

INTRODUCTION

The 5th Global Botanic Gardens Congress was held at Dunedin Botanic Garden, New Zealand in October 2013. Delegates from around the globe reviewed and discussed progress towards the aims and objectives of the International Agenda for Botanic Gardens in Conservation and the Global Strategy for Plant Conservation. A wide range of plenary keynote addresses, symposia and workshops on climate change, conservation, restoration, plant collections management, social relevance, industry innovation and education were presented. There is no doubt that botanic gardens are achieving more for plant conservation than ever before through partnership working and effectively integrating horticultural practice with scientific knowledge and educational outreach. While it was encouraging to hear the success stories it is also the case that there is still a mountain to climb in reversing biodiversity loss and this will be harder to achieve if botanic garden funding continues to be cut, as appears to be the case in many countries. A further worrying trend articulated by many speakers is the decline in the number of young people taking up a career in horticulture as it is now well recognised that horticultural skills are a vital ingredient in plant conservation. The Congress was excellently planned and managed and Alan Matchett, Dunedin's Director, and his staff along with Sara Oldfield and the staff of Botanic Gardens Conservation International (BGCI) are to be congratulated.

I am delighted that one of the plenary speakers at the Congress agreed to write the Guest Essay for this volume. Scot Medbury, President of Brooklyn Botanic Garden (BBG), describes the important role that his garden is playing in what he describes as the 'ultra urban' environment of the metropolitan area of New York. Since it was established 103 years ago BBG has placed public engagement with the world of plants at the centre of its priorities and it continues to run an incredible range of activities for all ages.

Prior to the Congress I had the opportunity to help deliver a BGCI training programme for staff from botanic gardens in South East Asia which was held at Auckland Botanic Garden. I was very impressed with the quality of the Garden and its programmes of events and education. Of particular interest to me, as it was my first visit to New Zealand, were the displays of native plants which were cultivated and interpreted to a very high standard. I am particularly pleased that Jack Hobbs, the Garden's Manager, and Rebecca Stanley, Curator, our hosts for the training programme, have highlighted the Garden and its wonderful native collections in this issue's Garden Profile.

The Student Project has been adapted from the Specialist Project submitted by Kasia Goral, an HND Horticulture and Plantsmanship student at the Royal Botanic Garden Edinburgh (RBGE). Kasia chose to review the range of interpretation on Target 8 of the Global Strategy for Plant Conservation (GSPC) on display at a number of British gardens. Given the importance of the GSPC in general, and particularly of Target 8 in botanic gardens, this is a timely review of standards of interpretation and the way in which they convey the importance of this target to the public.

One of the main reasons for establishing *Sibbaldia* was to encourage botanic garden staff to record their knowledge of the cultivation of plants. It is particularly pleasing, therefore, to publish four accounts in this issue. Bob Ursem and colleagues from the Botanic Garden of Delft University of Technology have been trialling cultivation techniques for members of the family Myristicaceae, which includes nutmegs, as they believe that due to chemicals and compounds present in these plants their potential value to science is not fully known. It is generally recognised that plants in this family are particularly difficult to propagate and cultivate in *ex situ* conditions but the team from Delft have been making significant progress both with ectomycorrhizal associations and with different mixes of hormone rooting agents and fungicides. Ensoll, Hughes and Gardner from RBGE discuss the cultivation of *Valdivia gayana*, a little known herb from southern Chile, and Robert Unwin, also from RBGE, describes the collection and curation of *Trillium* species. Finally, Carl Berthold explains how he investigated ways to improve the germination of *Aloe polyphylla*.

The UK Overseas Territories include a diverse group of territories ranging from places such as Gibraltar, the Cayman Islands and Bermuda to Pitcairn Island, the British Indian Ocean Territory and the Falkland Islands. The 14 territories include an interesting array of biodiversity and a range of conservation challenges. In their paper, Corcoran, Hamilton and Clubbe, from the Royal Botanic Gardens, Kew, describe their work on developing horticultural protocols for threatened plants from the Caribbean and Falkland Islands, work that elegantly brings together practical horticultural activity underpinned by sound science and supported by education, partnership working and community involvement.

Most botanic gardens attempt to grow a wide range of plants, usually far more than would occur naturally on that site. They do this by manipulating the microclimate to create specific niches conducive to growing plants which require particular environmental conditions. Trees create shade and shelter and their inclusion in a garden landscape is just one way of creating the habitats required to grow other plants, as explained by Ericka Witcher, Collections Supervisor at Montgomery Botanical Center, in her paper on the subject. While Witcher describes the cultivation of trees to create habitats for other plants, Suzanne Martin looks at the impacts and lessons from extreme weather events at RBGE for climate change adaptation in the horticulture sector. This is an issue that we cannot ignore but with forward planning, both in the hard and soft landscape, measures can be put into place to mitigate the impact of such events.

Most papers in *Sibbaldia* describe research and activities taking place within botanic gardens, but Kate Barnard discusses a project run in conjunction with the National Botanic Garden of Wales monitoring populations of *Saxifraga cespitosa* in Scotland. While this has involved extensive field work in remote parts of Scotland, her project has its roots firmly embedded in the GSPC and RBGE's work on native species. Finally, Salma Talhouk questions whether Lebanon and other countries in the Middle East should try to sustain the Western model of botanic gardens and suggests an imaginative

alternative in what she calls Ancillary Botanic Gardens which, she argues, will also empower local contributions to plant conservation.

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