



Royal
Botanic Garden
Edinburgh

Our Achievements

2013/14



About us

The Royal Botanic Garden Edinburgh is:

- A world renowned scientific botanic garden with over 220 staff and a wider team of over 400 associates, Volunteers and students
- Four magnificent Gardens containing 13,500 plant species supporting research, conservation and education as well as providing outstanding visitor attractions
- An internationally important Herbarium of 3 million preserved plant specimens and Scotland's national botanical Library and Archive
- A non-departmental public body sponsored and supported through Grant-in-Aid by the Scottish Government's Environment and Forestry Directorate (ENFOR)

Foreword

The Royal Botanic Garden Edinburgh is a world class institution, with remarkable expertise, internationally important collections and commitment to plant science and conservation. Over the past year all four of our Gardens have benefited from many exciting additions to their plant collections, and have attracted very favourable responses from our 787,185 visitors. The work of our scientists is highly respected in Scotland and worldwide, and our education programmes with universities and colleges, spanning from diploma to postgraduate level, stimulate the understanding of the conservation of plants and our natural environment.

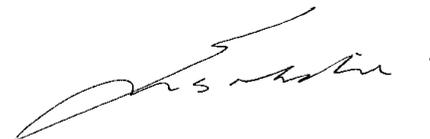
The reason why RBGE is so influential and effective is its extraordinary community of staff and Volunteers, whom we thank for their commitment and skill. We also thank our partners around the world, the Scottish Government and our many supporters, without whom our tasks of exploring, conserving and explaining the world of plants could not be achieved. Special thanks go to Professor Stephen Blackmore who retired in December 2013 as Regius Keeper, and whose legacy puts RBGE in

an excellent position to stay at the forefront of plant science, conservation and horticulture.

The coming year will see the past and future bumping into each other. The Botanic Cottage, where the great Professor John Hope (former Regius Keeper) taught in the 18th century, is to be rebuilt as a centre for community engagement and education. Capitalizing on the past and embracing the future are very much part of our culture, and put us in a good position to make the most of our opportunities and meet our future challenges.



Sir Muir Russell KCB FRSE, Chairman



Simon Milne MBE FRGS, Regius Keeper



Explore

Our science uses our internationally important collections to understand and characterise the diversity of plant life on earth

The Flora of Nepal Team have continued their production of **identification guides** for important plants of Nepal - the success of their work resulted in **audiences with the President** and the **Prime Minister of Nepal**

The first meeting of the **World Flora Online Council** was held at RBGE - launching the process of producing a **global online plant identification resource**

China is one of the most botanically diverse countries on earth. In 2014, the publication of the *Plants of China* volume marked the **completion of a 25-year collaborative project** to characterise the Chinese flora - providing a **vital resource** for plant identification to underpin conservation and sustainable use

A **new genus** of plants was discovered and described - *Billolivia* in the African Violet family. The genus is named in honour of two of the most **prolific botanists** of the 20th Century, the late Brian Laurence Burtt - known as Bill - and Olive Hilliard, who were both based at RBGE

Our genetics research showed that the **rate of plant evolution** in the Páramo biodiversity hotspot in **Colombia is faster than any other** on earth, making it an ideal system for **studying speciation and diversification**

