

Global Genome Initiative for
Gardens is an international
partnership dedicated to
collecting and preserving
genome quality tissues for
all species of plants on Earth



Adenanthos sericeus herbarium voucher. All photos in this issue courtesy of Inala Jurassic Garden

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## **GGI-Gardens Newsletter**

### Issue 15 | April 2024

News, highlights & opportunities from the botanic garden community

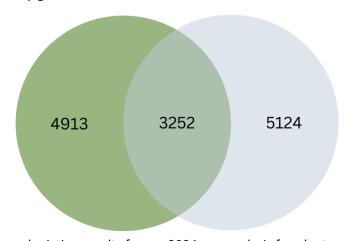


### **Botanic Gardens Making a Difference**

This spring, GGI-Gardens is excited to highlight preliminary results from the 2023 GGI-Gardens Partner Awards Program. These awards were made possible thanks to generous funding from the United States Botanic Garden (USBG) and administered with support from Botanic Gardens Conservation International (BGCI and BGCI-US). In total, ten botanic gardens received funding in 2023. Four of these awardees were granted extensions to complete their projects, and last month we received final reports from a majority of the awardees.

To date, the 2023 GGI-Gardens Partner Awards have supported the collection of 88 families (3 to GGBN) and 137 genera (90 new to GGBN). Once all final reports are received, we will compile and distribute a summary of the results from this cycle of the awards program – stay tuned!

Since 2020, the GGI-Gardens Partner Awards have supported the collection of more than 3,000 plant genera, including 25% of those genera previously not preserved in any genomic biobank!



A Venn diagram depicting results from a 2024 gap analysis for plant genera absent from the Global Genome Biodiversity Network (GGBN) database (green) and present in botanic gardens (grey).

The 2023 GGI-Gardens
Partnership enabled Inala
Jurassic Garden to
contribute 26 genera (18
new to GGBN) and 14
families (1 new to GGBN)
to the Global Genome
Biodiversity Network





Top right: Catherine Young at the Tasmanian Herbarium preparing Inala Jurassic Garden voucher specimens Top left: *Bauera rubioides* herbarium voucher

Bottom left: Genome samples in silica gel for long term storage at Inala Jurassic Garden

### **GGI-Gardens Award Partner Profile**



### **Inala Jurassic Garden**

The Inala Jurassic Garden (IJG) on Bruny Island in Tasmania is a living collection of around 700 plant species from ancient lineages with Gondwanan connections. Many of these are now threatened by the effects of climate change (e.g. changed fire regimes and weather patterns) and human influence (e.g. overharvesting). The emphasis of the garden has expanded since its inception to include conservation and propagation of threatened species. IJG now collaborates with other botanic gardens including Bedgebury Pinetum and Kew-Wakehurst in the UK and Royal Botanic Gardens Victoria-Cranbourne and Botanic Gardens of Sydney in Australia on a range of projects, including propagation of critically-endangered species, and as a repository for *ex-situ* global meta-collection projects.

In March 2023, IJG was the only Australian garden recipient to be awarded one of ten global GGI-Gardens Partner Awards to provide genetic material from their living collection not previously represented in Global Genome Biodiversity Network (GGBN) biorepositories. Genetic samples and herbarium voucher specimens were provided from 27 species within 26 genera in 14 different families. Seven threatened species, including three listed as critically endangered and three endangered species in the International Union for Conservation of Nature (IUCN) Red List, were included in the project. These samples will be stored in perpetuity for use by researchers from around the globe.



Dr. Andrew Hingston preparing genome samples at Inala Jurassic Garden

### **Upcoming Events**

# Conservation Innovation: Harnessing Technology to Advance Rare Plant Conservation

Center for Plant Conservation 2–3 May, 2024 San Diego Zoo and Safari Park, San Diego, CA USA

## Rooted in Resilience: A Sustainable Future for Gardens

American Public Garden Association 24-27 June, 2024 Boston Park Plaza, Boston, MA USA

## XX International Botanical Congress

International Association for Botanical and Mycological Societies 21-27 July, 2024 IFEMA MADRID, Madrid, Spain

### Botanic Gardens: People and Plants for a Sustainable Future

Global Botanic Gardens Congress, BGCI 6-9 August, 2024 Suntec Convention Singapore, Singapore

### Inala Jurassic Garden continued...

"The Inala Jurassic Garden is proud to help build capacity and provide resources for global plant biodiversity genome research and support conservation and preservation programs" said Dr. Tonia Cochran, the garden's owner, Curator and Collection Manager. "It is critical to preserve genome material, especially from threatened species and this project aligns well with our other conservation-based work we undertake through our not-for-profit organisation the Inala Nature Foundation and our ecotourism enterprise Inala Nature Tours". Tonia and her team at IJG are very thankful for the support of the GGI-Gardens Initiative, the United States Botanic Garden and Botanic Gardens Conservation International (BGCI) and recognise the value of this award program.



Christine Howells from the Tasmanian Herbarium filing the GGI-Gardens voucher collection

### **Interested in joining GGI-Gardens?**

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