plant species in nature—locally, nationally and globally—with a particular emphasis on South Australian rare and threatened plants. The Board pursues an integrated approach to plant conservation, by combining long-term ex situ (conservation of plant species away from their natural areas of occurrence) with in situ programs.

The State Herbarium and Seed Conservation Centre directly contribute to Lose No Species (SASP Target 69), the five biodiversity corridors and Marine Biodiversity (SASP Target 71) through increasing knowledge, scientific research and ex situ seed collections of South Australia's native species.

The Sustainable Landscapes Project demonstrates and promotes appropriate park and garden design, plant species selections and sustainable horticultural practices for South Australian environments, including effective, efficient and appropriate water use (SASP Target 75). The Green Infrastructure Project is a new initiative to ensure South Australians live in healthy, resilient and beautiful landscapes that sustain and connect people with plants and places. Two gardens in the Adelaide Botanic Garden—the SA Water Mediterranean Garden and the Australian Native Garden—specifically showcase innovative and artistic ways to incorporate sustainable horticultural principles in home gardens.

Australian flora knowledge is expanding exponentially through taxonomic research at the State Herbarium and a broad range of collaborative national and global research conservation projects. Joint initiatives and funding received through the Australian Research Council, with South Australian and interstate universities and private enterprise, contribute directly to public expenditure on research (SASP Target 96) and Australian Government research and development resources (SASP Target 97).

The representation of women on the Board in 2011–12 was 75%, up from 50% in the last reporting period (SASP Target 30). The number of volunteers in the Gardens and State Herbarium increased by 20%, and there was an increased focus on the development of volunteer training and recognition programs (SASP Target 24).

Additionally, the Botanic Gardens of Adelaide and State Herbarium contribute to three goals that guide the work of DENR, as set out in its Corporate Plan 2010–14. These are that: the environment is conserved and natural resources are used sustainably, the environment is valued and enjoyed, and the environment is integral to development decisions.

The Board's Strategic Plan 2009–2012

Over the past three years the Botanic Gardens of Adelaide has been guided by its strategic plan—*Gardens for Life: Botanic Gardens and State Herbarium of South Australia Strategic Plan 2009–12*.

In formulating the plan, the Board considered all of the interconnecting elements that make up a botanic garden and the complex network of interdependence that underlies it.

Essentially, the Board aspired to:

- enable and influence the community and government to minimise the ecological footprint of public and private urban landscapes

- advance community understanding of the relationship between plants, people, gardens and human health and wellbeing
- increase accessibility to, and demonstrate the excellence of the Gardens and Herbarium collections
- advance the scientific understanding and conservation of the State's biodiversity
- engage with different communities to encourage greater social inclusion and community development.

This report sets out achievements to date measured against the highlight objectives of the Board's Strategic Plan 2009–12.



Ficus macrophylla

Sustainability

We aspire to ...

enable and influence community and government to minimise the ecological footprint of public and private urban landscapes

Highlight objectives

- By 2012, 50% of all water used in the Botanic Gardens of Adelaide is derived from non-mains sources
- By 2012, sustainable landscapes principles are guiding land management practices within 10 South Australian government and industry entities
- By 2020, the Botanic Gardens of Adelaide will be at least carbon neutral

Highlight achievements

- Water from non-mains sources exceeds 50% target
- Sustainable horticultural principles guiding 10 government and industry bodies
- First Creek Wetland on track for 2013 completion
- Green Infrastructure Project founded on collaborative partnerships
- First Creek Wetland and Aquifer Storage Recovery project awarded High Commendation in Water Industry Alliance Smart Water Awards

Sustainability: in focus

Sustainability is the first of the themes set out in the Strategic Plan 2009–12, reflecting its importance as the issue of the time. By incorporating sustainable practices into every area of its operations, the Board looks to reduce the Gardens' environmental footprint and demonstrate good corporate citizenship. Of equal importance, 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.

Water Security Shapes Up

The First Creek Wetland and Aquifer Storage and Recovery (ASR) Project is on track for completion in 2013.

Jointly funded by the South Australian and Australian Governments as part of the National Urban Water and Desalination Plan, the urban-constructed wetland will divert stormwater from First Creek as it enters Adelaide Botanic Garden. The wetland will combine natural and mechanical filtering before storing water, and subsequently recover it from an aquifer 40 metres below ground.



SA Water Mediterranean Garden

When the project is fully functioning, Adelaide Garden will secure water self-sufficiency in perpetuity, saving around 100 megalitres of potable water a year from the River Murray. Elements of the project include pollutant capture, water cleansing, aquifer recharge, plant growth, landscape and interpretive elements.

Pollutant capture is expected to improve the quality of water in First Creek before it reaches the River Torrens and Torrens Lake. In a recent test from a single but considerable rain event, the gross pollutant trap in First Creek (funded by the Adelaide and Mount Lofty Ranges Natural Resources Management Board) captured 4.5 tonnes of debris, which would otherwise have flowed into the waterways.

The project will provide a unique opportunity to connect visitors, including schools, with the critical role plants play not only in the water cycle, but also the ecosystem, and illustrate both the challenges of water scarcity and the nature of innovative approaches to addressing it.

The project was awarded a High Commendation in the Resource Management category of the 2012 Water Industry Alliance Smart Water Awards.

Sustainability Practices

A substantial investment in upgrading irrigation systems has been a major contributor to the Gardens exceeding its objective of deriving 50% of water from non-main sources by 2012.

The upgrades, to ensure accurate and efficient water delivery, have occurred throughout the Adelaide Garden and Botanic Park, and at the Mount Lofty and Wittunga Gardens.

Additionally, all three Gardens continue to model best-practice irrigation to the community. In the Adelaide Botanic Garden, 30% of lawn areas were again allowed to 'brown-off', to green up again with autumn rains.

Mulching continued throughout, following trials that determined the most appropriate types of mulch for specific locations. Various herbicides, including organic or low-level fungicides, were used to control weeds and pests and biological control has been implemented where appropriate.

Award and Partner Recognition

Throughout the year the Gardens continued to work with the community, industry groups and government agencies to promote sustainability and positive change in the way urban environments are inhabited. Productive relationships developed with community, industry and government bodies and a number of high-profile awards demonstrate the value placed on and recognition of this important work.

The Sustainable Landscapes Project, managed by the Botanic Gardens, continued to deliver practical information

and education resources to the scientific community, local government, schools and the broader community through presentations and displays, the distribution of informative materials and exposure in quality magazines.

In 2011–12, the project was the only South Australian finalist among 58 entries nationally in the Banksia Environment Awards—in the Education and Peoples Choice categories. Additionally, the project achieved a community nomination in the Environment category of the Australian Civic Trust Awards.

The 2011 Native Garden Awards, under the initiative, attracted a record number of entries—private homeowners, local councils, schools and a community centre were among the winners. The broad judging criteria ranged from plant selection, habitat value and water and energy use through to overall appeal.

In September 2011, the Hon. Paul Caica MP officiated at the launch of the Landscapes Alive Plant Selector, an online resource to help with sustainable plant selection.

During the year, the Sustainable Landscapes Project took on a consultation role as part of the Green Infrastructure Project, which works primarily at a strategy and policy level to achieve a network of green spaces that deliver environmental values to people and places.

Project partners are the Urban Renewal Authority, Adelaide & Mount Lofty Ranges Natural Resources Management Board and Department of Planning, Transport and Infrastructure. The project had representation on the Integrated Design Commission's Design Review Panel, providing a review service and design advice for urban and peri-urban developments. A close relationship with the Urban Planning Unit ensured that green infrastructure was included in strategic and development plans and policy documents, such as the Capital City Ministerial Development Plan Amendment and the Adelaide Hills Council Development Plan Review 2012. The Green Infrastructure Working Paper won an award of Excellence for Research and Communication at the South Australian Chapter of the Australian Institute of Landscape Architects Awards in 2011.

As well, the project developed relationships with SA Health, the Nursery and Garden Industry of South Australia, Australian Institute of Landscape Architects, University of South Australia, The University of Adelaide, TAFE SA, the Horticultural Media Association, Australian Plant Society, State Flora, the Heart Foundation, TREENET, and other State Government agencies and local government.

Health & Wellbeing

We aspire to ...

advance community understanding of the relationship between plants, people, gardens and human health and wellbeing.

Highlight objectives

- By 2011, the Western Entrance and Garden of Health is completed in the Adelaide Botanic Garden
- By 2010, progress a kitchen garden initiative to support community health and education programs

Highlight achievements

- Western Entrance and Garden of Health launched
- Kitchen Garden Program supported more than 40 gardens
- First South Australian Community Garden Month established

Health & Wellbeing: in focus

The Board has an important role to play through conservation, displays and education programs in reinforcing the relationship between climate change and plants and biodiversity, and the role of plants in health and wellbeing. In so doing, it looks to encourage practices that lead to sustainability and improved health and wellbeing.

Western Entrance & Garden of Health Officially Opened

The Minister for Health and Ageing, and Minister for The Arts the Hon. John Hill MP, opened the Western Entrance and Garden of Health on 22 July 2011.

The Western Entrance is the first new pedestrian access point into Adelaide Garden to have been launched since the Friends Gate on Plane Tree Drive, which was unveiled in 1987. The Ginkgo Gate, a monumental bronze work of art created by respected South Australian artists Angela and Hossein Valamanesh, is the pedestrian portal, connecting with the cultural and educational precincts through the Adelaide City Council's Frome Park—Nellie Raminyemmerin.

Commissioned by the Board, the Ginkgo Gate was the recipient of an Arts SA Public Art and Design: Major Commission grant.

The Garden of Health features 2 500 plants and 300 species, half of which are in Adelaide Botanic Garden for the first time. Some species have been used by humans since the Stone Age, while others are used in modern medicine,

illustrating the enduring reliance on plants for healing.

The garden is designed as a restful retreat which, through interpretative signage, becomes an important community resource through revealing the power of plants in healing the body, mind and spirit.

The initiative is a collaborative partnership between the Board and major sponsor WorkCoverSA, helping to realise a shared vision of promoting community health and wellbeing and workplace safety.

Kitchen Garden Program

The Kitchen Garden Project also focuses on the improved health and wellbeing of South Australians, through supporting the development of kitchen gardens in homes, schools and communities. In addition, the project aims to encourage improved food literacy and an increased consumption of a wide variety of fruit and vegetables as part of a healthy diet.

A steering committee, which has been guiding the program since March 2010, includes representatives from SA Health, Department for Education and Child Development (DECD), Natural Resource Management (NRM) Education, Stephanie Alexander Kitchen Garden Foundation (SA) and the Nursery and Garden Industry Association of South Australia.

The construction of a kitchen garden in the Adelaide Botanic Garden, with facilities for demonstrations, cooking, workshops and hands-on student engagement, has been adopted as a major fundraising project for the Adelaide Botanic Gardens Foundation. The concept design for the garden has been completed.

Program activities in 2011–12 included:

- Organised the inaugural South Australian Kitchen Garden Month, which included workshops, networking, seed swaps, displays and children's activities in the Adelaide Botanic Garden
- Assisted with the creation of several new community gardens, including North Adelaide, Adelaide Hills, Mitcham, Enfield Baptist Church and Chapel Street Reserve, Magill.
- Provided information, resources and support for more than 40 different gardens
- Developed a monthly newsletter incorporating information and resources to inform and inspire community gardeners throughout the state

- Developed a working relationship with NRM to encourage continued support for school kitchen gardens
- Delivered a comprehensive workshop program for community, home and school gardeners, ranging from planting a winter vegetable garden, through to composting, tree pruning and aquaponics
- Developed a Kitchen Garden Program and evaluation measures.

Collections

We aspire to ...

as custodians of the State's primary botanical collections, demonstrate excellence in their quality, management and accessibility

Highlight objectives

- By 2012, three garden areas developed with plant species indigenous to the local area
- By 2012, plant 150 trees in Adelaide Botanic Garden to preserve the mature tree canopy
- By 2012, herbarium, living and cultural collections information and knowledge is available on-line
- By 2012, the Santos Museum of Economic Botany is established as a major exhibition space, with at least five major exhibitions held

Highlight achievements

- Three new indigenous gardens established and three indigenous species gardens expanded
- 547 trees planted across the three Gardens to preserve the mature tree canopy
- Herbarium publications website launched
- Established the Santos Museum of Economic Botany as a major exhibition space, attracting more than 56 000 visitors annually
- Two major cultural exhibition hosted in 2011–12—Djalkiri and Banks' Florilegium
- One-millionth specimen lodged in the State Herbarium
- The Australian Centre of Horticultural Excellence established
- Santos Museum of Economic Botany recipient of Heritage Architecture award

Collections: in focus

The Board holds a unique collection of living, preserved and cultural items that represent the botanical heritage of South Australia.

The State Herbarium Collection is the fourth largest institutional herbarium in Australia, with more than one million pressed plant specimens. It houses a collection of international importance, including specimens from the first exploration of South Australia.

The institution is dedicated to the preservation of the collection and the application of botanical knowledge to inform the South Australian community. It maintains the South Australian plant census, which is a point of reference for what plants occur in the State in native and naturalised states, and which is used extensively by government and the broader community. It also has a strong research program and plays an advisory role for South Australian plant systematics.

Since inception, the State Herbarium has enjoyed a high State, national and international profile. Staff contribute to botanical surveys, have been instrumental in the foundation of conservation parks across the State, and have established strong links with The University of Adelaide through joint staff appointments, and through postgraduate teaching in plant systematics.

The living collections make the three Botanic Gardens places of aesthetic appeal, inspiration and enjoyment. They provide places where people of all ages learn about the diversity of plant life, climate change and sustainability practices.

The Board is also the custodian of a research library, archive, and Santos Museum of Economic Botany and an art collection, consisting of artworks on paper, an economic botany collection, paintings, statues, sculptures, memorials, artefacts, medals and photographs. As well as having visual appeal, these cultural collections connect people to the history and core business of the Gardens and promote their educational, historical, cultural, scientific and recreational values.

In maintaining, managing and displaying the collections, the Board is fulfilling important functions of scientific research, conservation and education.

Herbarium Collection

Herbarium Collection Care & Development

The State Herbarium holds an internationally significant and diverse collection of plants, algae and fungi.

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.

The ongoing work of the Herbarium, with support from and collaboration with the South Australian community, maintains this important historical and reference collection of the State's plants algae and fungi.

During the year, an additional 16 000 specimens were added to the State Herbarium collection from staff, external sources, and major biological surveys.

A combination of restricted access, a sophisticated fire prevention system and a pest-monitoring program secure its longevity.

Data collection

An extensive data capture program in operation for more than 15 years has made data and information associated with the Herbarium Collection more accessible. The data and information, including plant distribution, historic and current scientific names, descriptions and illustrations, are now online—on the State Herbarium's electronic *Flora of South Australia* <http://www.flora.sa.gov.au> and via Australia's Virtual Herbarium <http://www.flora.sa.gov.au/avh/>.



Sharing plant knowledge

| State Herbarium | 2011/12 | 2010/11 | 2009/10 | Average |
|---|--------------|--------------|--------------|---------|
| Specimens identified [est.] (determined/confirmed)* | 16 000 | 4 400 | 6 000 | 8 800 |
| Specimen nomenclature updated* [est.] | 500 | 3 500 | 2 000 | 2 000 |
| Specimens mounted | 10 253 | 8 800 | 8 700 | 9 251 |
| Database additions | 11 188 | 12 805 | 8 600 | 10 864 |
| Total in specimen database ADHERB | 722 375 | 711 204 | 698 200 | |
| AD specimens sent on loan | 1 677 | 771 | 2 403 | 1 617 |
| AD specimens returned from loan | 5 784 | 3 342 | 6 296 | 5 141 |
| Incoming loan specimens received | 615 | 1069 | 754 | 813 |
| Incoming loan specimens returned | 267 | 754 | 8 | 343 |
| Exchange specimens sent | 146 | 1 358 | 496 | 667 |
| Exchange specimens received | 973 | 1 310 | 1 870 | 1 384 |
| Specimens added to the collections | 7328 | 11 502 | 9 323 | 9 384 |
| Estimated total specimens in State Herbarium collection | 1 020 728 | 1 012 427 | 1 000 000 | |
| Estimated replacement value of the State Herbarium collection | \$64 458 291 | \$62 351 000 | \$57 000 000 | |
| Calculated value per specimen | \$63.15 | \$61.59 | \$57.00 | |

*This reflects the actual 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.

The 11 188 records added to the Herbarium specimen database during the year brought the total computerised specimen records to 722 375. Data capture was predominantly internally funded, although external funding for weeds collection was obtained through collaborations with Biosecurity SA and Trees for Life.

Progress was made towards upgrading the State Herbarium's database to protect capacity to deliver data and information for state and national needs. With the appointment of a new Chief Botanist, key activities included the development of a conceptual framework for new delivery needs. Building on the strategic review of the Herbarium's information system, work to overhaul the database began, a process that may take several years given the magnitude and scope of the transition required.

Community Contribution to Knowledge Base

Knowledge about Australian fungi is quite patchy and information on the distribution of most species is poor. The Adelaide Fungal Studies Group has contributed many new records or extensions that are important additions to both the State Herbarium Collection and a national project called Fungimap. Coordinated through the State Herbarium, the group is made up of members of the community who, during the fungal season, visit selected sites to identify specimens using the State Herbarium Collection.

Another group of community members committed to assisting with enhancing environmental knowledge of the State have been working with the State Herbarium and Trees for Life to collect weeds from their local communities. The Weeds Botanist from the State Herbarium has conducted training workshops with Trees for Life volunteers at Willunga, Clare and Callington. The volunteers are assisting in documenting the presence and spread of weeds in their regions.

Census Compilation

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 are added from external sources.

The Herbarium continued to make a significant contribution to the Australian Plant Census Working Group and other related groups, specifically addressing hepatics and fungi. 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 had completed the majority of Australian plant families.

Approximately 122 name changes were recorded for South Australia's vascular plants during the year; of these, 45 were new native taxa and 36 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*. A further 135 synonyms (old names) have been added to the census database, assisting with making links between old and new taxonomies.

Historic Milestone

The State Herbarium marked the collection of its one-millionth species, by uncovering a species never before recorded in Australia.

The specimen—a delicate fungus found growing on damp, very rotten wood on Kangaroo Island—was identified as *Entoloma parasiticum* (also known as *Claudopus parasiticus*). The wood on which the specimen was found appeared to have fallen after the 2007 bushfire on Kangaroo Island.

The specimen adds to other noteworthy collections held by the Herbarium, including most specimens collected from the state since about 1870. This includes one of Australia's most important collections of fungi, lichen and marine algae. The lichen collection includes specimens collected by Sir Douglas Mawson from the Antarctic 100 years ago.

New Chief Botanist Appointed

In 2011, Professor Michelle Waycott BSc PhD took up her appointment as, HBS Womersley Professor of Plant Systematics and as the Chief Botanist in the School of Earth and Environmental Sciences, The University of Adelaide and the State Herbarium.

Professor Waycott's research expertise centres on biodiversity discovery, species and populations, climate change and seascapes, landscapes and communities. She is a member of the Australian Centre for Evolutionary Biology and Biodiversity, within the Environment Institute at The University of Adelaide.