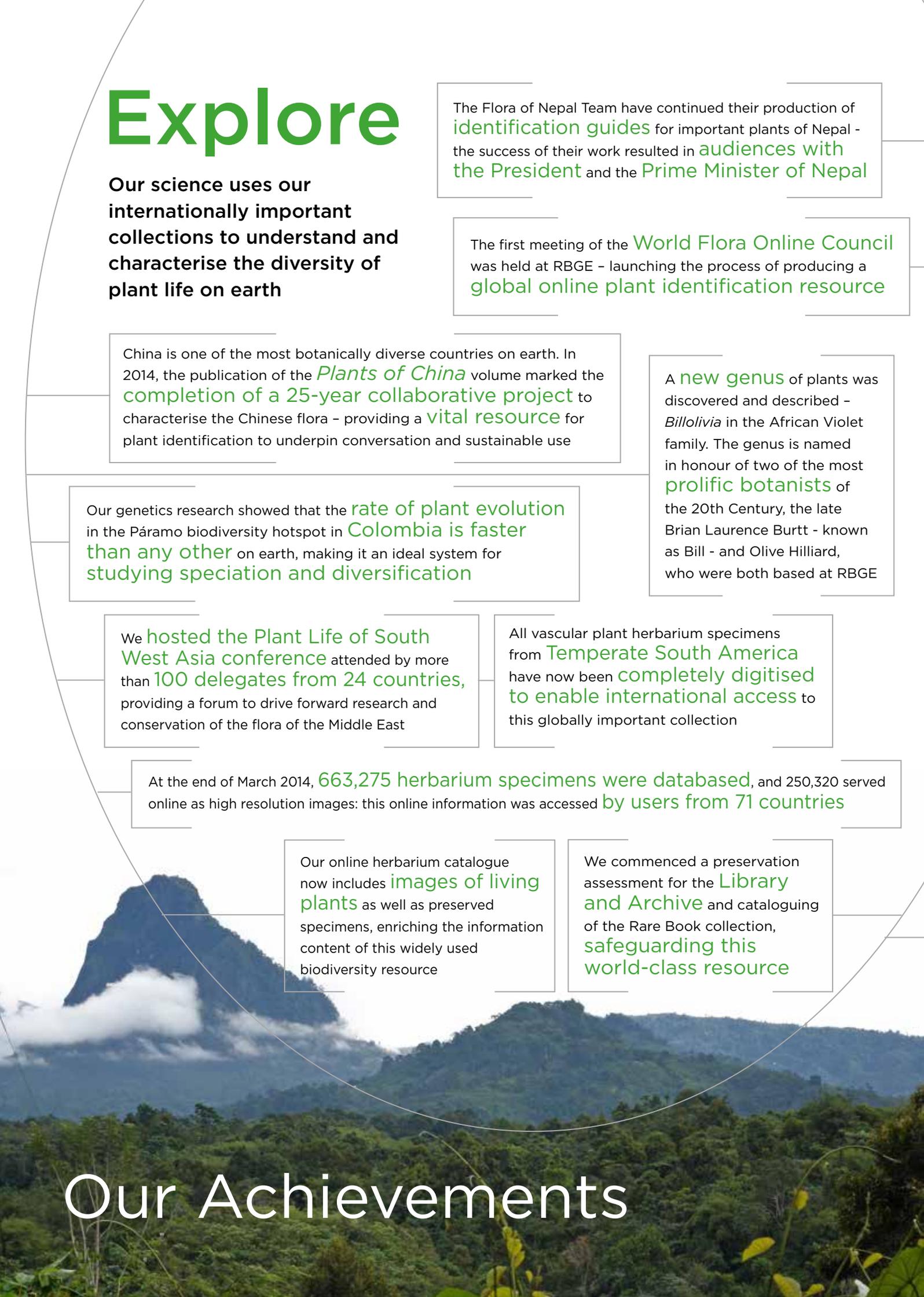
We **hosted the Plant Life of South West Asia conference** attended by more than **100 delegates from 24 countries**, providing a forum to drive forward research and conservation of the flora of the Middle East

All vascular plant herbarium specimens from **Temperate South America** have now been **completely digitised to enable international access** to this globally important collection

At the end of March 2014, **663,275 herbarium specimens were databased**, and 250,320 served online as high resolution images: this online information was accessed **by users from 71 countries**

Our online herbarium catalogue now includes **images of living plants** as well as preserved specimens, enriching the information content of this widely used biodiversity resource

We commenced a preservation assessment for the **Library and Archive** and cataloguing of the Rare Book collection, **safeguarding this world-class resource**



Our Achievements

Conserve

We undertake threat assessments and develop management solutions for wild plants, translating this research through to conservation policy and practical action

We have added another 1,966 accessions to our total Living Collection. About 59% of the Living Collection is of known wild-origin making it an **extremely valuable conservation and research resource**. We have also increased the number of **threatened Scottish species we have in cultivation** to an all-time high of 153 species.

We were part of the team that wrote the new International Union for the Conservation of Nature **Guidelines for Reintroductions and Other Conservation Translocations**; these guidelines were used as the basis for the Council of Europe's recommendation on 'Conservation Translocations under Changing Climatic Conditions', now **formal policy** for the **50 signatory governments** to the Bern Convention on the Conservation of European Wildlife and Natural Habitats

We established the first phase of the Yew Hedge Project at the Edinburgh Garden creating a **conservation hedge** representing the **global genetic diversity** of this economically and ecologically important species which is threatened in many countries

Our scientists were involved in the production of the 'Terrestrial Biodiversity Climate Change Impacts Report Card' summarising **impacts of climate change on UK biodiversity**

We produced a map of **hotspots of narrow endemic species** for the globally important flora of New Caledonia to assist in the **prioritisation of conservation** efforts in this biodiversity-rich but highly-threatened Pacific Ocean ecosystem

The '**Threatened Conifers of The World**' website was launched, providing authoritative information to support conservation of over **200 species** of conifer that are **currently threatened**

A five-year agreement was signed to **plant endangered conifers** within the City of Edinburgh council parks. This provides a **safe-house for species** that are threatened in the wild.

