

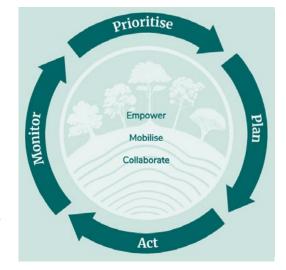
LETTER FROM PAUL

Welcome to BGCI's 2022 Year in Review!

I hope you enjoy this recap of our year, which for BGCI staff was a year of re-emergence from the Covid chrysalis, perhaps not yet complete but certainly 2022 provided more than just a glimpse of the light at the end of the tunnel. My first overseas forays were to two regional botanic garden meetings - EuroGard in Hungary in May (page 11) and then the African Botanic Gardens Network meeting in Zambia in July (page 11). Both provided wonderful opportunities to reconnect in person with old and new friends alike. Highlights included the wonderful evening meal hosted by Antal and his family at their farm in southern Hungary where everything we ate and drank was produced within a radius of a few kilometres; listening to a string quartet made up of Vince's family members in Budapest; meeting a giraffe in the carpark of the conference centre in Livingstone; and getting drenched in the spray of the Victoria Falls. Then, in September, I joined many other BGCI and BGANZ members at the 7th Global Botanic Gardens Congress in Melbourne, Australia, where we received immaculate hospitality and kindness.

Attending these meetings was not only an extremely efficient way to meet hundreds of botanic garden people from all over the world, it was also a reaffirmation of the importance of what we do. In a world where any kind of physical contact had suddenly become dangerous, we were quick to adapt to life on Zoom and Teams and even persuaded ourselves that this was a better, more efficient approach to business. Perhaps it is, but life (and business) is built on relationships not simply communication and we were missing out on some essential elements of relationship-building and maintenance. While online meetings do some things really well, including imparting and receiving certain kinds of information, they are not nearly so good at things like sharing body language, non-visual cues, informal information exchange and partying!

BGCI's 7th Global Botanic Garden Congress was a great success (see page 4). The figures tell us that more than 500 delegates from 36 countries attended sessions on six different themes comprising 10 plenaries, 83 presentations, 12 symposia, 9 workshops, 5 panel discussions, and 46 posters. That is a lot of information, which made for an interesting and affirming week. However, it was the side conversations, the evening meals, the cultural events, the dancing and even the singing (!) which reminded me of what a great community we belong to. This is a privilege that goes beyond work. Nevertheless, work was very much involved, and much of that is highlighted in this Review. 2022 was a big year for BGCI in the development of new data tools (pages 5). We made significant progress in developing the next generation versions of GardenSearch and PlantSearch (soon to be launched) but also developed, tested and launched two online tools that enable the responsible exchange of plant material and data. These are Index Seminum and PlantShare, both of which can now be accessed via BGCI's website. Both are open to all bona fide botanical



institutions, including botanic gardens, universities, forestry research institutes, arboreta and so on. These platforms are not available to individuals or the private sector. The Index Seminum tool has been developed together with the Index Seminum user community, and is primarily designed for the uploading and sharing of annual seed catalogues. PlantShare enables more ad hoc material exchange.

ad noc material exchange, and is not confined to seeds. Both tools require levels of provenance data that will ensure that suppliers and recipients of material know exactly what is being exchanged and the regulations that apply to that specific material. Both tools are supported by peer-reviewed certification in Access and Benefit Sharing, biosecurity

and CITES compliance, should institutions need this. In addition to PlantShare and Index Seminum, BGCI worked closely with the Royal Botanic Gardens, Victoria and Climate Change Alliance of Botanic Gardens in 2022 to develop the <u>Climate Assessment Tool</u>, which provides guidance on the likely suitability of tree taxa to the predicted future climate scenarios of a selected botanic garden or location.

One of our most important measures of success is the funding we disburse to members and partners. In 2022, that figure amounted to ca. £1.9 million... The data behind the Climate Assessment Tool includes information emanating from the Global Tree Assessment (GTA) – the largest red listing project ever undertaken. The GTA is the crucial first element of BGCI's tree conservation wheel, comprising the prioritise, plan, act and monitor actions. More details on the Global Tree Assessment process and downstream impacts are available in the special edition of Plants, People Planet described on page 5.

2022 was also a successful year

for BGCI in terms of funds raised and disbursed. One of our most important measures of success is the funding we disburse to members and partners. In 2022, that figure amounted to ca. £1.9 million, double the average annual funding disbursed by BGCI between 2015 and 2020. Our aim is to continue to grow both the 'restricted' project funding we raise and disburse for

plant conservation and education activities, and the more flexible funding we provide through the Global Botanic Garden Fund (page 14).