Living Collection

Planning and management

The Board's Living Collections Policy supports the following 12 focus collections:

1. Dryland palms and cycads
2. Rhododendrons
3. Flowering trees
4. Southern Hemisphere conifers
5. South Australian indigenous flora
6. Madagascar flora
7. Roses
8. *Victoria amazonica* and associated flora
9. Charismatic plants within orchids, carnivorous plants, bromeliads, ferns, cacti and succulents and water plants
10. Mediterranean garden flora
11. Botanic gardens and ideas—how botanic gardens changed the world, including systems gardening, Museum of Economic Botany
12. Perennial and herbaceous displays.

The detailed criteria being formulated for each of the collections continued throughout the year. The criteria forms the basis of collection management plans being developed in 2012–13, to help horticultural staff to better coordinate planting and maintenance programs.

Collection Development

The Gardens' Site Master Plans and Collections Policy guide the overall development of the Adelaide and Mount Lofty Gardens. Collections objectives and the required taxa were regularly developed throughout the year to support future education and interpretation programs.

Development of the Indigenous Species Gardens, which were established in 2010–11, continued in 2011–12. They are:

- Adelaide Botanic Garden and Botanic Park—Australian Native Garden, Eremophila Garden, First Creek Garden and Tainmundilla
- Wittunga Botanic Garden—local South Australian species, Grey-Box Woodland, Fleurieu Peninsula and Kangaroo Island plantings.



Eucalyptus viminalis

Wittunga Master Plan

Work began on developing the first master plan for the Wittunga Botanic Garden to guide its development.

A reference group representing the local community, nursery industry, special interest groups and government was established.

The Wittunga plan master plan will:

- provide a framework and staged directions for future improvements
- set out achievable outcomes
- identify future projects and priorities
- provide a basis for infrastructure planning and funding.

The Master Plan will be completed in late 2012.

Other Collections management initiatives during 2011–12 included:

- An in-ground survey of rhododendrons as part of an international study to secure ex situ collection details of critically endangered and endangered rhododendrons. The results underline the importance of the living collections holdings—out of 253 rhododendron species, five were found to be critically endangered, three endangered and 24 vulnerable. Another 13 were found to be of long-term concern over their existence in the wild.
- A review into the 23-year old Bicentennial Conservatory resulted in a long-term strategy for the collection with a view to enhancing the visitors' experience. Some preliminary work started as a first step to rejuvenating the plant collection.
- With entry into the Conservatory free, visitor numbers are expected to increase and, as a consequence, understanding of the importance of rainforest conservation.
- The Native Cycad Garden adjacent to the Santos Museum of Economic Botany, which includes indigenous cycads, now well established.
- Significant terrestrial plants were sourced as part of the First Creek Wetlands project, and additions were made to the original list using in-house, knowledge, expertise and propagation skills. As part

of the project, the vine varieties obtained and planted closer to the National Wine Centre as replacement to the original vineyard were well established after a year's growth.

- Another 45 plant species new to the Adelaide Botanic Garden were sourced from botanical institutions in Germany and Japan for the Garden of Health. These add to more than 2 500 plants representing 300 different species (around 150 of them new to the Adelaide Botanic Garden) sourced in 2010–11.
- The unique numbering system implemented in 2010–11 as part of the Tree Study, to enable the identification of a single tree by assigning an individual accession qualifier, has been applied to 33% of the trees in the Adelaide Botanic Garden and 35% of the trees in Botanic Park.
- The Australian Native Garden won an Australian Institute of Landscape Architects Award in the Design category for landscape architects Taylor Cullity Lethlean. The Garden matured over the year and continued to supply living evidence of the horticultural and landscape qualities of native plants.

BG-BASE

BG-BASE, a database application to manage information on living collections, continued to record and develop plant records, including cultural knowledge. The training of staff and volunteer guides has been instrumental in the take up of the system and improved understanding of not only the Plant Records Data, but also the skills required to maintain existing records, research plant nomenclature and undertake accessioning of new acquisitions.

Grey headed flying foxes

The colony of grey-headed flying foxes (*Pteropus poliocephalus*), which arrived in 2010–11, has now risen to 500. While flying foxes are a threatened species nationally and a protected species in South Australia, if allowed to establish in large numbers they can cause extensive damage and, in some cases, the death of trees in which they roost. While the colony was successfully relocated to Botanic Park, in a collaborative effort involving DENR and other government agencies, an advisory panel has been set up to remove the colony completely from Botanic Gardens land. This is to ensure the historic, scientific and cultural value of the Gardens landscape is preserved.

External collaborations

Collaborations with external societies and horticultural industry bodies continue to add value to collection curation. In 2011–12, staff maintained and developed relationships with various plant societies within South Australia and nationally, including:

- Australian Carnivorous Plant Society
- Australian 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
- Liliium Society of South Australia
- Nursery and Garden 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.

The Botanic Gardens of Adelaide and Dahlia Society worked collaboratively to supply a significant number of Australian Dahlia cultivars (grown under controlled conditions) to be sent to Paris for a civic garden display.

The Australian Centre of Horticultural Excellence

The Botanic Gardens and TAFE SA signed a Memorandum of Understanding to establish The Australian Centre of Horticultural Excellence (TACHE).

TACHE will offer accredited courses and specialist master classes by qualified Botanic Gardens staff and specialists to advance horticultural education locally, nationally and internationally.

TACHE is a collaboration between the Botanic Gardens of Adelaide and TAFE SA Regional. The master class program will begin in late 2012, with Certificate 111 and 1V courses scheduled for 2013. As part of this initiative, 16 Botanic Gardens' horticultural staff undertaking the National Diploma in Horticulture in 2011–12, are expected to qualify in 2013.



Goodman Building and Science Resource Centre, Adelaide Botanic Garden

Cultural Collections

Exhibition program

The Santos Museum of Economic Botany hosted two free exhibitions during the year, which along with the museum's permanent displays attracted in excess of 56 000 visitors.

- *Djalkiri—We are standing on their names—Blue Mud Bay* (12 August–6 November 2011) comprised a series of prints created through a cross-cultural exchange between artists, scientists and printmakers from across Australia.

The exhibition reflected the artists' spiritual relationship with the landscape of Blue Mud Bay and illustrated the importance of the cultural connection between people and place. Its cross-cultural ties and botanical imagery highlighted the Gardens' relationships with Indigenous and artistic communities.

Presented by ArtBack NT: Arts Development and Touring and Nomad Art productions, the exhibition featured artists Djambawa Marawili, Fiona Hall, Liyawaday Wirrpanda, John Wolseley, Marrirra Marawili, Jörg Schmeisser, Marrnyula Mununggurr, Judy Watson and Mulkun Wirrpanda.

It is currently on tour to 10 regional galleries.

- **Banks' Florilegium** (30 March–15 August 2012) exhibited rare illustrations of flora from Captain Cook's first voyage to Australia—a set of prints of Sir Joseph Banks' specimens and Sydney Parkinson's illustrations.

The Botanic Gardens recently acquired 337 prints from an anonymous donor—25 were on display. This record of flora has not been seen in South Australia for more than two decades.

Museum of Economic Botany Heritage wins Heritage Architecture Award

The Santos Museum of Economic Botany won the Heritage Architecture Award in the 2012 Royal Australian Institute of Architects (SA Chapter) Awards, for architects Grieve Gillett.

The awards process acknowledged excellence, and demonstrated that the building was more than how it looked; it was also about how the Gardens' used it to engage with its communities. The Museum won the award ahead of a record number of entries.

International Alliance

The Gardens is developing a collaborative alliance with the Museum für Völkerkunde (Museum of Ethnology) in Vienna, which has led to an exhibition being scheduled for 2013 or 2014. This partnership began in 2006 following the Gardens' expedition to Guyana and the hosting of the *Victoria amazonica* exhibition, which provided the opportunity to pursue professional connections in Guyana, in particular, with the curator of South American collections.

Collections Preservation

The Board appreciates the importance of its role in preserving the cultural heritage of the Botanic Gardens of Adelaide, and initiatives throughout the Gardens ensure the inheritance from the past is maintained in the present for the benefit of future generations.

The collection management software installed last year ensures the appropriate documentation and management of the collection to professional standards. The long-term aim is to apply this process to the entire suite of cultural collections, including archival photographs, art works and the Museum Collection.



Adelaide Botanic Garden North Terrace entrance

Conservation assessment of the Gardens' statues was undertaken last year, and direction and professional advice were provided to guide in the maintenance of these important and valuable heritage decorative objects.

Research on a unique collection of artificial fruit from 1865 through to the 1880s acquired by the Gardens, was photographed in preparation for a catalogue, a process that will document these rare items and make them more accessible to the community locally and internationally. The collection is one of only 10 in existence by the model maker and, with 350 items, arguably the most complete. It was originally used as a means of identifying fruit and to explore varieties that could potentially be grown in South Australia.

Library

The Board's library rare book collection continued to be enriched by donations, adding to both its scientific and cultural strengths.

The library holds material collected over the past 150 years, including original copies of botanical publications with hand-coloured plates. The oldest volume in its collection of 24 000 individual items is a Latin translation of a Greek herbal text from 1516.

The collection continued to be documented through out the year. This year's exhibition of Banks' Florilegium was added to the library's rare book collection last year.

Table 3: Library statistics

| | 2011-12 | 2009-10 | 2008-09 | 2007-08 |
|---|---------|---------|---------|---------|
| Staff use: including enquiries, loans and inter library loan requests | 1 141 | 1 192 | 1 054 | 1 108 |
| Public use | 65 | 56 | 102 | 33 |
| Internet: page views | 204 364 | 184 736 | 184 901 | 213 612 |



Djalkiri Exhibition Santos Museum of Economic Botany

Biodiversity

We aspire to . . .

advance the scientific understanding and conservation of our biodiversity

Highlight objectives

- By 2012, taxonomic, genetic and ecological research informs biodiversity management, and the No Species Loss and Naturelinks programs
- By 2012, the *Flora of South Australia* is published in print and online
- By 2020, establish ex situ conservation collections for 90% of South Australian threatened species
- By 2020, 25% of threatened plant species in Seed Bank Collections used in restoration or revegetation programs

Highlight Achievements

- Major taxonomic revisions completed and published
- Completed chapters of *Flora of South Australia* published online
- The complete collection of the *Journal of the Adelaide Botanic Gardens* published online
- 59% of South Australian native plant species conserved in the Seed Conservation Centre
- 11% of threatened plant species in Seed Bank used in restoration and revegetation programs
- 1.9 million seeds collected from 57 native plant species
- Blackberry data made available by Herbarium for multi-state biocontrol project
- Research collaborations developed

Biodiversity: in focus

In holding documented collections of living plants for the purposes of scientific research, conservation, public display and education, the Board is helping to fulfill a fundamental role of botanic gardens globally. That is, by exploring the world of plants and their relationships, protect and sustain biodiversity for human wellbeing and the planet. The Herbarium Collection also documents the history and presence of botanical biodiversity across the State.

In its endeavours, the Board continues to advance scientific understanding and conservation of the biodiversity that supports all life.

Taxonomic revisions and flora documentation

Taxonomic revisions that examine collections from Australian and overseas herbaria are responsible for the most significant changes to knowledge of Australian 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.

During 2011–12:

- Major taxonomic revisions were completed and published in *Hibbertia* (Dilleniaceae) and were advanced in Australia's naturalized Cactaceae and *Rubus*, and in *Stackhousia* and *Kunzea*
- Collaboration developed on the molecular phylogeny of *Hakea*, and with support from New Zealand herbaria further work progressed on annual sections of that country's *Euphrasia* (Orobanchaceae) species.
- Taxonomic accounts were updated for Australian *Sida* and *Abutilon* (Malvaceae), and expanded for Australian Acanthaceae.
- Research continued into Alismatales, Zygothylaceae, Rhamnaceae, *Carpobrotus*, Bartramiaceae (Bryophyta), Rhodophyta (*Hypnea* and the order Gracilariales) and the marine algal flora of the Great Australian Bight, and *Acacia* complexes in South Australia. *Flora of Australia* accounts of genera of Pottiaceae (Bryophyta) also advanced.
- Surveys included the floras of the Great Australian Bight and the fungal hotspots macrofungi and phoenicoid ascomycetes of Kangaroo Island.

The landmark project to make available online the full back catalogue of the *Journal of the Adelaide Botanic Gardens* was completed. The first chapters of the *Flora of South Australia* 5th edition were made available online and ongoing editing of other chapters is underway.

Science Resource Centre

Established in 2009, the Science Resource Centre (SRC) comprises the State Herbarium, knowledge coordination unit, a GIS and spatial analysis team and a Science Coordination Unit. The SRC currently resides within the Client Services Directorate of DENR and administration of the Herbarium lies within the SRC.

The SRC aims to support environmental management decisions based on good science and create a more connected science community within and beyond DENR. The SRC actively seeks partnerships with research institutes and other government agencies to instill a broader understanding of science in environmental management decisions. A Research Prospectus was prepared to showcase the SRC's research capacity and potential as a research partner (see Research Partnerships).

Threatened plant species

During 2011–12, 68 seed collections from native plant species were added to the Botanic Gardens of Adelaide Conservation Seed Bank. These collections comprised 26 species considered new to the Seed Bank, of which 12 are considered threatened in their natural habitat.

The Murray Darling Basin was the primary focus area this year, as flooding and good rainfall resulted in a number of floodplain species not seen for many years being located and seeds collected during field activities. Similarly recent fires (wildfires and prescribed burns) have resulted in a number of threatened fire ephemerals being collected within the region.

A collaboration across directorates within DENR explored the potential of compiling information on the vital attributes of threatened plant species in a pilot project aimed to assist with fire management.

The digital x-ray machine, purchased for testing seed viability last year, speeds up the process, improves accuracy, and reduces the number of seeds destroyed or lost from storage. The primary focus of seed biology research is to develop germination methods for native plant species. Germination trials began in late 2010–2011 for the 2011 year, and by September 2012 it is envisaged that approximately 200 species will have been trialed for germination capacity.

Other advances included:

- 59% of South Australia's recognised threatened native plant species are now conserved in the Conservation Seed Bank.
- The Seed Conservation Centre delivered workshops entitled 'Floodplain Flora' and 'Plant Identification' at Calperum Station (near Renmark), with assistance from the Australian Landscape Trust. Participants included staff from DENR, Department of Water, Goolwa to Wellington Local Action Planning Association, Murray Darling Basin NRM and volunteers from across the region. The workshops focused on identifying and collecting floodplain flora and potential weed threats in the Murray River.
- Long-term in situ research continued on *Prostanthera eurybioides*, *Brachyscome muelleri* and *Acanthocladium dockeri*.



Native seed germination

- Workshops and data compilation of vital attributes of threatened species from the Adelaide and Mount Lofty area led to new information being included into the species attributes of the Biological Database of South Australia. The utility of these attributes to inform landscape management is being investigated.
- 11% of threatened plant species in the Seed Bank collection was used in restoration and revegetation programs

Landscape restoration

More than 1 300 native plants propagated by the Botanic Gardens were provided for two restoration projects. The first was near Frances (in the South East), where 10 species (four considered threatened) were planted. The second was undertaken in collaboration with the Goolwa to Wellington Local Action Planning Association, where a further three species were provided for work on a privately owned property near Callington. Botanic Gardens staff also helped with planting.

The second year of the Iluka Restoration Technology project was completed. The project objective was to provide information that will be useful for the rehabilitation of Yellabinna Regional Reserve, post-mining. To date, research has focused on investigating the properties of seed germination, storage, longevity, dormancy and salt tolerance of 35 native plants species that occur within the reserve.

This collaboration with Iluka Resources Ltd has helped improve understanding of South Australian arid-zone species and will facilitate decisions for revegetation of the area in the future. To date, 11% of the threatened species in the Seed Bank Collection have been used in private landowners community groups and local action planning association restoration and revegetation programs with which the Botanic Gardens has been associated.

Weeds project

External funding continued to make it possible for the Herbarium to employ a Weeds Botanist, who continues to improve basic knowledge of taxonomy and distribution of weedy plants in South Australia.

Funding from the State NRM program targets surveillance for new weed threats, in collaboration with Biosecurity SA and the Department of Primary Industries and Resources SA. During the year, specimens were collected of 26 plants not previously recorded in South

Australia. These were deposited in the State Herbarium and recorded as naturalised or questionably naturalised in the Census of South Australian Plants, Algae and Fungi. The project involved working collaboratively with NRM officers and the community, in particular Trees for Life.

Species of concern detected were:

- *Mesembryanthemum guerichianum*— first collected in South Australia in January 2012 by staff of the State Herbarium and subsequently observed and collected in the border areas of Victoria and New South Wales by staff of the Herbarium Victoria.
- *Alisma lanceolatum*—a serious weed in many aquatic systems found in New South Wales, Victoria and Western Australia and a known weed in South Africa and the United States. It thrives in shallow, slow-moving or stationary, nutrient rich water.
- *Helianthus tuberosus*—a known weed in New South Wales, Victoria, Western Australia and internationally.

The 'Community Implementation of Biological Control of Weeds Across South-Eastern Australia' component of the much larger 'Caring for our Country' project came to a close, after funding was sourced through the Victorian Department of Primary Industries for the second and final year. The Herbarium identified and mapped blackberry taxa from southern Australia, linking into wider biological control projects.

Knowledge Sharing

A number of initiatives in 2011–12 continued the long-held tradition of the State Herbarium to share its knowledge and research with the community and make it easier for scientists, researchers and students to access information critical to their work.

A new specimen digitisation facility, co-funded by the Atlas of Living Australia program and the Andrew W Mellon Foundation, was established in the Herbarium, to facilitate the process of digitising all of the Herbarium's type specimens.

This is part of an international effort under the Global Plant Initiative (GPI) type specimen digitisation project. As part of the Australian effort, the more than 2 000 type specimens lodged in the State Herbarium will be delivered to the GPI.

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 State Herbarium played a key role in the 4th International Barcode of Life Conference, and plenary talks from the conference are online at <http://www.slideshare.net/CBOLAdelaide2011/presentations>.

The *Flora of South Australia* describes all known native and naturalised vascular plant species in the state. It is the basic taxonomic work on which many other researchers, agencies and the general public rely.

