

## INTRODUCTION

I was delighted when Sara Oldfield, Secretary General of Botanic Gardens Conservation International (BGCI), agreed to write the *Sibbaldia* Guest Essay. No other organisation has done more to champion the importance of botanic gardens, improve communication and networking between them, raise standards within them, explain the value of plant conservation and provide leadership in how that might be achieved. Sara, who had an impressive career in conservation organisations before joining BGCI, notably as Global Programmes Director at Fauna & Flora International, is the third Secretary General of BGCI and has been in post since 2005. The previous Secretary Generals are Professor Vernon Heywood, who wrote the Guest Essay in *Sibbaldia* No. 7 (Heywood, 2009), and Dr Peter Wyse Jackson, who left BGCI in 2005 to become Director of the National Botanic Gardens of Ireland in Glasnevin, Dublin and has been President of Missouri Botanical Garden since 2010. In her essay Sara reports on the success of Target 8 of the Global Strategy for Plant Conservation (GSPC) and relates this to the recent publication of the *Red List of Rhododendrons* (Gibbs, Chamberlain & Argent, 2011) to show that, working in partnership and supported with training, botanic gardens can, and should, consider scaling up their conservation activities to start tackling whole habitat restorations rather than just those of single species. She reports from a meeting held in New York in March 2011 (a follow-up to a meeting held at Royal Botanic Garden Kew in 2008) where the issue of botanic garden involvement in whole habitat restoration was discussed.

Kumpula Botanic Garden in Helsinki, Finland is the focus for the Botanic Garden Profile. Leif Schulman and Maria Hällfors describe the origin and development of this important new botanic garden, which was first opened to the public during the Fifth European Botanic Gardens Congress, EuroGard V, in June 2009, and explain its ethos and the interesting design principles on which it was founded. The third paper in the now traditional start to *Sibbaldia* is the Student Project where we give a student who has submitted an outstanding final-year project the opportunity to have it professionally published. This time Susan Foreman from the National Botanic Gardens of Ireland has published a reduced version of her final-year project, Review and verification of the birch collections at the National Botanic Gardens of Ireland, which was an excellent account of a botanic garden curatorial survey covering the stocktaking, verification, sampling, recording and analysis of the *Betula* collection at Glasnevin.

Plant cultivation is, and always will be, at the heart of *Sibbaldia* as it is the intricate propagation and cultivation details, so vital for long-term plant conservation, that we are keen to solicit from horticulturists and make widely available through publication. This issue contains four such papers plus a technical report on the possible implications of types of labelling on plant health. Gunnar Øvstebø, Alex Twyford and Tina Westerlund describe an interesting project experimenting with growing dry habitat ferns from spores taken from herbarium specimens – a technique that might have useful conservation implications for the future. Michael Calonje, Judy Kay and Patrick Griffith

from the Montgomery Botanical Center, Miami, Florida present a detailed paper on seed propagation of cycads, a procedure that can drastically reduce the harvesting of wild plants, replacing them with commercially grown plants. In their paper they have drawn heavily on their own experience but have also cross-referenced extensively with other workers and have shown that a sound understanding of plant physiology can contribute directly to practical conservation. In their paper on *Amborella trichopoda* Bernadette Große-Veldmann, Nadja Korotkova, Bernhard Reinken, Wolfram Lobin and Wilhelm Barthlott from the University of Bonn describe the cultivation of “this most ancestral angiosperm” from New Caledonia with the intention that better knowledge of its cultivation will promote its conservation in *ex situ* collections. In their paper on growing a conservation collection of *Sorbus pseudomeinichii* – the Catacol whitebeam – Heather McHaffie, Natacha Frachon and Ashley Robertson describe the process of bringing this rare British native plant into cultivation, despite numerous practical difficulties. Finally, Paul Bradley and Robert Cubey present a paper based on a student report investigating the observation that branches holding plant labels die more frequently than branches without labels. The authors have attempted to analyse this observation and have also contacted other gardens to enquire about their experiences.

*Sibbaldia* No. 9 has a strong European theme and, in addition to the Garden Profile featuring a Finnish botanic garden and the paper on *Amborella trichopoda*, two further papers continue this theme, one from Paris and the other from the Baltic. Denis Larpin, Eric Joly and Maïté Delmas from the Muséum national d’Histoire naturelle and Jardin des Plantes, Paris describe the challenges and opportunities involved in the development of a glasshouse landscape displaying plants from New Caledonia. Having seen the early stages of this development myself it was clear that the project was being undertaken at a very high level of specification, with careful attention being paid to the quality of every element from planning and plant procurement to site preparation and interpretation. The paper details the planning, development and execution of the project. The second paper describes the development of a new network of botanic gardens covering the Baltic Sea region and has been submitted by Bengt Rosén and Bengt Jonsell. This new and very enthusiastic network was established in 2008 with funding from the Swedish International Development Agency and is currently composed of 22 gardens in 10 countries. The paper describes the aspirations of the network and its achievements to date.

Environmental issues also feature strongly in this issue, with two papers submitted by RBGE staff. In the first Kate Hughes, Kerstin Price and Ian Lawrie describe how they developed a Carbon Management Plan for RBGE, something that all botanic gardens should try to achieve. The Plan includes a tool for recording fuel usage and therefore carbon emissions, targets for reductions and a list of capital works required to reach the target with outline specifications and costings. The second paper, submitted by Graham Stewart, Curator at Dawyck Botanic Garden, describes the process of putting Dawyck forward for a Green Tourism Award. His personal observations of the process and practical input into achieving the award will be useful for other gardens considering similar schemes.

Geoffrey Harper and Elizabeth Rogers present a paper developed from RBGE's phenology programme entitled 'Flowering curves and the summer-gap mystery'. Results from year-round weekly monitoring of 93 taxa at RBGE are shown in the form of flowering curves which are provisionally grouped into classes along with hypotheses suggested to explain the different patterns. They draw attention to a prominent 'summer gap' in flowering in some species and discuss possible explanations for it. The final paper, written by Graham Hardy, is of particular historic interest. It is not a subject that is usually covered in this journal but the editors decided that the material in question, Brown and McNab's North American Tour of 1834, based on McNab's diaries, was of such historic interest that it should be published. In doing so, we hope that others will appreciate the value of this record and that it might lead to the publication of this diary in a more formal, and more widely available, format than *Sibbaldia*.

While previous issues of *Sibbaldia* have undergone careful editing, professional proofreading and reference checking this is the first to have been comprehensively peer reviewed. Each paper has been subjected to review with comments and questions referred back to authors for correction and improvement of their papers. We hope that readers will have increased confidence in the quality and integrity of the papers and that authors will gain satisfaction from knowing that their papers have been through a rigorous peer review process and can be listed, quoted and cited as such.

*Sibbaldia* No. 10 will incorporate an index to Nos 6–10 and every fifth issue from then on will include an index to the previous five volumes. A separately bound index covering Nos 1–5 is available and can be ordered from Publications, Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh EH3 5LR, or by email to pps@rbge.org.uk

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#### REFERENCES

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