2022 had its lows as well as its highs. Covid-19 continued to affect many gardens, communities and individuals, and extreme weather events also seem to be the norm in recent times. BGCI's Disaster Fund has never been

more needed, and a major effort in 2022 was directed towards supporting Ukrainian gardens affected by the war there (see page 16). Thanks to your generosity, we raised US\$100,000, all of which has now been sent to support gardens in Ukraine in their important work providing sanctuary for plants and people.

The truth is we are stronger together, and in a world where division seems to be on the rise, botanic gardens will always be places of peace and progress.

Sincerely, Paul Smith

BGCI's Secretary General

Big Stories of 2022

7th Global Botanic Gardens Congress

BGCI's 7th Global Botanic Gardens Congress (7GBGC) was held from 25–29 September, hosted by the Royal Botanic Gardens Victoria in Melbourne, Australia. The highly successful event attracted 500 delegates from 36 countries.

Having been delayed for 18 months due to COVID-19 and for the first time incorporating a special Education and Engagement Day, the Congress proved to be a very special event, bringing together botanic garden representatives from every continent (except Antarctica) to share experiences, renew friendships and develop new partnerships.

The Education and Engagement Day provided an opportunity for over 80 botanic garden educators from around the world to assemble in the beautiful setting of the Royal Botanic Gardens, Victoria for a day of practical workshops and hands-on activities.

The rest of the Congress focused on six key themes, covering plant conservation, climate change, greener cities, living in a post-Covid world, global conversations and impactful engagement and education. Conservation horticulture received a special focus with a well-attended workshop discussing how to mainstream, recognise and reward specialist conservation horticulture.

During the Congress, a number of new tools to support the work of botanic gardens were launched – including the BGCI's plant exchange platforms – Index Seminum and PlantShare – and the Climate Assessment Tool.

The Congress concluded with a panel discussion, hosted by the well-known Australian landscape architect and TV presenter Costa Georgiadis, where a number of participants reflected on their impressions and shared their personal high-points of the Congress.

Key issues emerging during the Congress were captured in a set of concluding slides.



View the concluding slides



Recognising the importance of engaging and supporting younger generations, and with the generous support of the Royal Horticultural Society (UK), the Stanley Smith Foundation and the Sylvia Scholarship Fund, BGCI provided bursaries that allowed 16 young botanic garden staff to attend the Congress. They all found this a unique and hugely beneficial experience, with one saying:

"What a fantastic opportunity to broaden my understanding on global issues and opportunities facing the botanic garden community."

While another said the Congress was

"An all-consuming week; full of information, challenges, ideas, opportunity, and the supportive camaraderie of fellow practitioners"

The final act of the Congress was the announcement that Singapore Botanic Gardens will be the host of the 8th Global Botanic Gardens Congress to be held in 2024.



Find out more and read the Congress conclusions

Plants, People, Planet Research Papers

Trees are of exceptional ecological importance, playing a major functional role in the world's ecosystems, while also supporting many other plants, animals and fungi. The conservation status of these tree species is therefore of key importance to planning management strategies and prioritising actions. With the publication of the results from the <u>Global Tree Assessment</u>, we now have knowledge about the threat level for tree species globally.

A special issue of <u>Plants, People, Planet</u>, with guest editors Malin Rivers, Chuck Cannon, Anurag Dhyani & Chen Jin, is highlighting key achievements of the Global Tree Assessment, implication of results, lessons learned, and evaluating future steps. Articles will focus on specific geographic regions or taxonomic groups, detailing progress and pitfalls. In this special issue, twelve articles provide a multi-faceted view of the impact of the Global Tree Assessment, how we might improve and accelerate future assessments, and how the information can be used to address issues facing ecosystem restoration. The articles include a number of different scales, from national assessments of highly diverse floras to a single protected area, from a taxonomic focus on taxonomic families to selected but completely known groups, and even specific practical issues involved in the restoration of an endangered species. It also includes a review article, issuing a warning to humanity about the impact of tree extinctions. This article was written by many of the Global Tree Assessment contributors highlighting how tree species extinction will lead to the loss of many other plants and animals and significantly alter the world's ecosystems. We also show how tree extinction will negatively affect billions of people through loss of livelihoods and benefits.



The special issue compiling all these articles will be published in 2023, however, the individual papers were published in 2022 and can be found by following the link below.