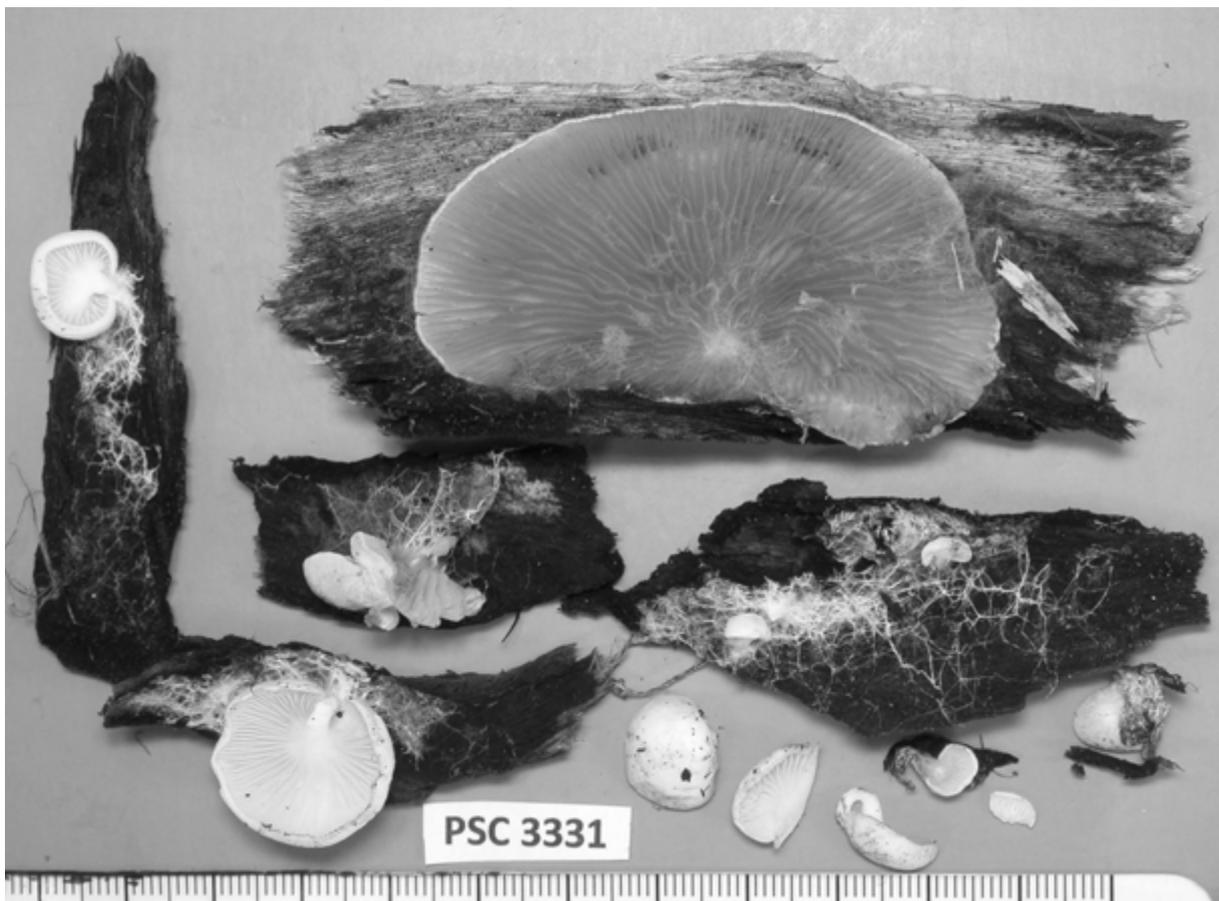
The fifth edition of the *Flora* is being released online as each section is completed; the site was launched with 17 family treatments, a glossary and an introduction and is being updated incrementally. When completed it will include more than 1000 new taxa.

The site www.flora.sa.gov.au/publications also contains the complete Journal of the Adelaide Botanic Gardens, as well as information on State Herbarium books and the back catalogue for out-of-print journal publications.

Journal of the Adelaide Botanic Gardens

The Journal publishes research articles in systematic botany, botanical history and related fields. Peer-reviewed, it meets international standards, and is distributed mainly by exchange to interstate and overseas institutions.

Significant work on producing Volume 25 was completed in 2011–12, and is scheduled for release in July 2012. The Journal features eight articles from local and national authors, the revision of *Stellaria* (Caryophyllaceae) in Australia, papers on *Hibbertia* (Dilleniaceae) and a report on a new naturalised fungus.



Entoloma parasiticum

Connecting with People

We aspire to . . .

continually engage with different communities to learn from and to inspire one another, and to encourage greater social inclusion and community development

Highlight objectives

- By 2012, volunteer participation increased by 10%
- By 2012, at least 60 scientific and other publications are produced each year (10% peer reviewed) and publicly available
- By 2012, increased participation of disadvantaged schools sector in education programs
- By 2012, 100 000 people participate in Botanic Garden public events annually
- By 2012, Indigenous reconciliation and inclusion initiatives are imbedded in visitor interpretation and education programs
- By 2012 establish three web-based initiatives connecting the Gardens' collections with the community

Highlight achievements

- Volunteers contributed more than 36 000 hours, the 20% increase exceeding the target
- 80 scientific and other publications produced, with 63% peer reviewed
- In excess of 100 000 visitors participated in the Gardens' public events program annually
- Indigenous cultural studies embedded in education programs
- Eight web-based initiatives were developed to increase community connectivity with Gardens' plant knowledge
- The Digger's Club retail shop established—the first outside Victoria
- Two community-based Garden Blitzes conducted at Mount Lofty Botanic Garden
- More than 50 000 students participated in schools education program
- World Environment Day numbers up by 33%

Connecting People: in focus

An aim of the Board is that all members of the community benefit from their experience of the Gardens, at events, online, and through books, to learn from and inspire one another and encourage greater social inclusion and community development. More than this, the Board looks to engage people in fundamental messages to do with the role of plants in sustaining life; in providing food, clothing and shelter; and as medicinal resources. The new digital technologies play an ever-

increasing role, and include QR Codes, applications for education purposes, and online access to the Garden and Herbarium Collections and knowledge.

Community Education

Four issues of the community education and events calendar, *A Season in the Gardens*, were released. Highlights of the year were indigenous tours, Aboriginal food and plant trails and *Making Fire and Making Glue* workshops run by Indigenous Culture for Kids; a huge variety of well-received school holiday programs; a 'Feast from the Garden' food trail for Tasting Australia; and the Native Orchids Society Discovery Walk in Mount Lofty Botanic Garden.

Digital and web-based initiatives designed to enhance the interpretive experience for visitors included:

- Virtual tours (delivered via MyParx), such as 'How Botanic Gardens Helped Change the World' and 'World Environment Day'
- Audio tours for the SA Water Mediterranean Garden, ATCO Heritage Rose Garden, Garden of Health and Bicentennial Conservatory
- The QR codes trial, where in-depth information about plants was accessed via smart phones, proved popular, with visitors. Additional plant information will be added to the QR codes system during 2012–13.
- An interactive game for children, 'Hidden Park'—a magical fantasy adventure through Adelaide Botanic Garden.
- The Landscapes Alive Plant Selector online tool (which was expanded to cover the entire state of South Australia) and Garden of Health website
- A wireless hotspot installed in the visitor precinct area of Adelaide Botanic Garden

The Digger's Club Shop Opened

Established in 1978, The Diggers' Club today is Australia's largest garden club. It was set up to preserve Australia's best plants and garden traditions and increase the growing of food in backyards.

The first Diggers Club Shop outside Victoria opened at the Adelaide Botanic Garden on 1 October 2011.

The shop offers a large range of food plants, including heirloom vegetable seeds, dwarf fruit trees, sub-tropical

fruits, and flowering plants, trees and shrubs. Visitors can also stock up on garden hardware, and browse through a range of garden books. Visitors can now buy seeds and plants and plant, water, feed and watch them grow at home and enjoy the benefits of harvesting, preparing and eating their own produce.

The venture links with the Garden's own Kitchen Garden initiative, which establishes a central hub that combines expertise, education, connection and collaboration.

Amenity Improvements

Work progressed during the year to make access easier across the Gardens and improve visitor amenity. Projects included:

- The reengineering of several major thoroughfares in Adelaide Garden, including the design and documentation of the north and western paths through the Murdoch Avenue and Cycad collection, with works scheduled for construction in 2013.
- Landscaping throughout Botanic Park, finalising the previous realignment of Plane Tree and Botanic Drives, including the interface with Zoos SA.
- Design and documentation of the Class 1 Disability Trail at Mount Lofty Garden, with construction programmed for completion in 2012–13.
- A mobile food and beverage service at Mount Lofty Garden, after collaborative arrangements were successfully negotiated with a local operator.
- Indicating excellence, the Gardens' caterer, Blanco Food & Events, was the recipient of a Hospitality Tourism Award in 2012.
- Visitor signage was upgraded at both Adelaide and Mount Lofty Gardens.

A Committed & Diversified Volunteer Base

Volunteers contributed more than 36 000 hours—a 20% increase from the previous year—to the Gardens and Herbarium programs in 2011–12.

They conducted free guided walks, provided information at the Visitor Information Centre, assisted with documentation in the State Herbarium, supported the Gardens' exhibitions and library collection and programs and undertook conservation research.

In the Herbarium, tasks undertaken by volunteers included ongoing curation and labelling, incorporating the backlog of biological survey specimens and updating nomenclature on several thousand foreign moss species. The scanning of many of the Herbarium's past publications for eventual uploading online was another significant contribution.

The Friends of the Botanic Gardens (through the provision of Garden Guides, Growing Group and others), Honorary Research Associates and specialist horticultural societies continued to make an enormous contribution, maintaining the excellence of the Gardens' botanical collection and ensuring that their store of knowledge and experience is passed on to the next generation.

In 2012, long-standing volunteer and member of the Friends of the Botanic Gardens, Mrs Barbara Wheaton was awarded an Order of Australia Medal for her contribution to the Friends and the Gardens.

Wittunga Botanic Garden was again supported by an active volunteer program, which provided invaluable assistance in the maintenance and development of the house grounds and terrace beds.

Table 4: Volunteer contribution

| Group | Hours |
|---|---------------|
| BGA volunteers | 4 389 |
| Friends of the Botanic Gardens | 21 560 |
| Societies | 710 |
| Herbarium—General | 3 272 |
| Herbarium—Honorary Research Assistants. | 6 731 |
| Total | 36 662 |

Two Garden Blitzes (in November 2011 and May 2012) were held at Mount Lofty Botanic Garden with volunteers and local community groups supporting seasonal maintenance programs throughout various sites. Local community groups, in particular the Mount Lofty Botanic Garden Support Group, remain committed to the on-going development of the Garden and as an Adelaide Hills tourist destination.

In recognition of the commitment of the many volunteers and in support of International Volunteer Day, the Board hosted its annual function of thanks.

Schools Education Service

The Botanic Gardens of Adelaide Education Service delivers curriculum-linked learning programs, events and performances to South Australian schools, using the Garden as a living museum for learning about plants, people and culture.

The Education Service integrates scientific, environmental and cultural education programs to maximise relevance to curriculum areas. The variety of approaches used to engage young people include discovery trails, celebratory events, environmental theatre, web-based educational resources and specialist presenters, including DENR staff and Aboriginal cultural instructors. Training workshops continued to update teachers' skills and knowledge, and a variety of environment-based educational partnerships with both government and non-government organisations enriched the delivery and diversity of program options.

The Education Service is a partnership between the Department for Education and Child Development (DECD) and the Botanic Gardens of Adelaide, and is highly valued by both partners.

The Schools Education Manager, a seconded officer from DECD, manages the service, with programs linking to the new and emerging Australian curriculum and modelling best practice in relation to the Teaching for Effective Learning strategy of the State Government.

In 2011–12, approximately 50 000 students participated in the service's education programs. Of these students, 3 446 were from 100 different disadvantaged schools. Strategies to increase the participation of disadvantaged schools included a number of free major events and programs, subsidised program support through the SA Water partnership, cost recovery pricing and special discounts for presenter-delivered programs.

A continued priority was to increase knowledge of traditional indigenous plant use and, as a consequence, students learn about Aboriginal culture more broadly. During the year, 3 494 students used the Garden to study Aboriginal plant use, with 85% (2 248) given instruction from an Aboriginal cultural instructor. Other groups used various web and print resources provided by the education service.

Free entry into the Bicentennial Conservatory offered the opportunity to include the venue in more educational trails planned for 2012–13, and the number of schools participating in these activities increased in 2011–12.

World Environment Day Grows in Popularity

On 5 June 2012, World Environment Day (WED) in the Adelaide Garden was pre-booked for more than 2 000 students (a 33% increase on last year), and the expanded event incorporated 23 environmental presentation stations. More than 40 Gardens' staff and volunteer Garden Guides presented engaging and interactive messages about the environment, with assistance from 14 community and government organisations, making it the biggest celebration of WED in South Australia to date. WED again provided a tangible and authentic learning backdrop for presenting current environmental messages.

Kids Teaching Kids

The Kids Teaching Kids: International River Health Conference was hosted in October 2011, as part of a continuing commitment to deliver positive and powerful environmental messages to school students through exciting opportunities for student learning and interaction. Kids Teaching Kids is an education model that aims to inspire future environmental leaders.



A living classroom

e-Learning

e-learning represents one of the fastest growth sectors in education and training in Australia. For its part, the Education Service manages an interactive resource-rich website, which allows schools to download materials, such as self-guided visits and information about special events and programs.

During the year construction advanced for a new website www.botanic.sa.edu.au and it will incorporate free downloadable trails and interactive educational experiences. Educational trails for the Garden of Health and climate change were under development.

The development of interactive resources, using mobile phones and tablets, will be a major focus in 2012–13.

Events in the Garden

The Board's events program looks to connect with the South Australian community and, by showcasing the treasures of the Botanic Gardens of Adelaide and highlighting their history and cultural significance, open up opportunities to raise awareness of the Gardens' deeper purpose.

The 2011–12 program is set out below.

- **Garden of Health & Ginkgo Gate launch**
The new Garden and Ginkgo Gate were launched by Minister for Health and Ageing and Minister for The Arts, Hon. John Hill MP.
- ***Djalkiri* exhibition**
A collaboration of indigenous and non-indigenous artists following visits to the Northern Territory.
- ***Landscapes Alive Plant Selector* launch**
Minister Paul Caica MP launched the Plant Selector web tool, which enables people to choose plants best suited to their local area.
- ***Parklife***
A popular one-day dance music festival in Botanic Park for 18–35 year olds continued in popularity, with audience numbers at around 8 000.
- ***Waterwise at Wittunga***
This Friends of the Botanic Gardens community day at Wittunga Botanic Garden celebrated National Water Week, and featured water wise plants for home gardens and the Garden's collections.
- **The Diggers Garden Shop opened**
The Digger's Club officially opened the new shop on the Schomburgk Pavilion.
- ***A Fairies' Picnic***
The Friends of The Australian Ballet held a community picnic that featured ballet performances, an exhibition of ballet costumes from The Australian Ballet and dance-related activities for children.
- **Garden Blitzes**
The Gardens held two working bee events at Mount Lofty, indicating strong community support for and commitment to caring for its renowned living collections.
- ***Moonlight Cinema***
Evening screenings of popular, cult and traditional movies in the natural landscape of Botanic Park under the stars.
- **Volunteer Celebration**
A function of thanks for all Gardens' and State Herbarium volunteers, hosted by the Board on International Volunteer Day, recognising the important role of volunteers in the life of the Gardens.
- **Adelaide Symphony Orchestra Alfresco**
An evening concert of classics set in the picturesque Mount Lofty Botanic Garden.
- **Wittunga Under the Stars**
The Blackwood Lions Club hosted their annual community music event for approximately 500 people at Wittunga Botanic Garden.
- **Wind in the Willows as told by Mr Badger**
The Splash Theatre performance of this children's favourite as part of the 2012 Adelaide Fringe season was held in Adelaide Botanic Garden.
- ***Eventyr***
Emerging theatre company Beg, Borrow & Steal Theatre performed in Adelaide Botanic Garden for the 2012 Adelaide Fringe season.
- ***Cultivate***
Anna Small exhibited iron sculptures of medicinal plants in the Garden of Health in Adelaide Botanic Garden, as part of Adelaide Fringe 2012.

- *WOMADelaide*
A four-day family friendly world music, arts and dance festival, which attracted around 80 000 people to Botanic Park.
- Banks' Florilegium exhibition
The exhibition showcased 25 prints from Sir Joseph Banks' specimens and Sydney Parkinson's illustrations of Australian flora from Captain Cook's first voyage.
- World Environment Day School Quiz Trail
Over 2 000 school students from around South Australia converged on the Adelaide Garden for the purpose of learning about environmental issues and to celebrate positive action.
- Tasting Australia
Adelaide Botanic Garden was showcased during Tasting Australia with a self-guided trail, Feast from the Garden, a workshop on growing winter vegetables in containers, and the inaugural Tomato Sauce Challenge.



Tomato Sauce Challenge

Human Resource Management

Board members fees

The remuneration levels of Members of the Board are determined by the Governor of South Australia. In 2011–12 they were:

| | |
|------------------|----------|
| Presiding Member | \$18 334 |
| Members | \$12 383 |

Staffing

The Board has no staff of its own and uses the services of DENR. Reporting on this matter is contained in the DENR Annual Report 2011–12.

Equal opportunity

Members are aware of and abide by the equal opportunity policies and programs of DENR. Reporting on this matter is contained in the DENR Annual Report 2011–12.

Occupational health, safety and injury management

The Board is aware of and abides by DENR Occupational Health Safety & Injury Management (OHS&IM) policies. DENR management monitors and reports to the Board against OHS&IM targets each month. Reporting on this matter is contained in the DENR Annual Report 2011–12.

The Board continues to improve OHS&IM through staff engagement in policy development and implementation. This resulted in a zero Lost Time Injury rate for the year.

The Garden OHS Committee met quarterly, provided advice to management on resolution of OHS&IM issues and carried out regular workplace inspections. Other initiatives included:

- Presentations to staff by guest speakers, on areas such as workplace harmony and wellbeing, and a safe workplace culture
- A review of safe work practices, and adoption of the Take 10@10 initiative as part of Safe Work Week 2012
- Heat stress management, manual handling and step-back risk assessment training for staff
- Review of the Botanic Gardens Injury Management Plan.

Fire management

In implementing the Mount Lofty Botanic Garden Response to Fire Danger Rating 50+, Botanic Gardens management looked to ensure the safety of staff, volunteers and the public on days of high fire risk. Other initiatives undertaken in 2011–2012 included:

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



Banksia ornata

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Bank SA
Haigh's Chocolates

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

- Department of Environment and Natural Resources and Department of Planning, Transport and Infrastructure for continuous support, advice and assistance with the Board's capital works program
- Department for Education and Child Development 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.
- Urban Renewal Authority, Adelaide and Mount Lofty Ranges Natural Resources Management Board and

Department of Planning, Transport and Infrastructure_ for funding the Green Infrastructure Project

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.

The Board also acknowledges its alliance with WorkCoverSA and SA Water; alignments that enable the community to enjoy the benefits of two of Adelaide Garden's iconic interpretive demonstration gardens—the Garden of Health and SA Water Mediterranean 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.

Through its alliance with TAFE SA Regional, the Board looks to establish The Australian Centre of Horticultural Excellence (TACHE) to advance horticultural education locally, nationally and internationally.

The Board appreciates that its work would not be possible without the support of its sponsors, who contribute so generously throughout the year. For this, the Board extends its sincere appreciation.



Garden of Health opening From left to right Alex Reid (Exec Director, Arts SA, Stephen Forbes, (Director Botanic Gardens of Adelaide), Hon. John Hill MP (Minister for Health and Ageing & Minister of The Arts), Angela Valamanesh, Hossein Valamanesh (Ginkgo Gate Artists), Fiona MacLachlan, Skye McGregor (Thyne Reid Foundation), Rob Thomson (CEO WorkCover SA)

Adelaide Botanic Gardens Foundation

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 Foundation is the trustee of the not-for-profit Adelaide Botanic Gardens Fund, which has a tax-deductible gift recipient status.

Plant a Seed, a platform describing the historic and contemporary role of botanic gardens, was the Foundation's driving focus for 2011–12. Plant a Seed, launched at the opening of Banks Florilegium, will be used to introduce prospective supporters to the knowledge, collections and strategic direction of the Gardens.