We produced a review on how global environmental change is likely to impact on the prevalence of rust-fungal pathogens to help **inform predictions on future plant disease outbreaks**



Explain

We provide training, education and public engagement to enthuse people about plants and environmental sustainability and to develop their skills and capacity to grow, identify and understand plants, their uses and conservation requirements

Visits to our four Gardens increased to 787,185, providing us with more opportunities to engage with bigger audiences in communicating our work

Our lightshow for the 150th anniversary of the Redwood Avenue at Benmore was attended by 1,500 visitors, celebrating these beautiful trees

Our Edinburgh Midsummer Late event featured a 'bio-blitz' which was broadcast live on BBC TV. The bio-blitz led to a better understanding of the wildlife that lives within our Garden and also provided an opportunity for the public to learn more about native biodiversity

We planted Scottish native plants from a wide range of habitats within the Rock Garden and added interpretation to highlight their diversity, uses and threats

RBGE led a Talking Science programme focused on exploring the science of trees and gardens throughout Scotland involving 11 partners at 21 venues and 35 events attracting an audience of 20,685

Inverleith House's spring programme featured nature printed books from the RBGE Library and Archive, and new work by Ciara Philips, nominated for the 2014 Turner Prize

We were a key partner in VisitScotland's Year of Natural Scotland promoting Scotland's biodiversity, landscape, and its natural and cultural heritage to the tourism market

Dawyck hosted Hard Rain, an exhibition communicating the environmental and societal impacts of climate change

We coordinated the Moving Forward from ash dieback exhibition, shown at 37 venues around Scotland on behalf of the Scottish Tree Health Advisory Group, providing information on ash dieback and the steps people can take to reduce its spread

Edinburgh hosted Sky's Rainforest Rescue Dome, attracting 6,000 visitors and generating £10,000 of income for the Garden

We improved accessibility at all four Gardens, raising over £30,000 through donations to the Access for All appeal and helping us engage with wider audiences at all of our sites



We provided **analytical training** and **laboratory support** for 75 individuals from **21 countries**, including established academics, students and earlier career researchers, through to high school children on work placements

The first cohort of students undertook the **RBGE Diploma in Garden History**

We expanded our **schools outreach** through continuing Professional Development to **train teachers** for the Curriculum for Excellence

Our **Schools Weeks** at the Regional Gardens attracted around 200 pupils

Our **Certificate in Practical Horticulture** is now taught at **eight venues** throughout Scotland, the wider UK and overseas

PropaGate Learning, our **new online learning environment**, became a key tool, with over 200 students **from Leith to Chile** using it in its first year alone

Our **apprenticeship scheme** ran at Edinburgh for its third year, providing work-place training to the **highest standards** of professional horticultural excellence

Our four Gardens hosted horticultural students on **work experience** - Logan hosted 20 students from **10 countries** and Benmore 14 students from **4 countries**

Scientists receiving awards for their biodiversity work included **MBEs for Heather McHaffie and Martin Gardner**

Five Volunteers were given certificates recognising **10 years of dedicated service** and marking our gratitude to our **Volunteer team**



Our Gardens

New capital projects have enhanced the Gardens, our visitor welcome and reduced our carbon emissions:

Edinburgh

Funding for the historic Botanic Cottage was secured and a masterplan to redevelop the Demonstration Garden completed. Planning work continued on a new glasshouse in the Nursery. Edinburgh achieved silver standard under the Green Tourism Business Scheme and 5 star Quality Assurance status by VisitScotland in 2013/14.

Dawyck

A micro hydro scheme was built at Dawyck which, along with the existing biomass boiler, sedum roof, sustainably built Visitor Centre and own water supply make it the first carbon neutral botanic garden in the UK. Dawyck was awarded the silver standard under the Green Tourism Business Scheme and retained its 5 star Quality Assurance

Benmore

A garden shelter based on traditional designs in Bhutan was constructed in the Bhutanese Glade and three Chortens were also built in that area. The historically important Golden Gates were restored to their former glory and are ready for installation. A new shelter, based on Chilean designs, has been designed for the top of the Chilean Rainforest, to be formally opened in 2015.

Logan

A new Victorian-style conservatory was constructed for South African and Oceanic island plants. It is powered by air source heat pumps which are in turn powered by photo voltaic cells, making it the first Glasshouse of its type to be heated purely by green energy sources in the UK. Logan achieved gold standard under the Green Tourism Business Scheme and retained its 5 star Quality Assurance status by VisitScotland.

Our Funders

Donors to the Botanic Cottage Project: Heritage Lottery Fund, The Binks Trust, Cruden Foundation, Dalrymple Donaldson Fund, Dunard Fund, The Edina Trust, The Gannochy Trust, The Garfield Weston Foundation, The Magdalene Sharp Erskine Dunimarle Trust, Mrs K M F Maxwell-Stuart's Charitable Trust, The Robertson Trust, The Sir James Miller Edinburgh Trust, The Steel Charitable Trust, The Thistledown Trust, Wellcome Trust and The Wolfson Foundation.

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Thanks to The Monument Trust, Alitex and Solway Heritage, **supporters of the Logan Conservatory.**

Thanks to Creative Scotland, The Henry Moore Foundation, Gagosian Gallery, Musa Mayer, The Modern Institute/Toby Webster Ltd, McKee Gallery, anCnoc, **supporters of Inverleith House.**





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Can be downloaded at

[http://www.rbge.org.uk/
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