Data Tools

New online tools that enable the responsible exchange of plant material and data between bona fide organisation; and that assess the suitability of our collections are now live in BGCI's website:

- <u>Index Seminum</u> a global hub for annual seed exchange catalogues and,
- <u>PlantShare</u> for backup and exchange of conservation-valuable material among botanic gardens
- <u>Climate Assessment Tool</u> which gauges a location's suitability for tree species survival in future climate scenarios.

Please use these tools and continue building your collections!

INDEX SEMINUM



Saving **Plants**

Optimising conservation of trees

From BGCI, we aim to guide and prioritise conservation actions for the world's most threatened trees.

BGCI makes tree conservation information available via the **GlobalTree Portal** giving access to information on the almost 60,000 tree species, their distribution, conservation status, and conservation actions. This is thanks to the contributions of individuals, botanic gardens, and other plant conservation organisations from all over the world.

The Conservation Action Tracker is displayed in the GlobalTree Portal and presents known information on conservation actions for tree species, such as ex situ collections, propagation protocols, in situ management, policy and education. This information is crucial to guide and prioritise conservation actions for tree species, through the identification of gaps in tree conservation. Additionally, the Conservation Action Tracker aims to increase collaboration to stop the extinction of trees by facilitating connections between organisations and/or individuals working on tree conservation.



Click for more information

By the Numbers



158 plant species with targeted conservation action in 2022



38,356 tree species on the IUCN Red List



Portal

292 data sources 377,982 assessments listed

Conservation actions tracked for

2,849 tree species including

GlobalTree 1,568 threatened species of which

377 are critically endangered

On track to obtain information for all known Critically Endangered trees on the IUCN Red List with the support of plant conservation organisations and individuals



8 Global Conservation Consortia

with 284 affiliates from 45 countries



216 members



GSCC

Global Seed **Conservation Challenge**



48 members



Ecological Restoration Alliance of Botanic Gardens





IPSN

International Plant Sentinel Network

Global Conservation Consortia: *Nothofagus*

2022 saw the initiation of a project that addresses the integrated conservation needs of the threatened tree species of *Nothofagus* in Chile, as part of the Global Conservation Consortium for *Nothofagus*. South America is a hotspot for this exclusively Southern Hemisphere genus, and its species are of great ecological and cultural significance.

There are three South American Nothofagus species that are threatened with extinction: *N. alessandrii* (EN), *N. macrocarpa* (VU) and *N. glauca* (VU). Threats to these species include land use change, over-exploitation, fires and human-induced climate change. With time running out for these species, the project is targeting ecological restoration of the species' habitats, capacity building and the development of robust *ex situ* collections to support the *in situ* work.

Funded by Fondation Franklinia, the project is led Universidad de Concepción, working with Chilean institutions Universidad de Chile, Instituto Forestal (INFOR), Universidad Católica del Maule, Universidad de Talca, INIA and Club del Árbol de Talca, with support from BGCI.



International Plant Sentinel Network

The International Plant Sentinel Network (IPSN) continued to go from strength to strength during 2022. With support from the UK Government and the US Forest Service, monitoring programmes are being set up in botanic gardens across a number of countries to gather information on pests and diseases affecting key host species. Gardens in eastern Europe are continuing to monitor the spread of Emerald Ash Borer, with insect traps being provided to partner gardens to enhance this important surveillance work. As part of a EUPHRESCO¹ project, the IPSN has also been raising awareness of Beech Leaf Disease amongst European gardens, with survey forms and informative posters being widely disseminated.



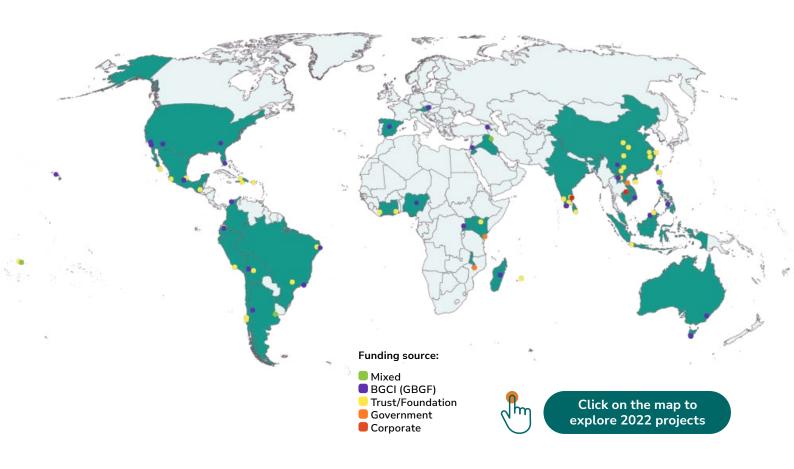
The UK Government has estimated that the total annual value of plants (including trees) to the UK is £15.7 billion per year² and the biosecurity threat to these resources is increasing. The IPSN has been recognised as an important partner in addressing such threats and in 2022, DEFRA³ provided additional funding to allow the IPSN to increase its activities in the UK, with a focus on biosecurity for botanic gardens and arboreta. A suite of capacity building resources on biosecurity are now under development.