Board members, the Foundation committee, representatives from the Friends, donors and Botanic Gardens gathered at the opening of Banks Florilegium, at which guest speaker James Darling spoke of the long tradition of philanthropy.

In 2011 the Board identified two priority projects for the Foundation—the Kitchen Garden and the Endowment Fund. The Kitchen Garden Campaign, working with concept plans and program material from the Kitchen Garden Initiative, will raise funds for an inclusive and interactive kitchen garden in Adelaide Botanic Garden, plus recurrent operational costs.

The establishment of a significant Endowment Fund, with interest distributed annually to Gardens' projects will increase financial security and provide an option for donors wishing to give to a specific project.

The Foundation continues to engage and involve donors in the life of the Gardens. The Spring–Summer Newsletter announced the opening of the Garden of Health; acknowledged the support of the Thyne Reid Foundation, WorkcoverSA and past Foundation donors; and highlighted the 200th anniversary of Richard Schomburgk.

The Foundation sincerely thanks Judy Potter for acting as interim Chair. Her leadership structured a targeted direction for Foundation achievement.

With regret, the Foundation noted the resignation of Deputy Chair Chris Laurie OAM, and recognised his dedication and outstanding service to the Gardens in general and the Board and Foundation in particular. Peter Cundall AM stepped down from the committee, but continues as a Foundation Ambassador and champion of the Gardens.

In 2012 the Foundation welcomed a new Chair, David Knox, and Jan Angas as Deputy Chair.

Foundation Committee

Mr David Knox (Chair)
Ms Jan Angas (Deputy Chair)
Mr Tom Verco (Treasurer)
Mr Stephen Couche
Ms Julie Mitchell
Mrs Helena Jenkinson

Ex Officio

Mr Stephen Forbes,
Director of Botanic Gardens and State Herbarium

Invited Guests

Ms Kate Punshon, Manager Business Development and Strategic Partnerships, Botanic Gardens of Adelaide

Foundation Ambassadors

The Foundation thanks the many people that champion the Gardens, including our Ambassadors who share their energy and passion.

Ms Maggie Beer
Mr Simon Bryant
Mr Michael Wheldon
Mr John Hughes

The Foundation acknowledges the significant contribution of the following:

Francis Principal

Santos

Schomburgk Circle

The Advertiser
BHP Billiton
SA Water
Thyne Reid Foundation
WorkCoverSA

Morley Circle

Adelaide Airport
Balnaves Foundation
Beach Energy
Coopers Brewery
Gerard Corporation
Macquarie Private Wealth
Perpetual

Friends of the Botanic Gardens of Adelaide

Founded in 1977 by the late Dr Collin Robjohns, the Friends of the Botanic Gardens of Adelaide was the first Botanic Gardens Friends group in Australia. Its formation and success helped inspire the founding of similar groups in all major and many regional botanic gardens in Australia.

The Board pays tribute to this pioneering spirit, and the continued enthusiasm of the Friends in pursuit of their objectives to foster interest in and raise funds for the Botanic Gardens of Adelaide. In particular, the Board acknowledges Mrs Barbara Wheaton, who was awarded a medal (OAM) in the General Division of the Queen's Birthday 2012 Honours List 'for service to the community, particularly through the Friends of the Botanic Gardens of Adelaide'.

Membership remained strong (at 900), and the Friends provided a range of visitor services throughout the year that would not otherwise have been possible.

During 2011–12, the Friends Garden Guides conducted more than 550 walks for more than

4 000 visitors across the three Gardens, including themed walks to reinforce events and programs. Special walks were conducted in support of Planet Ark, Palaeontology Week and History Week. More than 100 Guides conducted walks for visitors at Government House Open Day in March. In addition, guides have continued to research and develop self-guided and special walk trails.

The Growing Group continued propagating at Mount Lofty Botanic Garden with material collected from all three Gardens, and sales of these plants occurred on a monthly basis throughout the year.

The President of the Friends represented the Friends on the Wittunga Master Plan Reference Group, and a pilot program for volunteers, 'Hands on Hort', was initiated to help with Garden maintenance.

The Friends continued to contribute considerable time and effort to the Plant Biodiversity Centre, State Herbarium, Visitor Information Centre, library and Santos Museum of Economic Botany exhibition program. More detail on Friends' activities can be found as Appendix 8.

Reconciliation Statement

The Board acknowledges that the land on which it meets is the traditional lands of the Kurna people. It respects their special relationship with this land. The Board also acknowledges the Kurna 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 Kurna 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.



WOMADelaide in Botanic Park

Mandatory Reporting

Use of consultants

The Board did not engage any consultants in the reporting period.

Overseas travel

It is declared that no member of the Board travelled overseas on the business of the Board during the reporting period.

Disability action plan reporting

The Board uses the facilities and services of the staff of DENR. The members of the Board are aware of and abide by their obligations under the Commonwealth *Disability Discrimination Act 1992* and the State *Equal Opportunity Act 1984*.

All educational programs within the Gardens are adaptable to people with a disability, aiming to anticipate, adapt and respond flexibly as needs arise. Further reporting on this matter is contained in the DENR Annual Report 2011–12.

Asbestos management

Reporting on this matter is contained in the DENR Annual Report 2011–12.

Urban design charter

No events occurred in 2011–12 that required the Board to consider the principles of urban design contained in the South Australian Urban Design Charter.

Freedom of information statement and statistics

The Board participates in and abides by the arrangements outlined in the DENR Freedom of Information regime. Reporting on this matter is available on the DENR website www.environment.sa.gov.au

Energy efficiency action plan reporting

Reporting on this matter is contained in the DENR Annual Report 2011–12.

Greening of Government operations reporting

The GoGO Framework relates to waste, energy and water. Management of the Gardens is environmentally focused, and all events are organised to minimise any impact on the environment. Further reporting on the GoGO framework is contained in the DENR Annual Report 2011–12.

Regional impact assessment statement

The Board undertook no Regional Impact Assessment Statements in 2011–12.

Fraud

There were no instances of fraud detected in the activities undertaken by the Board. Financial services were provided to the Board by DENR. Strategies to detect instances of fraud are reported in the DENR Annual Report 2011–12

Whistleblowers

Reporting requirements against the *Whistleblowers Protection Act 1993* require the Board to report on the number of occasions at which public interest information has been disclosed to a Responsible Officer of the agency. There were no disclosures made during the 2011–12 financial year.



Adelaide Botanic Garden

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

DENR provides administrative resources for processing account payments. The Board's reporting on this matter is contained in the DENR Annual Report 2011–12.

Board of the Botanic Gardens and State Herbarium

Annual Financial Statements
For the year ended 30 June 2012



Our ref: A12/026

23 October 2012

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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 2012**

The audit of the accounts of the Board of the Botanic Gardens and State Herbarium (the Board) for the year ended 30 June 2012 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 is 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.

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

W J Tate
DEPUTY AUDITOR-GENERAL

enc



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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 2012. The financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2012
- a Statement of Financial Position as at 30 June 2012
- a Statement of Changes in Equity for the year ended 30 June 2012
- a Statement of Cash Flows for the year ended 30 June 2012
- notes, comprising a summary of significant accounting policies and other explanatory information
- a Certificate from the Member appointed to sign on behalf of the Chair, Director Botanic Gardens and Director Corporate Services, 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 2012, 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.



W J Tate
DEPUTY AUDITOR-GENERAL
23 October 2012

Board of the Botanic Gardens and State Herbarium

Annual Financial Statements

For the year ended 30 June 2012

Board of the Botanic Gardens and State Herbarium

Certification of the Financial Report

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 2012 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.


Rob DiMonte
Member appointed to
sign on behalf of Chair
18th October 2012


Stephen Forbes
Executive Director
16th October 2012


Mark Cawthorne
Director, Corporate Services
16th October 2012

Board of the Botanic Gardens and State Herbarium
Statement of Comprehensive Income
For the year ended 30 June 2012

| | Note | 2012 R'000 | 2011 R'000 |
|--|------|-----------------|---------------|
| Expenses | | | |
| Board member expenses | 5 | 121 | 109 |
| Supplies and services | 6 | 534 | 495 |
| Depreciation | 7 | 2,201 | 2,293 |
| Grants and subsidies | 8 | 1,368 | 1,280 |
| Other expenses | 9 | 1,647 | 52 |
| Total expenses | | 5,871 | 4,229 |
| Income | | | |
| Revenues from fees and charges | 10 | 1,190 | 964 |
| Grants and contributions | 11 | 206 | 119 |
| Interest revenues | 12 | 147 | 169 |
| Resources received free of charge | 13 | 1,914 | 2,287 |
| Other income | 14 | 546 | 258 |
| Total income | | 4,003 | 3,797 |
| Net cost of providing services | | 1,868 | 432 |
| Net result | | (1,868) | (432) |
| Other comprehensive income | | | |
| Changes in property, plant and equipment asset revaluation surplus | 18 | (14,578) | - |
| Total other comprehensive income | | (14,578) | - |
| Total comprehensive result | | (16,446) | (432) |

The net result and 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 2012

| | Note | 2012 \$'000 | 2011 \$'000 |
|--|------|----------------|----------------|
| Current assets | | | |
| Cash and cash equivalents | 15 | 3,068 | 2,933 |
| Receivables | 16 | 56 | 130 |
| Inventories | 17 | 136 | 155 |
| Other current assets | | - | 1 |
| Total current assets | | <u>3,260</u> | <u>3,219</u> |
| Non-current assets | | | |
| Property, plant and equipment | 18 | 42,489 | 59,370 |
| Total non-current assets | | <u>42,489</u> | <u>59,370</u> |
| Total assets | | <u>45,749</u> | <u>62,589</u> |
| Current liabilities | | | |
| Payables | 19 | 34 | 40 |
| Total current liabilities | | <u>34</u> | <u>40</u> |
| Total liabilities | | <u>34</u> | <u>40</u> |
| Net assets | | <u>45,715</u> | <u>62,549</u> |
| Equity | | | |
| Asset revaluation surplus | | 9,300 | 23,878 |
| Retained earnings | | 36,415 | 38,671 |
| Total equity | | <u>45,715</u> | <u>62,549</u> |
| The total equity is attributable to the SA Government as owner | | | |
| Unrecognised contractual commitments | 22 | | |
| Contingent assets and liabilities | 23 | | |

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 2012

| | Note | Asset Revaluation Surplus R'000 | Retained Earnings R'000 | Total R'000 |
|--|------|--|-------------------------------|-----------------|
| Balance at 30 June 2010 | | 23,878 | 39,345 | 63,223 |
| Asset adjustments - ARAMIS revisions | | - | (19) | (19) |
| Asset adjustments - general book collection | | - | (223) | (223) |
| Restated balance as at 30 June 2010 | | 23,878 | 39,103 | 62,981 |
| Net result for 2010-11 | | - | (432) | (432) |
| Total comprehensive result for 2010-11 | | - | (432) | (432) |
| Balance at 30 June 2011 | | 23,878 | 38,671 | 62,549 |
| 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 2011-12 | | (14,578) | (1,868) | (16,446) |
| Asset adjustments - ARAMIS revisions | | - | (388) | (388) |
| Balance at 30 June 2012 | | 9,300 | 36,415 | 45,715 |

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 2012

| | Note | 2012 \$'000 | 2011 \$'000 |
|---|-------------|----------------------------|----------------------------|
| Cash flows from operating activities | | | |
| Cash outflows | | | |
| Board member payments | | (121) | (109) |
| Payments for supplies and services | | (539) | (541) |
| Payments of grants and subsidies | | <u>(1,368)</u> | <u>(1,280)</u> |
| Cash used in operations | | (2,028) | (1,930) |
| Cash inflows | | | |
| Fees and charges | | 1,262 | 864 |
| Receipts from grants and contributions | | 206 | 119 |
| Interest received | | 149 | 166 |
| Other receipts | | <u>546</u> | <u>258</u> |
| Cash generated from operations | | 2,163 | 1,407 |
| Net cash provided by/(used in) operating activities | 20 | <u>135</u> | <u>(523)</u> |
| Net increase/(decrease) in cash and cash equivalents | | <u>135</u> | <u>(523)</u> |
| Cash and cash equivalents at the beginning of the period | | 2,933 | 3,456 |
| Cash and cash equivalents at the end of the period | 15 | <u><u>3,068</u></u> | <u><u>2,933</u></u> |

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 2012

Note Contents

Objectives and policies notes

- 1 Objectives of the Board
- 2 Summary of significant accounting policies
- 3 New and revised accounting standards and policies
- 4 Programs of the Board

Expense notes

- 5 Board member expenses
- 6 Supplies and services
- 7 Depreciation
- 8 Grants and subsidies
- 9 Other expenses

Income notes

- 10 Revenues from fees and charges
- 11 Grants and contributions
- 12 Interest revenues
- 13 Resources received free of charge
- 14 Other income

Asset notes

- 15 Cash and cash equivalents
- 16 Receivables
- 17 Inventories
- 18 Property, plant and equipment

Liability notes

- 19 Payables

Other notes

- 20 Cash flow reconciliation
- 21 Restrictions on contributions received
- 22 Unrecognised contractual commitments
- 23 Contingent assets and liabilities
- 24 Remuneration of board members
- 25 Events after the reporting period
- 26 Financial instruments / financial risk management
- 27 Activities undertaken by Department of Environment and Natural Resources

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

1 Objectives of the Board

(a) Strategic Context

The Board of the Botanic Gardens & State Herbarium (the Board) was established under Section 5 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 and Natural Resources (DENR) conducts a large number of activities directed towards meeting the Board's responsibilities under the Act. Due to DENR receiving appropriation funding, and directing and controlling the expenditure for these activities, the revenue and expenditure relating to those activities are recognised in DENR's financial statements rather than the Board's. Activities undertaken by DENR in support of the administration of the Act and Board are disclosed in Note 27.

In accordance with the provisions of the Act, the Board has delegated certain functions to officers within DENR 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 Trust for the reporting period ending 30 June 2012. These are outlined in Note 3.

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

(b) Basis of preparation

The preparation of the financial statements requires:

- the use of certain accounting estimates and 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 2012 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.

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

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

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

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 | 4-20 |
| Roads, Tracks and Trails | 6-35 |
| Furniture and Fittings | 10 |
| Buildings and Improvements | 15-80 |
| Other | 5-10 |
| Vehicles | 3-9 |

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 items combine amounts expected to be realised within twelve months and more than twelve months, the Board has separately disclosed the amounts expected to be recovered or settled after more than twelve months.

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

(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.

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, provide a unique scientific resource although 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 DENR'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.

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

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), AAPJ
- 1 July 2011, independent professional valuation, Herron Todd White, Mr Paul Tilley, FAPI, AREI, CREI (Val)
- 1 July 2011, valuation of other items:
 - Library collections, Michael Treloar, Antiquarian and member of ANZAAB, ILAB and AAADA
 - Fine Art Collections and Artefacts, Anthony Hurl, BA, MSA, MAASA, CINO, 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 restricted 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 DENR, 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 DENR.

(m) **Unrecognised contractual commitments and contingent assets and liabilities**

Commitments include operating lease, capital and remuneration commitments arising from contractual or statutory sources and are disclosed at their nominal value.

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

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

Following the valuation undertaken in 2011-12 by Michael Treloar, Antiquarian Booksellers, (member of ANZAAB, ILAB and AAADA), the Board has separated the Library Collections into "Rare Collections" and "General Collections". This has resulted in the annual depreciation increasing by \$75 000.

During the year, the Independent valuers reassessed the useful lives of property, plant and equipment assets during the revaluation process, resulting in a decrease in the estimated useful life of certain assets. This has resulted in an increase of \$1,495m in the amount of depreciation calculated on these assets in 2011-12 compared to the amount that would have been expensed based on previous estimates of useful lives. The higher depreciation expense will also be reflected in future years.

The Board did not voluntarily change any of its accounting policies during 2011-12.

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 2012. 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.

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

| | | | |
|---|-------------|--------------|--------------|
| 5 Board member expenses | | 2012 | 2011 |
| | | R'000 | R'000 |
| Board and committee fees | | 105 | 97 |
| Remuneration on-costs - superannuation | | 7 | 5 |
| Remuneration on-costs - other | | 6 | 5 |
| Other board related expenses | | 3 | 2 |
| Total: Board member expenses | | 121 | 109 |
| | | | |
| 6 Supplies and services | | 2012 | 2011 |
| | | R'000 | R'000 |
| Accommodation and property management expenses | | 39 | 39 |
| Consultants | | - | 7 |
| Cost of goods sold | | - | 7 |
| Auditors remuneration | | 22 | 22 |
| Fee for service | | 227 | 250 |
| General administration | | 172 | 95 |
| Minor works, maintenance & equipment | | 55 | 60 |
| Travel and accommodation | | 3 | 9 |
| Other | | 16 | 6 |
| Total: Supplies and services | | 534 | 495 |
| | | | |
| Supplies and services provided by entities within the SA Government | | | |
| Auditors remuneration | | 22 | 22 |
| Total: Supplies and services provided by entities within the SA Government | | 22 | 22 |
| | | | |
| Consultants | | | |
| The number of dollar amount of consultancies paid/payable (included in supplies and services expense) that fell within the following bands: | | | |
| | 2012 | 2011 | |
| | Number | Number | |
| Below \$10 000 | - | 1 | |
| Total paid/payable to the consultants engaged | - | 1 | |
| | | | |
| Auditor's remuneration | | | |
| | | 2012 | 2011 |
| | | R'000 | R'000 |
| Audit fees paid/payable to the Auditor-General's Department relating to the audit of financial statements | | 22 | 22 |
| Total: Audit fees | | 22 | 22 |
| | | | |
| 7 Depreciation | | 2012 | 2011 |
| | | R'000 | R'000 |
| Buildings and improvements | | 682 | 866 |
| Furniture and fittings | | 182 | 182 |
| Vehicles | | 6 | 5 |
| Park infrastructure | | 1,028 | 976 |
| Roads, tracks and trails | | 143 | 202 |
| Plant and equipment | | 85 | 62 |
| Other | | 75 | - |
| Total: Depreciation | | 2,201 | 2,293 |
| | | | |
| Change in depreciation due to a revaluation | | | |
| The Board revalued its Property, plant and equipment during 2011-12. As a result of the valuation, depreciation on these assets has decreased in the current reporting period by \$1.36m. | | | |
| | | | |
| Revision of accounting estimates | | | |
| During the year, the Independent valuers reassessed the useful lives of property, plant and equipment assets during the revaluation process, resulting in a decrease in the estimated useful life of certain assets. This has resulted in an increase of \$1.495m in the amount of depreciation calculated on these assets in 2011-12 compared to the amount that would have been expensed based on previous estimates of useful lives. The higher depreciation expense will also be reflected in future years. | | | |
| | | | |
| 8 Grants and subsidies | | 2012 | 2011 |
| | | R'000 | R'000 |
| State Government | | 1,348 | 1,280 |
| Universities | | 20 | - |
| Total: Grants and subsidies | | 1,368 | 1,280 |
| | | | |
| Grants and subsidies paid/payable to entities within the SA Government | | | |
| Department of Environment and Natural Resources | | 1,348 | 1,280 |
| Total: Grants and subsidies paid/payable to entities within the SA Government | | 1,348 | 1,280 |
| | | | |
| 9 Other expenses | | 2012 | 2011 |
| | | R'000 | R'000 |
| Revaluation decrements | | 1,628 | - |
| Inventory adjustments | | 19 | 52 |
| Total: Other expenses | | 1,647 | 52 |

