

W-14 High performance living collections for the 21st century: Data, data analysis & data infrastructure

S.F. Brockington¹, A. Cano¹, R. Sucher², and A. Wyatt²

¹ University of Cambridge, UK

² Missouri Botanic Garden, USA

Duration: 110 minutes

Target audience: Horticulturalists, Curators, Collection Managers, Database managers, Directors

Objectives:

- Participants will understand the main challenges we face in terms of data management as applied to living collections.
- Participants will in particular understand the issues created by absence of data standards, closed data cultures, and fragmented ecosystems.
- Participants will learn how to think about collections management in terms of data analysis and recognise the data signature of good collections management.
- Participants will learn about global data repositories and how to harness these data to drive collections strategies.
- Participants will be introduced to the BGsmartR platform for collections data analysis, and learn how to upload data, and how to interpret data analysis outputs.
- Participants will learn about tools for climate change and niche analysis and how to use these approaches to rationalise acquisition strategies.

Abstract: The *ex-situ* living collections of botanic gardens are distinct from other horticultural landscapes in being "documented", in other words they are defined by the data that describe the collections. Consequently, *ex-situ* living collections individually and globally amass vast quantities of data, as they seek to track and document the transient flow of biodiversity within and through networked *ex-situ* collections. These data, associated data infrastructures and global data repositories are crucial for the individual management of living collections and for the collective management of the world's meta-collections. However, our collective management of data is generally poor and lacking in data standards, and we collectively suffer from a fragmented data ecosystem, and a closed data culture. We also tend not use our data to analyse the performance of our collection management practices, and have lacked the tools and approaches to do so. In this workshop we will collectively discuss the issues we face, and hear from practitioners who have developed future-looking tools to deliver rational and data-informed approaches to collections management and acquisition.