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Learn more and watch the video

- ¹ European Plant Health Research Coordination
- ² <u>Plant biosecurity strategy for Great Britain</u> (2023 to 2028) – GOV.UK (www.gov.uk)
- ³ Department for Environment, Food and Rural Affairs

Action for Plants



Global Trees Campaign in 2022

BGCI promotes an integrated approach to the conservation and management of tree species with the ultimate aim that no tree species becomes extinct, working within the framework: Prioritise, Plan, Act and Monitor.

In order to Act to halt extinctions, in 2022, we worked with 34 partners in 19 countries around the world to conserve threatened plants – from South and Central America, and the Caribbean to Africa and South East Asia. Conservation actions were undertaken in 212 sites that have existing or historic populations of 79 of the most threatened trees in the world: from baseline survey and inventory work, to dealing with threats impacting them (carrying out patrols, building protective fencing or removing invasive competing species) and planting to augment or reintroduce populations. 33,296 seedlings and 18,639 mature trees of 35 species in the wild received active protection *in situ*, with 7,102 seedlings planted of 13 species. At the same time, 47 species were brought into *ex situ* conservation collections to act as a backup should wild populations be destroyed.

To increase the capacity of local people and increase the awareness of the flight of threatened trees locally, 25 training courses that included 332 people from more than 34 institutes were run, whilst at least 355 people received information in awareness raising campaigns and events.



Click to learn more about the GTC

Sustainable Use of Native Plants in Uganda

In a two-year project, funded by the Darwin Initiative, 34 native plant species are being investigated for the food value they could provide to people, whilst also having a positive impact on biodiversity. 31 local collectors have been trained by Tooro Botanical Gardens and Makerere University to collect fruits of the species so that their nutritional profiles can be analysed. Agroforestry plots, to test species growth, survival, production and impact on biodiversity have also been established with 225 trees planted; these will be monitored by staff and local community members. Five local markets in and around the capital city Kampala, are also being investigated by the project partner GrassRoots Ltd to understand what species and products are already traded. This work will provide evidence on which species might be best considered- from a marketing, ecological and production stand point - for future developments, with the aim to develop some new products in 2023.

Conserving Three Critically Endangered Trees from Peru

For the last three years, our partners in Peru (Huarango Nature and University of Jaen), have compiled information on distribution, threats, phenology, physiology and uses of Myrcianthes ferreyrae (CR), Parkinsonia peruviana (CR) and Pradosia argentea (CR). Field surveys, propagation protocol trials and workshops with local communities have been crucial to better understanding these threatened species. Saplings have been produced; technical sheets, propagation protocols and recovery plans have been developed, as well as an educational video for Pradosia argentea. Thanks to the project, local communities and staff reinforced their knowledge on seed collection, processing, sowing and growing of the plants until they are ready to be planted in situ. Huarango Nature in alliance with the Chapi Plant Conservation Center will continue with the conservation of the seasonally dry forests of the north of Peru.

Magnolias Conservation in Mexico

The project led by the Universidad de Guadalajara focused on five Mexican endemic Magnolia species. Partners have carried out survey work, seed collection, propagation protocol development and engagement activities with local communities. Thanks to the project, three plant nurseries have been established to grow threatened magnolias. In 2022 partners coordinated two major events, a workshop and a symposium. The workshop was attended by 35 participants including municipality, local community, conservationists and students and explored best ways of conserving natural areas such as the maple forest in Talpa de Allende. The symposium was attended by 80 people, during which we visited the Canoas Ejido where community members who are working hard to safeguard their natural forest and water resources. Old specimens of M. jaliscana grow in their forest and Magnolia plants are grown in the community nursery. 49 seedlings of M. jaliscana have been propagated and they will be planted in their managed community forest where they also grow coffee plants for local use.