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

| | | |
|---|----------------------|----------------------|
| 10 Revenues from fees and charges | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Admissions and guided tours | 62 | 86 |
| Explanation fees | 155 | 90 |
| Property rental and related income | 202 | 121 |
| Sale of goods | 19 | 47 |
| Car parking | 563 | 457 |
| Garden functions | 162 | 160 |
| Sale of support services | 27 | 3 |
| Total: Revenue from fees and charges | <u>1,190</u> | <u>964</u> |
| | | |
| 11 Grants and contributions | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Grants received from other entities within the SA Government | 206 | 119 |
| Total: Grants and contributions | <u>206</u> | <u>119</u> |
| | | |
| Grants and contributions received/receivable from entities within the SA Government | | |
| Department of Environment and Natural Resources * | 129 | 119 |
| Other state government grants | 77 | - |
| Total: Grants and contributions received/receivable from entities within the SA Government | <u>206</u> | <u>119</u> |
| | | |
| * Department of Environment and Natural Resources contributions: | | |
| Room hire | - | 1 |
| Sitting fee reimbursement | 118 | 108 |
| Project work reimbursement | 11 | 10 |
| | <u>129</u> | <u>119</u> |
| | | |
| 12 Interest revenues | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Interest on deposit accounts - from entities within the SA Government | 147 | 169 |
| Total: Interest revenues | <u>147</u> | <u>169</u> |
| | | |
| 13 Resources received free of charge | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Resources received free of charge from entities within the SA Government | | |
| Park infrastructure | 1,619 | 743 |
| Roads, tracks and trails | 261 | 1,306 |
| Vehicles | 12 | - |
| Furniture and fittings | - | 11 |
| Plant and equipment | 22 | 227 |
| Total: Resources received free of charge from entities within the SA Government | <u>1,914</u> | <u>2,287</u> |
| | | |
| The assets transferred free of charge from DENR to the Board during 2011-12 relate primarily to the Garden of Health project (\$1.207m). | | |
| | | |
| 14 Other income | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Sponsorships, donations, commissions and bequests | 493 | 239 |
| Other sundry revenue | 53 | 19 |
| Total: Other income | <u>546</u> | <u>258</u> |
| | | |
| 15 Cash and cash equivalents | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Deposits with the Treasurer | 3,068 | 2,933 |
| Total: Cash and cash equivalents | <u>3,068</u> | <u>2,933</u> |
| | | |
| 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. | | |
| | | |
| 16 Receivables | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Current | | |
| Receivables | 43 | 115 |
| Accrued revenues | 13 | 15 |
| Total: Current receivables | <u>56</u> | <u>130</u> |
| | | |
| Receivables from entities within the SA Government | | |
| Receivables | 5 | 86 |
| Accrued revenues | 13 | 15 |
| Total: Receivables from entities within the SA Government | <u>18</u> | <u>101</u> |
| | | |
| 17 Inventories | 2012 | 2011 |
| | <small>€'000</small> | <small>€'000</small> |
| Inventories held for resale - at cost | | |
| Finished goods held for resale - at cost | 136 | 155 |
| Total: Inventories | <u>136</u> | <u>155</u> |

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

18 Property, plant and equipment

| | 2012 \$'000 | 2011 \$'000 |
|---|----------------------|----------------------|
| Land | | |
| Independent valuation (i) | 3,767 | 2,292 |
| Total: Land | <u>3,767</u> | <u>2,292</u> |
| Buildings and improvements | | |
| Independent valuation (i) | 38,273 | 47,531 |
| At cost (ii) | - | 3,500 |
| Less: Accumulated depreciation | (15,621) | (15,015) |
| Total: Buildings and improvements | <u>22,652</u> | <u>36,016</u> |
| Park infrastructure | | |
| Independent valuation (i) | 54,204 | 47,885 |
| At cost (ii) | 2,053 | 3,570 |
| Less: Accumulated depreciation | (49,348) | (40,516) |
| Total: Park infrastructure | <u>6,909</u> | <u>10,719</u> |
| Roads, tracks and trails | | |
| Independent valuation (i) | 3,823 | 2,768 |
| At cost (ii) | 276 | 2,950 |
| Less: Accumulated depreciation | (3,007) | (2,853) |
| Total: Roads, tracks and trails | <u>1,092</u> | <u>2,865</u> |
| Vehicles | | |
| At cost (deemed fair value) (ii) | 71 | 59 |
| Less: Accumulated depreciation | (26) | (20) |
| Total: Vehicles | <u>45</u> | <u>39</u> |
| Furniture and fittings | | |
| At cost (deemed fair value) (ii) | 1,794 | 1,794 |
| Less: Accumulated depreciation | (734) | (552) |
| Total: Furniture and fittings | <u>1,060</u> | <u>1,242</u> |
| Plant and equipment | | |
| At cost (deemed fair value) (ii) | 729 | 707 |
| Less: Accumulated depreciation | (277) | (192) |
| Total: Plant and equipment | <u>452</u> | <u>515</u> |
| Other - Books and Artefacts | | |
| Independent valuation (i) | 7,784 | 5,905 |
| Less: Accumulated depreciation | (1,272) | (223) |
| Total: Other | <u>6,512</u> | <u>5,682</u> |
| Total: Property, plant and equipment | <u><u>42,489</u></u> | <u><u>59,370</u></u> |

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(o) 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 | 2012 Sub-total | 2011 Sub-total |
|--|--------------|---------------|----------------------|------------------------|-----------|----------------------|-------------------|--------------|----------------|----------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| 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) | (284) | - | - | - | 905 | (14,578) | |
| Assets received for nil consideration | - | - | 1,818 | 281 | 12 | - | 22 | 0 | 1,914 | |
| ARAMIS revisions upwards/(downwards) | - | - | (388) | - | - | - | 0 | - | (388) | |
| Revaluation Decrement - expensed in the current period | - | - | - | (1,628) | - | - | - | - | (1,628) | |
| Carrying amount at the end of period | <u>3,767</u> | <u>22,652</u> | <u>6,909</u> | <u>1,092</u> | <u>45</u> | <u>1,060</u> | <u>452</u> | <u>6,512</u> | <u>42,489</u> | |
| 2011 | | | | | | | | | | |
| Carrying amount at the start of period | 2,292 | 36,901 | 10,952 | 1,760 | 44 | 1,412 | 350 | 5,683 | 59,396 | |
| Transfers between classes | - | - | - | - | - | - | 1 | (1) | (0) | |
| Depreciation expense | - | (666) | (976) | (202) | (5) | (182) | (82) | - | (2,293) | |
| Assets received for nil consideration | - | - | 743 | 1,306 | - | 11 | 227 | - | 2,287 | |
| Acamis revisions upwards/(downwards) | - | (19) | - | 1 | - | - | (1) | - | (19) | |
| Carrying amount at the end of period | <u>2,292</u> | <u>36,016</u> | <u>10,719</u> | <u>2,865</u> | <u>39</u> | <u>1,242</u> | <u>515</u> | <u>5,682</u> | <u>59,370</u> | |

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

| 19 Payables | 2012 | 2011 |
|---|-------------|-------------|
| | <i>€000</i> | <i>€000</i> |
| Current | | |
| Accrued expenses | 22 | 22 |
| Creditors | 12 | 18 |
| Total: Current Payables | 34 | 40 |
| | | |
| Payables to entities within the SA Government | | |
| Accrued expenses | 22 | 22 |
| Creditors | 1 | 11 |
| Total: Payables to entities within the SA Government | 23 | 33 |

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.

| 20 Cash flow reconciliation | 2012 | 2011 |
|--|----------------|--------------|
| | <i>€000</i> | <i>€000</i> |
| Reconciliation of cash and cash equivalents at the end of the reporting period: | | |
| Cash and cash equivalents disclosed in the Statement of Financial Position | 3,068 | 2,933 |
| Cash and cash equivalents disclosed in the Statement of Cash Flows | 3,068 | 2,933 |
| | | |
| Reconciliation of net cash provided by operating activities to net result | | |
| Net cash (used in) / provided by operating activities | 135 | (523) |
| Add/(less) non-cash items | | |
| Depreciation expense of non-current assets | (2,201) | (2,293) |
| Assets received free of charge | 1,914 | 2,287 |
| Decrement on revaluation of non-current assets | (1,628) | - |
| | | |
| Movement in assets and liabilities | | |
| (Decrease)/increase in receivables | (74) | 104 |
| (Decrease)/increase in inventories | (19) | (52) |
| (Decrease)/increase in other assets | (1) | 1 |
| (Increase)/decrease in payables | 6 | 44 |
| Net cost of providing service | (1,865) | (432) |

21 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:

| | 2012 | 2011 |
|--|--------------|--------------|
| | <i>€000</i> | <i>€000</i> |
| Books and publications | 98 | 77 |
| Garden improvements | 1,877 | 1,393 |
| Research | 228 | 225 |
| Other | 931 | 830 |
| Total: Restrictions on contributions received | 2,934 | 2,525 |

22 Unrecognised contractual commitments

The Board had no unrecognised contractual commitments as at 30 June 2012. All capital commitments associated with the Board are managed by the Department for Environment and Natural Resources and reflected in their financial statements.

23 Contingent assets and liabilities

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

24 Remuneration of board members

Members of the board and committee during the 2011/12 financial year were:

Board of the Botanic Gardens & State Herbarium
 Cross, K E
 Elstob, C A (appointed 5 July 2011)
 Howe, A D
 Jenkinson, H S (appointed 5 July 2011)
 Knox, D J W
 Koufs, J C (retired 4 July 2011)
 Levy, J A W
 Little, I B (retired 4 July 2011)
 Potler, J
 Storkey G D

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

The number of members whose remuneration received or receivable falls within the following bands:

| | 2012 | 2011 |
|--------------------------------|----------------|----------------|
| | No. of members | No. of members |
| \$nil | 2 | - |
| \$1 - \$9 999 | - | 3 |
| \$10 000 - \$19 999 | 7 | 6 |
| \$20 000 - \$29 999 | 1 | - |
| Total number of members | 10 | 9 |

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 \$112 000 (2011: \$102 500).

In accordance with the Premier and Cabinet's Circular Number 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.

25 Events after the reporting period

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

26 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 | 2012 | | 2011 | |
|--|-------------|-----------------|------------|-----------------|------------|
| | | Carrying amount | Fair value | Carrying amount | Fair value |
| | | €000 | €000 | €000 | €000 |
| Financial assets | | | | | |
| Cash and cash equivalents | 15 | 3,068 | 3,068 | 2,933 | 2,933 |
| Receivables ⁽¹⁾ | 16 | 56 | 56 | 130 | 130 |
| Financial liabilities | | | | | |
| Payables ⁽¹⁾ | 19 | 12 | 12 | 18 | 18 |

(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) except for employee on-costs which are determined via reference to the employee benefit liability to which they apply.

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 |
| 2012 | | | | | |
| Not impaired Receivables | 51 | 4 | - | 1 | 56 |
| 2011 | | | | | |
| Not impaired Receivables | 123 | 5 | 1 | 1 | 130 |

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.

Board of the Botanic Gardens and State Herbarium
Notes to and forming part of the Financial Statements
For the year ended 30 June 2012

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.

27 Activities undertaken by Department of Environment and Natural Resources

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

| | 2012 | 2011 |
|---|--------------|--------------|
| | \$'000 | \$'000 |
| Expenses from ordinary activities | | |
| Employee benefits | 4,885 | 5,277 |
| Supplies and services | 3,167 | 3,773 |
| Grants and subsidies | 118 | 108 |
| Depreciation | 169 | 146 |
| Net Loss from disposal of non-current assets | (3) | (1) |
| Other expenses | 1,418 | 80 |
| Total: Expenses from ordinary activities | <u>9,754</u> | <u>9,383</u> |
| Revenues from ordinary activities | | |
| Fees and charges | 29 | 627 |
| Grants and contributions | 4,250 | 2,739 |
| Other income | 92 | 57 |
| Total: Revenues from ordinary activities | <u>4,371</u> | <u>3,423</u> |
| Net cost of activities undertaken by Department of Environment and Natural Resources | <u>5,383</u> | <u>5,960</u> |

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**. * refereed publication.

*Bannister JM, **Conran JG**, Lee DE. 2012. Lauraceae from rainforest surrounding an early Miocene maar lake, Otago, southern New Zealand. *Review of Palaeobotany and Palynology* 178: 13-34.

***Barker, RM** and **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: 97-101.

Barker, RM. 2011. "Deaths", "Books of Interest", "Websites of Interest" and "Current and Coming Exhibitions" compilations. *Australasian Systematic Botany Society Newsletter* 149: 60-62.

Barker RM. and **Barker WR**. 2012. Marking a Newsletter's 150th issue. *Australasian Systematic Botany Society Newsletter* 150: 17-18

Barker RM. 2012. "Food for thought" and "Websites of interest" compilations. *Australasian Systematic Botany Society Newsletter* 150: 68-70.

Barker, RM and **Barker, WR**. 2012 Deaths. David Symon, Michael Lazarides, Bernard Verdcourt, Denis Gibbons. *Australasian Systematic Botany Society Newsletter* 149: 40-41, figs. 1-2.

Barker, RM and **Barker, WR**. 2012. Marking a Newsletter's 150th issue. *Australasian Systematic Botany Society Newsletter* 150: 17.

***Barker, WR** and Cockerton, GTB. 2011. *Stackhousia stratfordiae* (Celastraceae: Stackhousioideae), a remarkable new species from a remote location near Norseman, south-west Western Australia. *Nuytsia*, 21 (2): 69-74.

***Barker, WR**, Nesom, GL, Beardsley, PM and Fraga, NS. 2012. A taxonomic conspectus of Phrymaceae: a narrowed circumscription for *Mimulus*, new and resurrected genera, and new names and combinations. *Phytoneuron* 39: 1-60.

*Beaumont KP, Mackay DA, **Whalen MA**. 2011. Interactions between ants and seeds of two myrmecochorous plant species in recently burnt and long-unburnt forest sites. *Austral Ecology* 36: 767-778.

*Beaumont KP, Mackay DA, **Whalen MA**. 2012. The effects of prescribed burning on epigeic ant communities in eucalypt forest of South Australia. *Forest Ecology and Management* 271: 147-157.

Bell JD, Johnson JE, Ganachaud AS, Gehrke PC, Hobday AJ, Hoegh-Guldberg O, Le Borgne R, Lehodey P, Lough JM, Pickering T, Pratchett MS and **Waycott M**. 2011. Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change: Summary for Pacific Island Countries and Territories. Secretariat of the Pacific Community, Noumea, New Caledonia. 386 pp.

*Bell JD, Andrew NL, Batty MJ, Chapman LB, Dambacher JM, Dawson B, Ganachaud AS, Gehrke PC, Hampton J, Hobday AJ, Hoegh-Guldberg O, Johnson JE, Kinch JP, Le Borgne R, Lehodey P, Lough JM, Pickering TD, Pratchett MS, Vunisea A and **Waycott M**. 2011. Chapter 13 Adapting tropical Pacific fisheries and aquaculture to climate change: Management measures, policies and investments In: JD Bell, JE Johnson and AJ Hobday (eds) *Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change*. Secretariat of the Pacific Community, Noumea, New Caledonia. p. 803-874.

***Biffin, E, Brodribb, TJ**, Hill, RS http://apps.webofknowledge.com.proxy.library.adelaide.edu.au/OneClickSearch.do?product=UA&search_mode=OneClickSearch&colName=WOS&SID=R16@02Cg9omB1K9AADG&field=AU&value=Thomas, P and Lowe, AJ. 2012. Leaf evolution in Southern Hemisphere conifers tracks the angiosperm ecological radiation. *Proceedings of The Royal Society B-Biological Sciences* 279 (1727): 341-348.

*Biffin, E, Conran, J and **Lowe, AJ**. 2011. Podocarp Evolution: A Molecular Phylogenetic Perspective. Ch 1 in *Ecology and Ecophysiology of Tropical Conifers*. *Smithsonian Contributions to Botany*, pp 1-20.

*Breed, MF, Gardner, MG, Ottewell, KM, Navarro, CM and **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, Ottewell K, Gardner MG and **Lowe AJ**. 2011. Clarifying climate change adaptation responses for scattered trees in modified landscapes. *Journal of Applied Ecology* 48: 637-641.

*Bricker E, **Waycott M, Calladine A**, Zieman JC (2011) High connectivity across environmental gradients and implications for phenotypic plasticity in a marine plant. *Marine Ecology Progress Series* 423, 57-67.

*Burge, DO, Erwin, DM, Islam, MB, **Kellermann, J**, Kembel, SA, Wilken, DH and Manos, PS. 2011. Diversification of Ceanothus (Rhamnaceae) in the California Floristic Province. *International Journal of Plant Sciences* 172: 1137-1164.

Brodie, CJ. 2011. Juglandaceae (version 1). In **Kellermann, J**. (ed) *Flora of South Australia* 5th ed. State Herbarium of South Australia, Adelaide.

Brodie, CJ. 2011. Passifloraceae (version 1). In **Kellermann, J**. (ed) *Flora of South Australia* 5th ed. State Herbarium of South Australia, Adelaide.

Canty, P 2012. '*Dasyuroides byrnei*, Kowari.' In Queensland's Threatened Animals, 338-340. (eds LK Curtis, AJ Dennis, KR McDonald, PM Kyne and SJS Debus) CSIRO Publishing, Melbourne.

***Catcheside, PS** and Catcheside, DEA. 2012. *Boletus edulis* (Boletaceae), a new record for Australia. *Journal of the Adelaide Botanic Gardens* 25: 1-4.

