Developing a tool for ex situ gap analysis and metacollection management

J. Linsky^{1,*}, D. Carver², J. Gore¹, S. Phipps¹, E.E.D. Coffey¹, S. Alvarez-Clare³, A. Byrne³, K. Good³, V. Handley⁴, C.K. Khoury⁵, and A. Meyer⁶

Keywords: botanic gardens, conservation, ex situ, mapping, metacollections,

Botanic gardens, as museums of living plant collections, hold great value for biodiversity conservation, ecological restoration, research, education, and outreach. Garden staff are increasingly working to understand and expand the conservation value of collections through assessment and curation while also widening the impact of those collections through collaboration with other gardens, museums, community groups, and conservation organisations. Methodologies for 'conservation gap analysis' of living collections have been developed over the past decade by a series of botanic gardens in partnership with Botanic Gardens Conservation International US, and in collaboration with international and national agricultural research organisations. These methods have been used to assess collections of various plant groups including crop wild relatives and tree taxa. In particular, gap analysis methodologies have been used within the Global Conservation Consortia (GCC) initiative to support the growing practice of metacollection development. These methodologies have created a workflow for gardens to assess collections and prioritise curation decisions for threatened plant species. However, there are limitations to the accessibility of these methodologies by gardens with smaller conservation programs and limited staff resources. Therefore, members of the GCC for Magnolia, Oak, and Cycads, in collaboration with other botanic garden partners have joined together in an Institute of Museum and Library Services (IMLS) funded project entitled 'Growing Metacollections and Strengthening Gardens for a Conservation Consortia Future' to create accessible tools and training on conservation gap analysis methodologies. The main goal of this project is to empower a broader garden audience to engage in the consortia framework and use tools to effectively and efficiently manage valuable living collections. As part of this project, a new ex situ gap analysis web mapping application will be developed which provides an easy to use platform for geographical and ecological assessment of collections at the accession level. Progress on the tool's development, experiences from initial training, feedback sessions and news about upcoming training opportunities will be presented.

¹Atlanta Botanical Garden, Atlanta, Georgia, United States of America

²Colorado State University, Fort Collins, Colorado, United States of America

³The Morton Arboretum, Lisle, Illinois, United States of America

⁴Montgomery Botanical Center, Coral Gables, Florida, United States of America

⁵San Diego Botanic Garden, San Diego, California, United States of America

⁶Botanic Gardens Conservation International-US, San Marino, California, United States of America

^{*}Corresponding author email: jlinsky@atlantabg.org