- *Clarkson, J and **Barker, WR**. 2012 The Common Seal of the Society – a phantom no more! *Australasian Systematic Botany Society Newsletter* 149: 45.
- ***Clarke, LJ, Jardine, DI, Byrne, M**, Shepherd K http://apps.webofknowledge.com.proxy.library.adelaide.edu.au/OneClickSearch.do?product=UA&search_mode=OneClickSearch&colName=WOS&SID=R16f02Cg9omB1K9AADG&field=AU&value=Shepherd, Kand Lowe, AJ. 2012. Significant population genetic structure detected for a new and highly restricted species of *Atriplex* (Chenopodiaceae) from Western Australia, and implications for conservation management. *Australian Journal of Botany* 60(1): 32-41.
- *Clarke LJ, Mackay DA, **Whalen MA**. 2011. Isolation of microsatellites from *Baumea juncea* (Cyperaceae). *Conservation Genetics Resources* 3: 113-115.
- *Collier C, Uthicke S, **Waycott M**. (2011) Thermal tolerance of two seagrass species to current and future sea temperature in the Great Barrier Reef and implications for their distribution. *Limnology and Oceanography* 56, 2200-2210.
- *Collier C, **Waycott M**, Giraldo Ospina A (2011) Shading responses in four tropical seagrass species. *Marine Pollution Bulletin* 65, 342-354.
- *Collier C, **Waycott M**, McKenzie L (2012) Light thresholds derived from seagrass loss. *Ecological Indicators* 23, 211-219.
- Conran, JG. 2012. The genus *Alisma* (Alismataceae) in South Australia. *Journal of the Adelaide Botanic Gardens* 25: 11-16.
- Conran, JG, Barker, RM and 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: 17-26.
- *Costion, C, Ford, A, **Cross, H**, Crayn, D, Harrington, M and **Lowe, AJ**. 2011. Plant DNA barcodes can accurately estimate species richness in poorly known floras. *PLoS ONE* 6(11): e26841. doi:10.1371/journal.pone.0026841.
- ***Costion, CM, Liston, J, Kitalong, AH, Iida, A and Lowe, AJ**. 2012. Using the ancient past for establishing current threat in poorly inventoried regions. *Biological Conservation* 147(1): 153-162.
- *Dixon, RRM, Spencer P, Buchana J, **Gurgel CFD** and Huisman J.M. 2012. A 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*: available online.
- Forbes, SJ**. 2012. History of roses in Botanic Gardens of Adelaide. *Rose Society of South Australia Bulletin* 50(3): 28-31.
- ***Forbes, SJ**. 2011. Science and policy: valuing framing, language and listening. *Botanical Journal of the Linnean Society* 166(3): 217-226.
- *Fox S, **Waycott M**, Blair D, Luly J. 2012. Regional genetic differentiation in the spectacled flying fox (*Pteropus conspicillatus* Gould) *Terra Australis* Volume 34: Peopled Landscapes: Archaeological and Biogeographic Approaches to Landscapes. Eds Haberle SG and David B. p. 459-472.
- *Gardner, MG, Fitch, AJ, Bertozzi, T and **Lowe, AJ**. 2011. Rise of the machines - recommendations for ecologists when using next generation sequencing for microsatellite development. *Molecular Ecology Resources* 11(6): 1093-1101.
- *Gulbransen D, McGlathery K, Marklund M, Norris JN and **Gurgel CFD**. 2012. *Gracilaria vermiculophylla* in the Virginia (VA) Coastal Bays, USA: cox1 analysis reveals the genetic diversity of an invasive macroalga. *Journal of Phycology* (In press).
- *Hereward, JP, Walter, GH, **Lowe, AJ**, DeBarro, PJ and Riginos, C. 2012. Host-associated differentiation and gene flow in the green mirid, *Creontiades dilutus* (Hemiptera: Miridae), across arid and agricultural environments. *Molecular Ecology* (In press).
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Appendix 2: Research Collaborations

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

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

Australian Plant Census (APC) network of contributors (Mrs Robyn Barker: 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 Jessica Beever, Landcare Research, NZ (Graham Bell: Flora of Australia treatment of the moss family Pottiaceae).

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 (Prof Michelle Waycott: systematics, evolution and population genetics of marine plants).

Mike Bunce, Murdoch University, WA (Dr Hugh Cross: Environmental DNA, ancient DNA, NGS methods; Prof Michelle Waycott, ancient DNA).

Dr Dylan Burge, Royal Botanic Gardens Sydney and Prof Michael Kiehn, Universit e Wien, Austria (Dr Bill Barker: *Stackhousia*).

Dr Dylan Burge, Royal Botanic Gardens Sydney (Dr J rgen Kellermann: North American Rhamnaceae, *Ceanothus*).

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

Dr John Conran, The University of Adelaide (Prof Michelle Waycott, Systematics of *Patersonia*, *Cassytha*, evolutionary genetics of *Cephalotus*. Mrs Robyn Barker: Correct name for

Lavatera species transferred to *Malva*).

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

Drs Ed Biffin University of Adelaide. (Hugh Cross and Peter Lang: DNA sequencing in Fabaceae).

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

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

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

Prof Bernd Degen, German Forestry Research Institute, BFI, Hambourg , 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 (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).

Ashley Field, Queensland Herbarium, Prof Michelle Waycott: systematics of tasselferns in genus *Huperzia*, evolution of tropical arid zone plants).

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

Dr 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 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*).

Hope Jahren, University of Hawaii, HI, 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).

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

Prof Don Les, University of Connecticut (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*).

Dr Adrienne Markey, Biodiversity Conservation Science Centre, Department for Environment and Conservation, WA, Steven Dillon, Western Australian Herbarium and G. Cockerton, Environmental Consultant, WA (Mrs Robyn Barker: New *Sida* species for WA).

Drs Austin Mast, Florida State University and Peter Weston, National Herbarium of New South Wales (Dr Bill and Mrs Robyn Barker: *Hakea*).

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

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 Darwinion, Argentina (Dr Jürgen Kellermann: Floral morphology, comparison with South American *Rhamnaceae*).

Dr Josephine Milne and Ms Helen Jolley, National Herbarium of Victoria (Graham Bell: Flora of Australia treatment of the moss family *Pottiaceae*).

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).

Guy Nesom, Research Affiliate, Herbarium of the University of Texas, USA; Paul Beardsley, State Polytechnic University, USA and Naomi Fraga, Rancho Santa Ana Botanic Garden, USA (Dr Bill Barker: *Phrymaceae*).

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

Prof Hugh Possingham, University of Queensland (Prof Andrew Lowe: Ecology, biogeography, dispersal and weed population dynamics).

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

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

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

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

Drs Maurizio Rosetto, Botanic Gardens Sydney, (Prof Andrew Lowe: Phylogeography and gene flow).

Maurizio Rosetto, Hannah McPherson and Marlien Van Der Merwe. Royal Botanic Gardens, Sydney (Dr Hugh Cross: TREND/BATS plant community ecology and evolution projects).

Dr Elizabeth Sinclair, University of Western Australia and 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).

Anna Syme, Daniel Murphy, Royal Botanic Gardens, Melbourne, VIC (Dr Hugh Cross: Grass DNA barcoding).

Dr Jennifer Tate, Massey University, NZ (Dr Bill and Mrs Robyn Barker: Collaboration on *Malvaceae*, particularly *Malveae*, in Australia and New Zealand).

Dr Frank Udovicic and 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).

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

Dr Kor-jent Van Dijk, James Cook University

Mr Mark Wapstra, Environmental Consultant, Tasmania (Dr Bill Barker: *Euphrasia* new species).

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

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

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

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

Appendix 3: Scientific Grants

Industry Grants

Dr Phil Ainsley. Iluka Resources Ltd. Restoration Technology Project Principle researcher Dr Jennifer Guerin (2010–2013, \$105 000).

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

Competitive Grants

Dr Phil Ainsley. Conserving threatened flora in the Murray Darling Basin. Native Vegetation Council Significant Environmental Benefits Grant (2011–2012; \$46 452).

Dr Phil Ainsley. Threatened flora in the Mt Barker area. Native Vegetation Council Significant Environmental Benefits Grant (2010–2012; \$29 760).

Chris Brodie and Peter Lang. Weed survey of the SA Cooper basin in the Arid Land. Santos & SAAL NRM (2011–2012; \$7,050).

Chris Brodie and Leanne Lawrence. Engage community groups to collect weeds on TFL, BFL and within the general landscape. Trees For Life (2011–2012; \$3 850).

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

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

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

Dr Fred Gurgel with Clark S, Nayar S, plus 9 others. Development of a Sustainable South Australian Macroalgal Aquaculture Industry. Premier's Science and Research Fund. (2011–2014; \$1,139 567).

Dr Fred Gurgel with Deveney M, Tanner J, Grewe P. Ecology, Physiology and Phylogeography: an integrated approach to the study of the invasive marine green macroalga *Caulerpa taxifolia* in Australia. ARC Linkage (2010–2012; \$318 000).

Dr Fred Gurgel with Huisman, JM and Kraft, G. The red algae of the Great Barrier Reef: first 8 Families. ABRS (2009–2012; \$240 000).

Dr Fred Gurgel and Tracey Spokes. Phylogenetics of Australian macroalgae. ABRS Honours Top-up Grant (2011; \$10 000).

Dr Fred Gurgel with Tanner J (Head Cl) plus 8 others. Feasibility study for integrated multi-trophic aquaculture in southern Australia. FRDC R&D Grant (2010–2013; \$ 1,118 654).

Dr Fred Gurgel and Chelsea Tothill. Phylogenetic analysis of the ecologically and economically important marine red algal genus *Hypnea* with the description of 5 new species from the Great Barrier Reef. ABRS Honours Top-up Grant (2011; \$10 000).

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

Prof Andrew Lowe, with Bradshaw C, van den Hengel A, Brook B and Cooper A (The University of Adelaide) Multi-model predictions of ecosystem flux under climate change based on novel genetic and image analysis methods. ARC Super Science Fellowships, FS1102 00051 (2011–2014; \$556 000).

Prof Andrew Lowe, with Martin Breed and Dr Kym Ottewell (The University of Adelaide). Developing best-practice approaches for restoring River Murray forest ecosystems that are resilient to climate change. SA Native Vegetation research Grant (2010–2112; \$45 000).

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

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

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

Prof Andrew Lowe with Degen B, Koch G, Hardy O, Doucet J-L, Höltken A, Cavers S, Boner M, Kelly S, Horacek M, Yéné Yéné G, Zahnen J, Opuni Frimpong E, Ngomanda A and Odee D. Development and implementation of a species identification and timber tracking system in Africa with DNA fingerprints and stable isotopes. International Tropical Timber Organisation (2012–2016; US\$ 1.7 million).

Prof Andrew Lowe and Dr Jeff Foulkes et al. National Scientific Reference Site Network—Australian Rangeland Ecosystems. Component of South Australian consortium application (coordinators Meyer W and Lowe AJ) for Terrestrial Ecosystem Research Network. NCRIS-DEST (2009–2012; \$3 million).

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

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

Prof Andrew Lowe, part of team led by Prof Wayne Meyer (The University of Adelaide). Climate Change, Communities and Environment: Building Research Capability to Identify Climate Change Vulnerability and Adaptation Options for South Australian Landscapes. Premier's Science and Research Fund (2009–2012; \$1.26 million).

Prof Andrew Lowe with Stuart Pillman, (Department for Environment and Natural Resources, SA), Paul Coddington and Chris Jenkins (The University of Adelaide) Eco-informatics—integrating and visualizing ecosystems information. Component of South Australian consortium application (coordinators Meyer W and Lowe AJ) for Terrestrial Ecosystem Research Network. NCRIS-DEST (2009–2012; \$4.5 million).

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

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

Prof Andrew Lowe with Walker C, Chinnick P and Turner D. From soils to satellites: Data integration across domains. Australian National Data Service (2012-1014; \$500 000).

Prof Andrew Lowe, part of team lead by Prof Steve Williams (James Cook University) and including Hughes L, Stafford-Smith M, Possingham H, Hoffman A, Brook B, Pressey B, Williams D, Garnett S, Kitching R, Thomas C and Moritz C. Terrestrial Biodiversity, Adaptation Research Network, National Climate Change Adaptation Research Facility (2009-2013; \$1.6 million).

H.R. Toelken Revision of *Hibbertia* in Eastern Australia. ABRS Capacity Building Grant 2011-2012; \$5 000).

Vonow H, and Brodie C, 2009-2012. Weeds detection in South Australia, partnership with J Virtue, Biosecurity SA, NRM Partnership fund. \$360,000.

Waycott M, joint CI on project with G. Kendrick (UWA) (2011-2013) Establishing genetic guidelines for the effective ecological restoration of seagrass meadows, ARC Linkage LP100200429 (\$325K)

Waycott M, joint CI on project led by C Collier (2011-2013) Vulnerability of seagrass habitats in the GBR to flood plume impacts: light, nutrients, salinity. NERP GBR Hub (\$300K)

Waycott M, Lead CI (2011-2013) Reef Rescue Marine Monitoring Program – seagrass monitoring Great Barrier Reef Marine Park Authority – Reef Rescue (\$417K)

Appendix 4: Research Students

Post doctorate

Dr Mike Gardner, University of Adelaide/Flinders University. Climate change refugia and conservation genetics in South Australia. Supervised by Prof Andrew Lowe, employed through ARC, DEH and Flinders University (2006–2012).

Ph.D

Ms Rina Aleman, University of South Australia. Investigating the seed biology and germination requirements of *Brachyscome* species in South Australia. Supervised by Dr Phil Ainsley and Dr Manfred Jusaitis in conjunction with Drs Fleur Tiver and Joan Gibbs, University of South Australia.

Mr Gareth Belton, 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, University of Adelaide. Restoration and landscape genetics, modelling and planning. Supervised by Prof Andrew Lowe.

Mr Austin Brown, University of Adelaide. Speciation mechanisms in Australasian *Lachnagrostis*. Supervised by Prof Andrew Lowe and Dr Hugh Cross in conjunction with Prof David Cantrill and D Murphy, University of Adelaide.

Mr Craig Costion, 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.

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.

Ms Ellie Dormontt, University of Adelaide. Ecological and genomic approaches to address alternative hypotheses in a recent Australian weed *Senecio*. Supervised by Prof Andrew Lowe in conjunction with Dr Peter Prentis.

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, WA.

Mr Ashley Field, James Cook University, Systematics of Australian tassel ferns. Supervised by Prof Michelle Waycott, Prof Joe Holtum, James Cook University, and Dr Peter Bostock, Queensland Herbarium.

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.

Mr James Hereward, University of Queensland. Host association, co-evolution and gene flow in mirids. Supervised by Prof Andrew Lowe in conjunction with Prof Gimme Walter, University of Queensland.

Ms Margaret Heslewood, University of Adelaide. Biogeography of *Cunoniaceae*. Supervised by Prof Andrew Lowe in conjunction with Maruzio 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 in conjunction with Dr John Conran, University of Adelaide.

Mr Rohan Melick, University of Adelaide. Investigating the influence of past climate change on the distribution of *Podocarpus*: Evidence from fossil and molecular data. Supervised by Prof Andrew Lowe in conjunction with Prof Bob Hill, The University of Adelaide; and Dr Maurizio Rosetto, National Herbarium of New South Wales.

Mrs Made Ni Gari, University of Adelaide. Systematics of *Patersonia*. Supervised by Dr John Conran and Prof Michelle Waycott University of Adelaide and State Herbarium of South Australia, and Dr Terry Macfarlane, Western Australia Department of Environment and Conservation.

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, University of South Australia.

Ms Jolene Scoble, University of Adelaide. Novel approaches for assessing historical and contemporary vegetation condition in Australian rangelands. Supervised by Prof Andrew Lowe in conjunction with Anita Smyth and Leo Joseph, CSIRO.

Ms Nuttanun Soisup, University of Adelaide. Molecular systematics and phylogeography of selected Australian *Phaeophyceae*. Supervised by Dr Fred Gurgel and Prof Andrew Lowe.

Ms Tracey Spokes, University of Adelaide. Project: Phylogeography of selected marine macroalgae with emphasis of Australian taxa. Supervised by Dr Fred Gurgel.

Ms Emma Steggles, University of Adelaide. Investigating soil seed bank dynamics of the Western Myall (*Acacia papyrocarpa*) woodland within Yellabinna Regional Reserve. Supervised by Dr Phil Ainsley in conjunction with Prof Jose Facelli and Dr Leanne Pound, University of Adelaide.

Mr William Taylor, University of Adelaide. Ecology, Physiology and Phylogeography of invasive species of *Caulerpa* in Australia. Supervised by Dr Fred Gurgel.

Ms Debra Van Gyen. University of Adelaide. Project: Systematics of selected Australian Marine Macroalgae. Supervised by Dr Fred Gurgel.

Ms Kathryn Wiltshire, University of Adelaide. Development of a Multitrophic Offshore Aquaculture System for South Australia. Supervised by Dr Fred Gurgel.

Ms Jennifer Young, University of Adelaide, Forensic Applications of Environmental Genomics (ACAD) Supervised by Dr Hugh Cross.

M.Sc

Khadijah Awang, University of Adelaide. Systematics of *Cassytha*. Supervised by Dr John Conran and Prof Michelle Waycott University of Adelaide and State Herbarium of South Australia.

Ms Fadiya Hallaby, University of Adelaide. Further investigation of native orange (*Capparis mitchellii*) and native lime (*Citrus glauca*) micropropagation. Supervised by Dr Phil Ainsley and Dr Manfred Jusaitis in conjunction with Dr Michelle Wirthensohn, University of Adelaide.

B Sc (Hons)

Ms Nicole Dowling, University of Adelaide. Seed quality and asymbiotic germination techniques for native terrestrial orchid species. Supervised by Dr Manfred Jusaitis and Dr Phil Ainsley in conjunction with Assoc Prof David Paton, University of Adelaide.

Mr Nick Kalfas, University of Adelaide, Phylogeography and Coevolution: How fragmented populations affect the structure of species in a commensal relationship. Supervised

by Supervised by Dr John Conran and Prof Michelle Waycott University of Adelaide and State Herbarium of South Australia.

Ms Kimberly McCallum, University of Adelaide. A multidisciplinary approach to conserving *Callistemon teretifolius* in a changing climate. Supervised by Prof Andrew Lowe and Dr Greg Guerin.

Ms Stephanie Papantoniou, University of Adelaide. Effects of warming and ocean acidification of selected South Australian calcified marine red macroalgae. Supervised by Dr Fred Gurgel.

Mr Karl Shelly, University of Adelaide. Evolutionary correlates between agar rheological properties and Gracilariaceae evolution based on rbcL DNA sequences. Supervised by Dr Fred Gurgel.

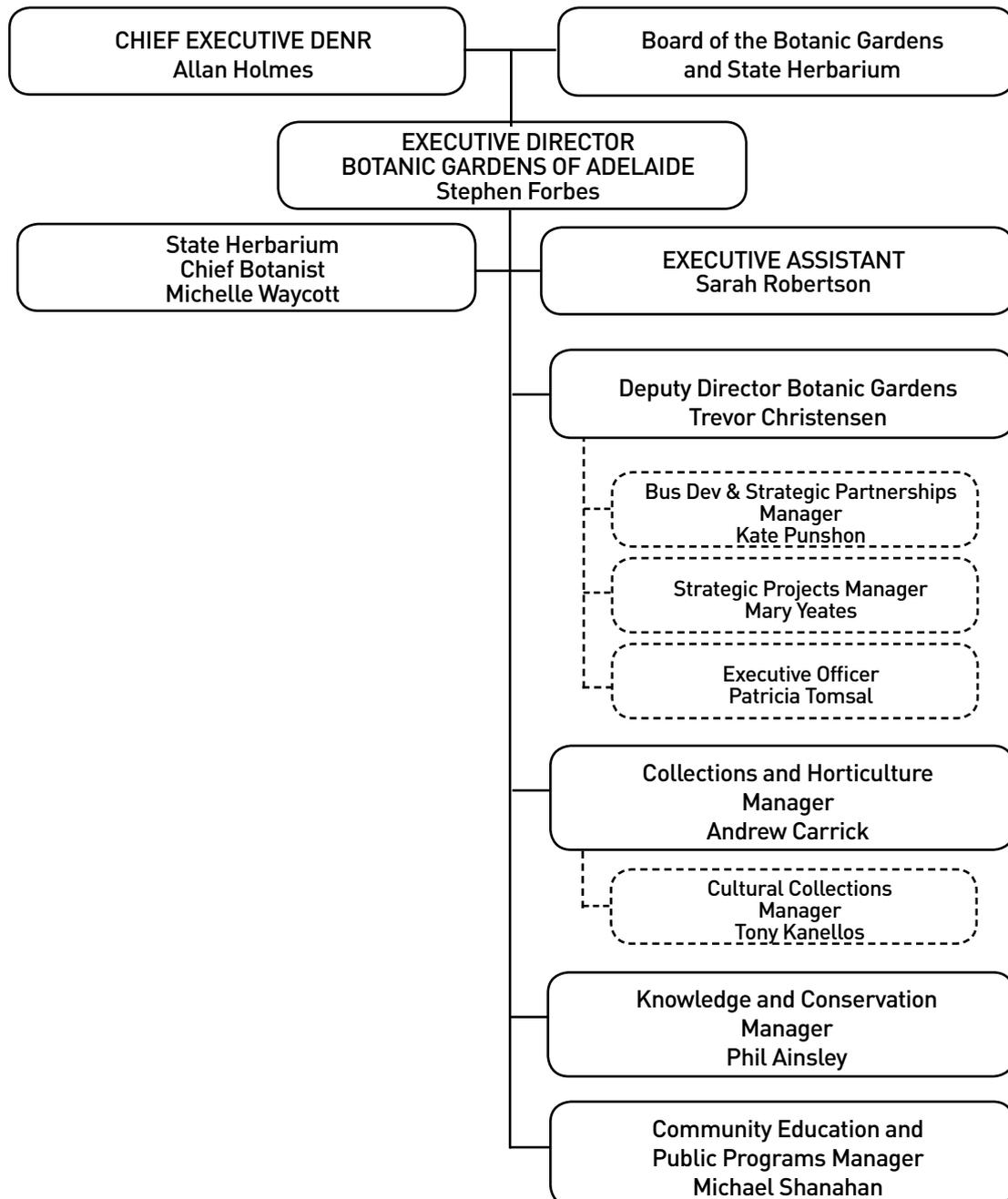
Mr Nuno Tavares, University of Adelaide. Brazil Without Boards Program. Molecular systematics of Australian Rhodogorgonales (Rhodophyta). Supervised by Dr Fred Gurgel.

Ms Chelsea Tohill, University of Adelaide. Molecular systematics of the red algal genus *Hypnea* (Gigartinales, Rhodophyta). Supervised by Dr Fred Gurgel.

Mr Ricky Williams University of Adelaide, Monitoring the invasiveness of Dune Onion Weed (*Trachyandra divaricata*: Liliaceae) on the LeFevre Peninsula sand dunes, South Australia Supervised by Supervised by Dr John Conran and Prof Michelle Waycott University of Adelaide and State Herbarium of South Australia.

Appendix 5: Organisational Chart

BOARD OF THE BOTANIC GARDENS AND STATE HERBARIUM REPORTING STRUCTURE 30 JUNE 2012



Appendix 6:

Botanic Gardens and State Herbarium Staff List

Director's Office

Stephen Forbes, Director Botanic Gardens and State Herbarium, and Executive Director, Botanic Gardens of Adelaide
Phil Ainsley, Manager, Knowledge and Conservation
Helen Bariamis, Support Services Officer
Andrew Carrick, Manager, Collections and Horticulture
Trevor Christensen, Deputy Director
Fiona Crowe, Communications Coordinator
Daniel Duval, Senior Seed Collection Officer
Nicky Fidler, Trainee Coordinator/ Projects Officer
Jenny Guerin, Seed Research Officer
Manfred Jusaitis, Senior Seed Scientist
Tony Kanellos, Manager, Cultural Collections
Stephen Kingdon, Technical Officer
Adam Lanzafame, Data Base Project Officer
Sheryn Pitman, Project Officer, Sustainable Landscapes
Kate Punshon, Manager, Business Development and Strategic Partnerships
Nicole Reynolds, Event Programme Coordinator
Sarah Robertson, Executive Assistant to Executive Director
John Sandham, Collections Development Officer
Michael Shanahan, Manager, Community Education and Public Programs
Jo Staniforth, Project Officer, Community Kitchen Garden Project
Michael Thorpe, Seed Bank Curation Officer
Patricia Tomasi, Executive Assistant to the Board of Botanic Gardens and State Herbarium
Lorrae West, Librarian
Mary Yeates, Design and Strategic Projects Manager
Michael Yeo, Manager, Schools Education (seconded from DECS)

Adelaide Garden

Paul Arbon, Horticultural Curator
Jordan Behrndt, Gardener
Peter Borgelt, Gardener
Peter Bowron, Handyperson
Evan Brougham, Horticultural Trainee
Darryl Byfield, Gardener
Angus Coulls, Horticultural Trainee
Lisa Duffy, Horticultural Trainee
Jessica Harbour, Horticultural Trainee
Andrew Hart, Gardener
Stephen Higgins, Senior Gardener
Peter Kannemann, Assistant Gardener
Stuart Maitland, Gardener
Hugh Matthews, Horticultural Trainee
John Ostbye, Horticultural Supervisor
Adam Pannell, Traffic Officer
Samuel Rose, Horticultural Trainee
Daryl Ruciak, Horticultural Trainee
Carolyn Sawtell, Horticultural Curator
Cliff Sawtell, Horticultural Supervisor
Karen Smith, Horticultural Curator
Enzo Vidoni, Horticultural Supervisor
Sharon Wilcox, Gardener
Ross Williams, Handyman, Team Leader
Paul Winter, Gardener

Mount Lofty and Wittunga Gardens

Tony Anderson, Gardener
Valdis Balodis, Gardener
Graeme Burdett, Senior Gardener
Matt Coulter, Horticultural Curator, Plant Propagator
Mark Devlin, Horticultural Curator
John Edgar, Gardener
Scott Foubister, Gardener
Robert Hatcher, Horticultural Supervisor
Stephen Havriluk, Senior Maintenance Officer
John Henson, Gardener
Craig Lowe, Horticultural Supervisor
Christine Miljanovic, Horticultural Curator, Nursery Coordinator
Nick Milton, Senior Gardener
Mark Oborn, Horticultural Curator
Renie Ondo, Gardener
Cameron Peoples, Gardener
David Pepper, Maintenance Coordinator
David Rice, Maintenance Officer

Petrina (Jade) White, Horticultural Trainee
Chloe Williams, Horticultural Trainee

State Herbarium

Robyn Barker, Census and Flora Keys Coordinator
Graham Bell, Senior Botanist
Chris Brodie, Weeds Botanist
Sandy Carruthers, Manager, Science Resource Centre
Peter Canty, State Herbarium Manager
Hugh Cross, Molecular Botanist
Dean Cunningham, Technical Officer
Gilbert Dashorst, Botanical Artist
Fred Gurgel, Marine Botanist
Juergen Kellerman, Senior Botanist - Flora Coordination
Peter Lang, Scientific Officer, Monitoring and Databases
Martin O'Leary, Technical Officer
Andrea Ramsay, Technical Officer
Carolyn Ricci, Technical Officer (Phycology)
Jean Steele-Henderson, Data Capture Officer
Helen Vonow, Collections Manager
Lisa Waters, Data Capture Officer
Michelle Waycott, Chief Botanist

Honorary Research Associates

Bob Baldock
Bill Barker
Robyn Barker (part time)
Pam Catchside
Bob Chinnock
John Jessop
David Symon
Hellmut Toelken
Ainsley Calladine

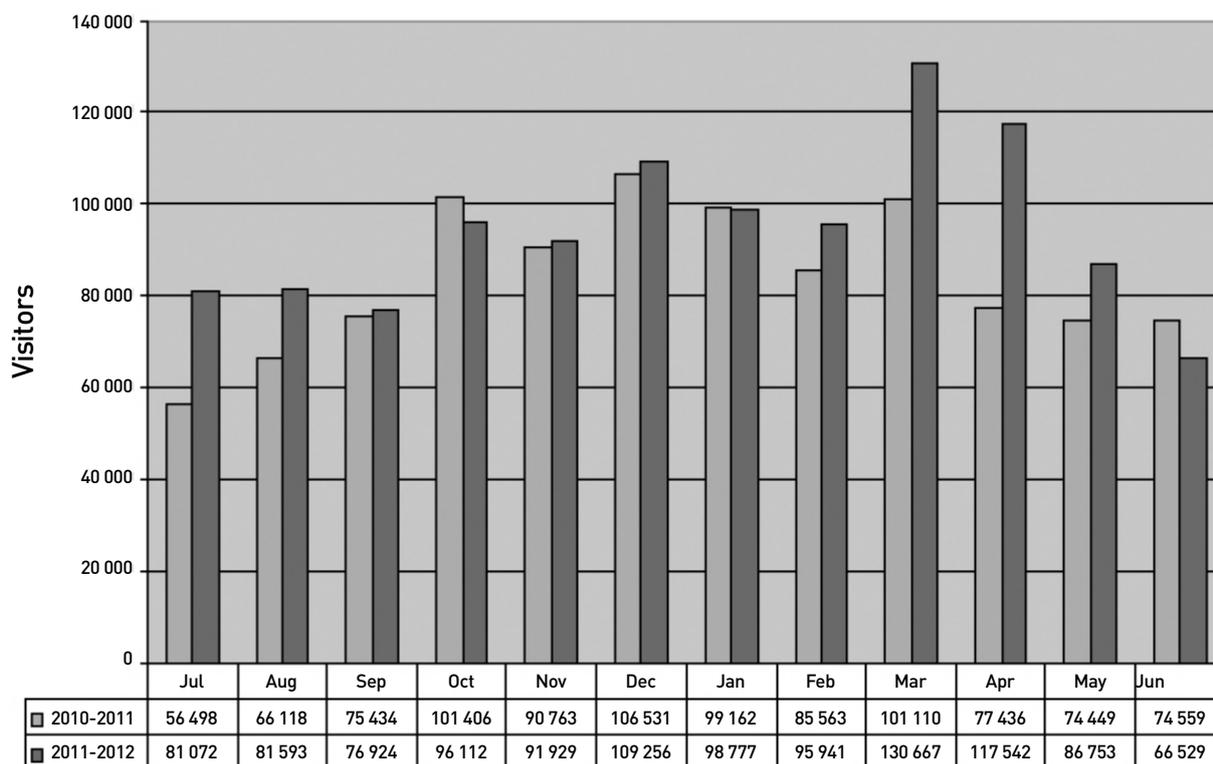
Honorary Affiliates

John Conran, The University of Adelaide
Molly Whalen, Flinders University

Appendix 7: Visitor Numbers

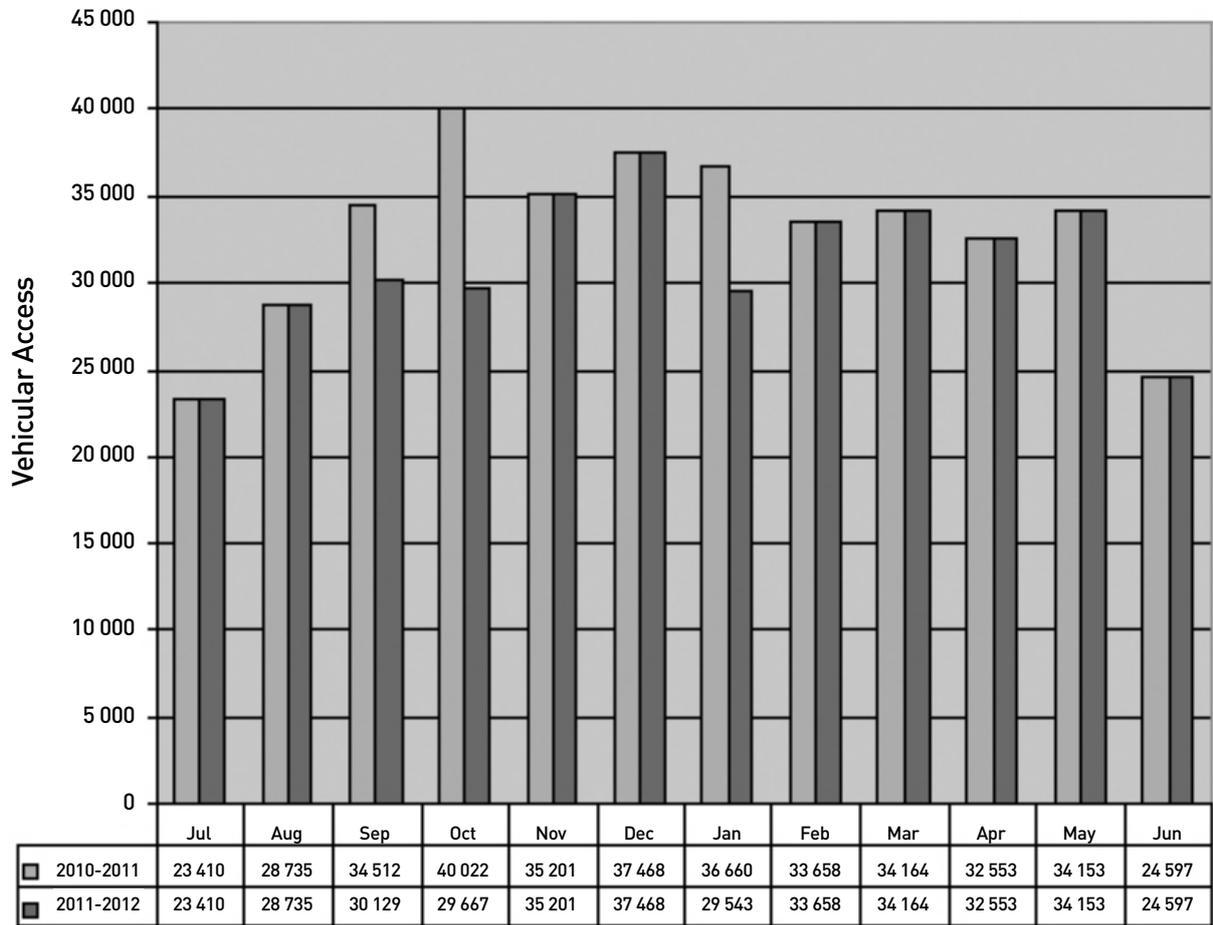
1. Adelaide Garden

1.1 Adelaide Botanic Garden Attendance – Visitor Numbers



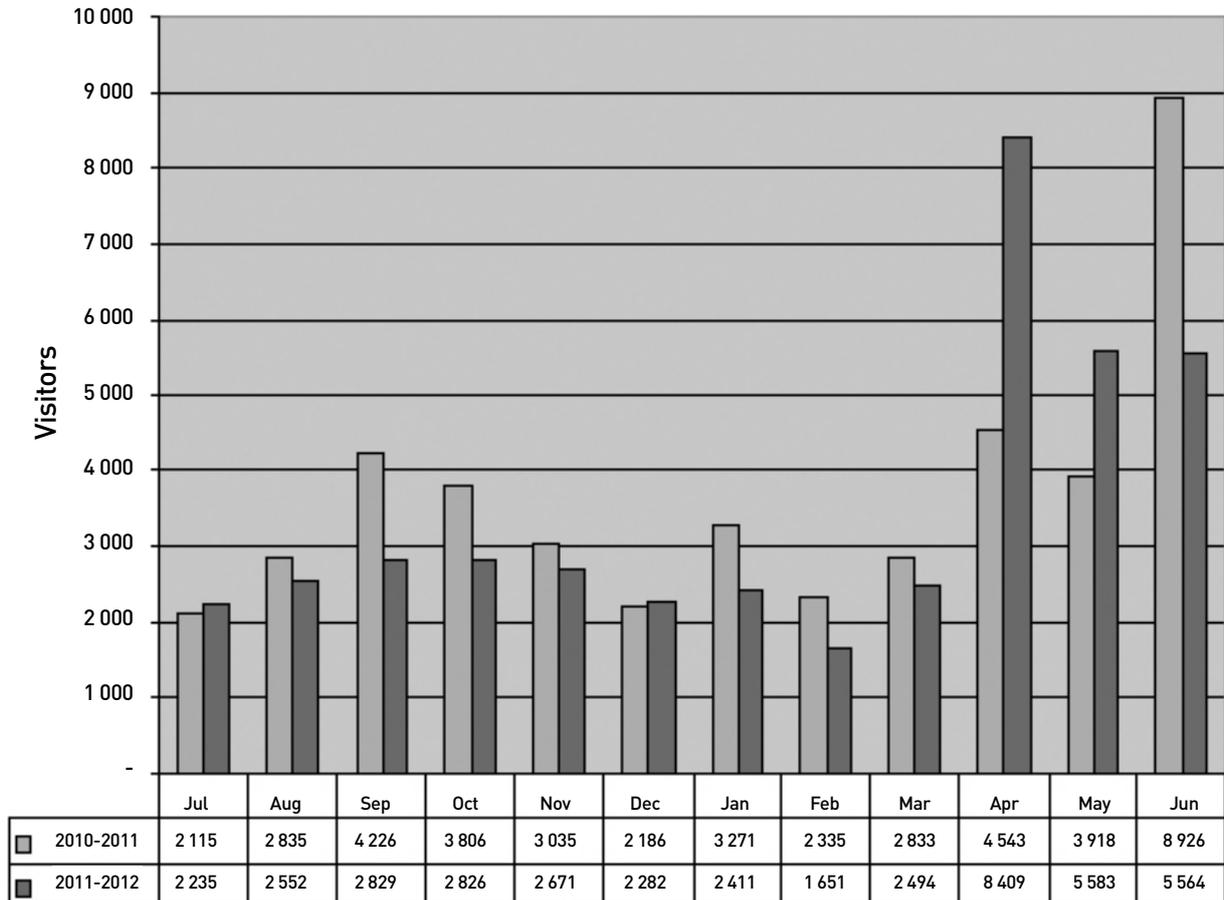
| Adelaide Botanic Garden | |
|-----------------------------|-----------|
| Total Jul 2010 to June 2011 | 1 009 029 |
| Total Jul 2011 to June 2012 | 1 133 095 |

1.2 Adelaide Botanic Park Vehicle Access



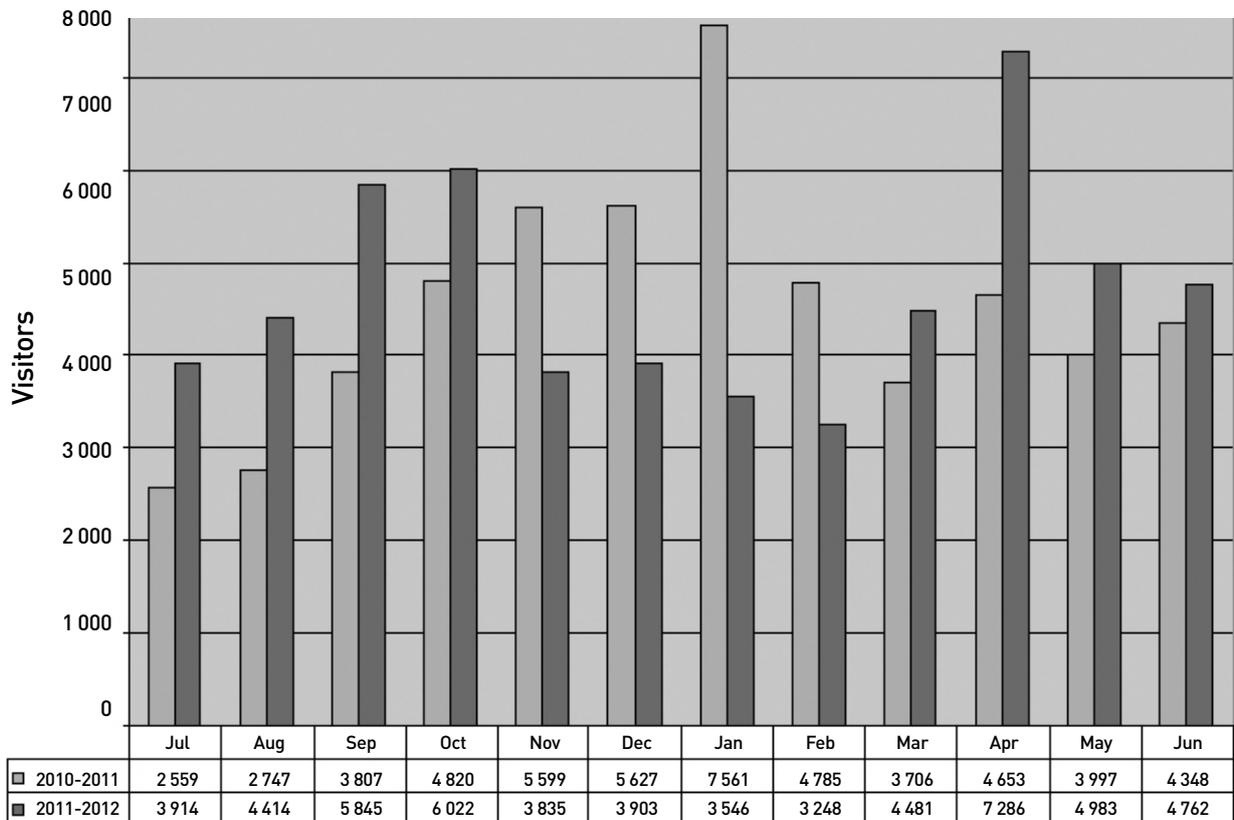
| Adelaide Botanic Park Vehicle Access | |
|--------------------------------------|---------|
| Total Jul 2010 to June 2011 | 395 133 |
| Total Jul 2011 to June 2012 | 373 278 |

1.3 Bicentennial Conservatory



| Bicentennial Conservatory | |
|-----------------------------|--------|
| Total Jul 2010 to June 2011 | 44 029 |
| Total Jul 2011 to June 2012 | 41 507 |

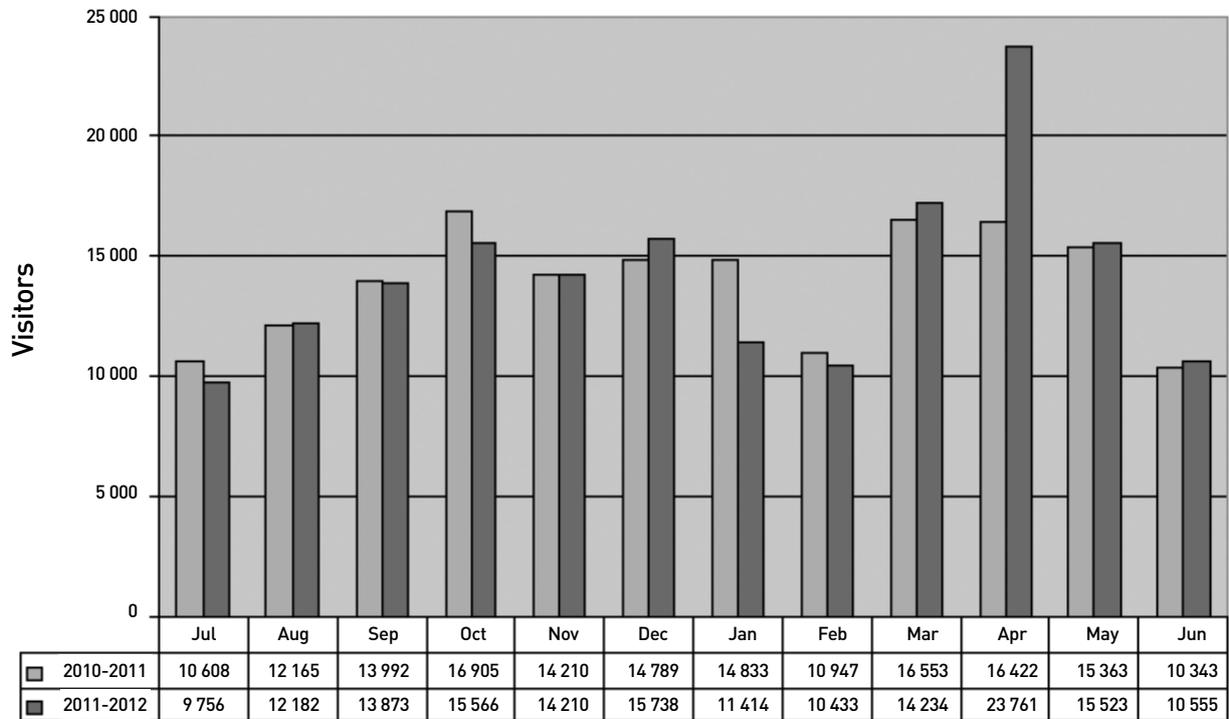
1.4 Santos Museum of Economic Botany



| Santos Museum of Economic Botany | |
|----------------------------------|--------|
| Total Jul 2010 to June 2011 | 54 209 |
| Total Jul 2011 to June 2012 | 56 239 |

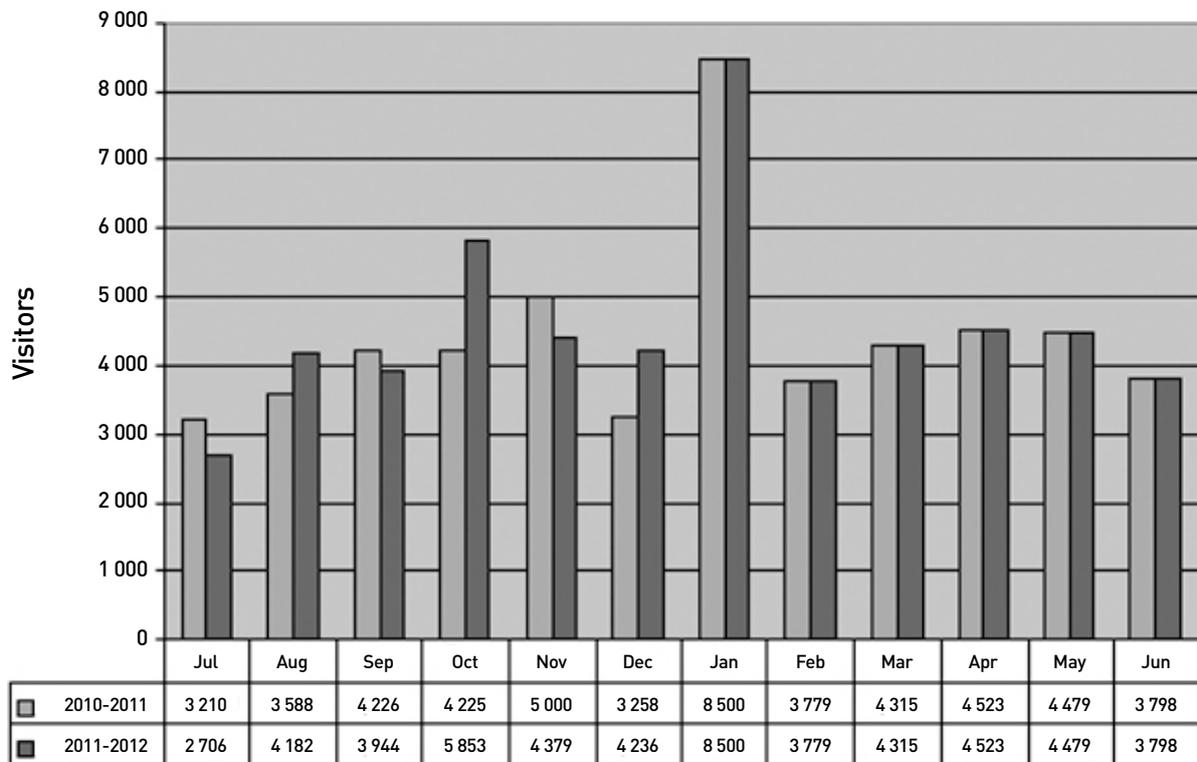
2. Hills Gardens

2.1. Mount Lofty Botanic Garden Attendance



| Mount Lofty Botanic Garden | |
|-----------------------------|---------|
| Total Jul 2010 to June 2011 | 167 130 |
| Total Jul 2011 to June 2012 | 170 245 |

2.2 Wittunga Botanic Garden Visitor Numbers



| Wittunga Botanic Garden | |
|----------------------------------|--------|
| Total Jul 2010 to June 2011 | 52 901 |
| Est. Total Jul 2011 to June 2012 | 54 694 |

Additional comments: 2010–2011 figures were used for part of the 2011–2012 year due to technical issues with the data counters.

Appendix 8:

Friends of the Botanic Gardens of Adelaide Inc.

Patrons

His Excellency Rear Admiral Kevin Scarce AC CSC RANR
Governor of South Australia and Mrs Scarce

Office Bearers

President: Mrs Helena Jenkinson
Senior Vice-President: Mr Bodo Jensen
Immediate Past President: Mrs Lesley Hawkins
Treasurer: Mrs Anne Bowman

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.

2011-2012 Program

July 2011 Story-Telling for Littlies
Botanical Art Workshop with Terry Napier
Gourd Workshop with Mary Findlay
Mount Lofty Botanic Garden (MLBG)
Plant Sale
Planet Ark Tree Day Walks

August 2011 General Meeting
MLBG Plant Sale
Gouache for Botanical Art Workshop
Storytelling for Littlies

September 2011 Newsletter mailout
Twilight Talk
Story-Telling for Littlies
Botanical Art Workshop with
Linda Catchlove
MLBG Plant Sale
Garden Guide Conference Brisbane

October 2011 Wittunga Botanic Garden Plant Sale
Wittunga Botanic Garden WaterWise Day
French Revues & Lunch
Botanical Art Workshop
Gazette mailout
Storytelling for Littlies
New Members Morning Tea

November 2011 Annual General Meeting
MLBG Plant Sale
Storytelling for Littlies

December 2011 FBGA Newsletter mailout
Card Workshop North Lodge
Christmas Lunch
Christmas Display North Lodge

January 2012 FBGA Gazette mailout
DVD "National Trust Gardens of Cornwall"
& Morning Tea

February 2012 FBGA General Meeting in Noel Lothian Hall
Tour of Festival Theatre & Lunch
"Gouache for for Botanical Artists"
Workshop

March 2012 FBGA Stall at ABC Car Park Caper
Palaeo Week Walks
Twilight Talk – Holly Kerr Forsyth
MLBG Plant Sale
Melbourne Garden Show & Tour
Easter Bonnet Exhibition with Wind in the
Willows Display
Beginners Watercolour Botanic Art Class

April 2012 FBGA Quiz Night
Woodcraft Exhibition
Government House Open Day Walks
Drawing Workshop with Gilbert Dashorst
Statues & Gates Walk & Lunch
Plants for the Pantry Guided Walks
MLBG Plant Sale

May 2012 Full Day Bus trip to Adelaide Hills
FBGA General Meeting in Lecture Theatre,
Goodman Bldg
MLBG Plant Sale
FBGA Stall at GAP Sales
History Week – Walks in the 3 Gardens by
Guides
History Week Exhibition in North Lodge

June 2012 Photographic Competition & Exhibition in
North Lodge
Garden Guides participation in World
Environment Day
FBGA Newsletter mailout
Large Format Black & White Illustration
Botanical Art Workshop
DVD Morning
Friends Games Day - Mahjong, Canasta,
Bridge, Scrabble
MLBG Plant Sale

General Meetings Speakers

| | |
|---------------|--|
| August 2011 | Tina Miljanovic – ATCO Heritage Rose Collection David Ruston – My Life with Roses |
| Nov 2011 | Richard Heathcote from Carrick Hill – The Royal House and Gardens of England |
| February 2012 | Tony Kanellos – Botanical Collections Tony Anderson – Plants of Nepal |
| May 2012 | Nick Milton – Kings Park Stephen Forbes – Why Botanic Gardens? |

Twilight Talks

| | |
|----------------|---|
| September 2011 | Bob Major – Ernest Giles – Explorer of the North West |
| March 2012 | Holly Kerr Forsyth |

Support provided to Botanic Gardens and State Herbarium

| | |
|--|--------------------|
| Parking | 1 608.22 |
| TV Stand | 1 466.83 |
| Gwen Thomas Bursary—Horticultural Staff Award | 8 000.00 |
| Bus tours of MLBG | 460.00 |
| Adelaide Botanic Gardens Bird brochure | 2 796.20 |
| Cycad | 11 000.00 |
| Guided walk Brochure | 734.00 |
| Sign at MLBG | 412.90 |
| Watering System MLBG | 1 185.36 |
| Advertising & Distribution of Botanic Gardens of Adelaide Publications | |
| Monthly Self-Guided Walk Trails in three Gardens | |
| World Environment Day - volunteers | |
| Total | \$26 672.41 |

FBGA Sub-Committees

The Botanical Art Group

Botanical Art Group Summary of Activities – Financial year 2011/2012

Workshops etc. 2011

1 x 2 day workshop with Melbourne Illustrator, Terry Napier as tutor. 2 & 3 July 2011
15 students: Profit \$890

1 x 2 day workshop with Gilbert Dashorst as tutor.
28 Aug & 11 Sept. 2011
8 students: Profit \$180

1 x Botanical Art Exhibition 29 Oct–13 Nov 2011
Raised total of \$3418 for the Friends. This included a raffle, donations for souvenir catalogues and commission from sold artworks (more than half of hanging works sold).

1 x 1 day workshop with Linda Catchlove as tutor.
26 Nov. 2011
15 students: Profit \$410

Workshops etc. 2012

1 x Beginners Watercolour Class
5x 2hr sessions, Cathy Veide as tutor.
24 March – 28 April
12 students: Profit \$270

1 x 2day workshop with Veronica Oborn as tutor.
9 & 10 June
13 students: \$930

1 x Advanced Watercolour Class 4 x 2 hrs,
Cathy Veide as tutor. 16 June – 14 July.
10 students: Class still in progress.

Purchases: eight textbooks for Botanical Art Group Library.
Average weekly attendance: For 2011 – 17.

Craft Group members under convenor Kym Bracco met each month at North Lodge. Handcrafted goods sold at the plant sales and events as well as used in fundraising raffles. A small **Handicraft Group** is also met monthly catering for another group of interested members.

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, the 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 now that restrictions have been lifted.

On the fourth Sunday of March, April, May, June, July, August, September and November monthly plant sales of propagated plants from the three Gardens have been held at Mount Lofty Botanic Garden. Plants were also provided for the Water Wise Day at Wittunga in October, and other FBGA stalls. A photographic sub-group records plants propagated by the Growing Group, the information to be incorporated in the Botanic Gardens of Adelaide database for use by both the Botanic Gardens of Adelaide and Growing Group volunteers. Using the Friends' digital camera, plant photos are available at the plant sale days.

As sales are advertised on the radio it is 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' as they;

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 2011–2012 there were 43 members of the Garden Guides. One guide suspended his membership for 12 months for further study and five trainees qualified as guides during the year. Attendance at the meetings averaged 35.

Monthly trails were distributed in the three Gardens:

- 1322 are used by the public at Wittunga Botanic Garden
- 6803 are used by the public at Adelaide Botanic Garden
- 3000 are used by the public at Mount Lofty Botanic Garden

The trails are also published on the Friends website.

Monthly meetings for continuing education of the Guides:

Guest Lecturers for the Garden Guides

| | |
|--------------|--|
| July 2011 | Katrina Nitschke – Garden of Health |
| August 2011 | Katrina Nitschke – Wetland Project |
| September 11 | Margaret Heath – Volunteering in Santos Museum of Economic Botany Helena Jenkinson/Jane Littleton – Brisbane Guide Conference |
| October 11 | Helen Milne – DuPont properties in Pennsylvania |
| November 11 | Dr Jeff Nicholas 'Founders of Adelaide' |
| December 11 | Christmas Meeting |

| | |
|-------------|---|
| January 12 | Bodo Jensen – Australian Native Orchids |
| February 12 | Dr Carolyn Ireland – Acacias and their friends |
| March 12 | Dr Peggy Rismiller – Goannas, echidnas – native cultivators |
| April 12 | Laurie Dixon – ABG 1950–1990 |
| May 12 | DVD Florilegium & Joan Gibbs – Grassy Woodlands |
| June 12 | Guides' AGM |

Free guided walks were provided in the Adelaide Garden except Christmas Days and Good Friday.

| | |
|-------------------------|---|
| Number of walks offered | 352 (12 days cancelled due to Heat Policy), |
| Total visitors | 2208 (South Australia 618, Interstate 496, Overseas 1094) |

Free guided walks were held in MLBG every Thursday

| | |
|-------------------------|---|
| Number of walks offered | 53 for 67 visitors (53 South Aust, 4 Interstate, 10 overseas) |
|-------------------------|---|

7 Booked walks for 50 visitors as well as 18 bus tours in MLBG

Special walks for Planet Ark, Palaeontology Week, History Week, 10 walks for 27 visitors.

| | |
|------------|--------------|
| Altogether | 504 visitors |
|------------|--------------|

Free guided walks are held at Wittunga every Tuesday August to end November.

18 walks for 30 visitors, six booked walks for 139 visitors and Special walks for Planet Ark Tree Day, Community Day Palaeontology and History Week for 82 visitors.

10 Guides took walks for visitors at Government House Open Day in March for over 100 people.

Altogether 4 080 visitors were taken for guided walks in the three Botanic Gardens of Adelaide.

The Guides also took part in World Environment Day.

27 Guides attended the Australasian Volunteer Garden Guide Conference in Brisbane in September 2011.

Guides also furthered their education through 5th Wednesday excursions:

- June 2011 Mt Compass forestry, sandmine
- November 2011 Gardens in Stirling
- February 2012 Christies Beach High 'Environment Learning Centre & Yunggallungalla Garden'
- May 2012 Bennett's Pottery & Littleton Cottage Garden.

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.

The Friends Office and the Herbarium have continued an arrangement regarding distribution of *Nature Revealed*, *Sturt Pea & Plants of Adelaide Plains and Hills*.

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 seven 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.

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 – Easter Bonnets – Photography – Winter-beanies – Tasting Australia – History of North Lodge – Paper-making – woodturning.

Workshops – Mahjong, Gourds, Lavender, Pressed flowers, Story-Telling for Littlies, Photography, Card-making.

The Friends aim to have North Lodge open for members and visitors every day.

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 SA Herb Society, U3A Groups, Mt Barker Garden Club, Probus clubs.

Hands on Hort

Beginning as a pilot program in August 2011 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 Car Park Caper & 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 Botanic Gardens Annual Visitor Survey. The President and representatives of the Friends have met regularly with the Minister for Sustainability, Environment and Conservation and his staff to update him on Friends' and Gardens activities. The President and Vice President are also members of the Adelaide Botanic Gardens 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 Adelaide Gardens (republished).
- Gazette is printed, A4, in full-colour four times per year.
- Newsletter is printed four 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.



Adelaide Botanic Garden

Board of the Botanic Gardens and State Herbarium

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Facsimile: +61 8 8222 9399



Botanic Gardens
of ADELAIDE



ADELAIDE
MOUNT LOFTY
WITTUNGA