Vietnam – Conservation of Camellias

Our project in Vietnam partnering with the Southern Institute of Ecology (SIE) successfully grafted camellias using *C. oleifera* rootstock. Propagation protocols were established for three species and a new species of *Camellia* was discovered during botanical survey, named *C. sphamii*.

Surveys with SIE, Cat Tien National Park and the Forest Science Institute of Central Highlands and South Central Vietnam (FSIH), yielded around 300 cuttings of *C. capitate*, *C. dalatensis* and *C. bugiamapensis*. Grafting using *C. oleifera* rootstock has proven to be successful for all these species and based on these findings, propagation protocols were developed. The grafted seedlings will be transferred to the national parks for re-introduction and a Species Recovery Plan for Camellias was established as part of the project.

A training workshop on propagation techniques for camellias was conducted at FSIH with a total of 25 participants. Besides the propagation techniques, the participants also learned about nursery management including design and operation of the greenhouse and watering.



Click for more 2022 stories on Saving Plants

Inspiring and Leading People

Exceptional Species Micropropagation Workshop 2022

Plant species classified as 'exceptional' are species that cannot be effectively conserved through conventional seed banking conditions. The tropical rainforest of Southeast Asia is home to many exceptional species where effective ex situ conservation becomes a challenge requiring a specific range of skills and technologies.

In November 2022, a training workshop on conserving exceptional species was held at Singapore Botanic Gardens (SBG) to build capacity of researchers and conservation officers working in Southeast Asia.



Read the full story

BGCI Membership 2022 In 2022: 731 members. with 162 new or returning members. Click on the map to Patron Gardens explore 2022 membership

Recovering the Wild in Northern Iraq

Years of war, deforestation, fire, overgrazing, expanding agriculture, and unplanned construction have reduced the native oak woodlands in Northern Irag, both as environmental assets and regarding species diversity. To promote their regeneration, for the past 3 years, a collaborative initiative has worked towards the conservation and propagation of remnant oak populations to develop ex situ conservation collections.



Future of Samoa's Threatened Botanical Heritage

The Samoa Conservation Society is working closely with the Samoan Ministry of Natural Resources and Environment and with technical and funding support from BGCI and the UK High Commission in Samoa, to establish Samoa's very first botanic garden, the Vailima Botanical Gardens (VBG). The VBG Masterplan was developed in late 2021 and work began in 2022 to establish the first zone which includes a rare and threatened native plants garden, medicinal plants garden and butterfly plants garden.





Regional Meetings

Botanical Bridges Congress 2022

Held in the island of outstanding beauty, Eleuthera, The Bahamas, and hosted by the gorgeous Leon Levy Native Plant Preserve, the 2022 Botanical Bridges Congress of the Caribbean and Central America Botanic Gardens (CCABG) Network, brought together nearly 50 participants from 26 institutions, representing 11 countries and territories.

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Read the full story

EuroGard

The 9th European Botanic Gardens Congress (EuroGard IX) was successfully held in Budapest, Hungary from 16–20 May. It was organised by the European Botanic Gardens Consortium, which is convened by BGCI, and the Hungarian Association of Arboreta and Botanic Gardens. The congress attracted 175 participants from 28 countries. The Scientific programme included 70 oral presentations, 6 workshops, and 51 posters.



AETFAT Conference

The 22nd AETFAT Conference took place in Livingstone, Zambia from 26th June – 1st July. Around 150 participants were involved, including representation from 18 African countries, and 28 countries in total. During the conference, an African Botanic Gardens Network (ABGN) meeting and training session was held (covering botanic garden master planning, living collection management, and collection of propagation material).



Red Sudamericana de Jardines Botánicos

In May 2022 BGCI organised and hosted a virtual annual meeting of the Red Sudamericana de Jardines Botánicos (RSAJB). The event was entitled "Los Jardines Botánicos como Agentes de Cambio" and explored topics such as climate change, restoration and pest and diseases. The meeting was attended by 80 participants with representation of all the countries in the region.



Learn more about RSAJB

Sharing **Knowledge** and Resources

BGJournal and Roots

BGCI publishes biannually BGjournal and Roots, focusing in plant conservation and education respectively.



Read BGjournal

By the Numbers

BGCI Data Tools

Index Seminum 5,592 seed accessions offered by

17 institutions lant

Share

PlantShare Launched

Climate assessment

tool launched with

Climate Assessment Τοοι

58,500 tree species under

3 different climate scenarios





134 experts in total

BGCI Training

BGjournal

27,097 people engaged through

54 training events including

Read Roots

ROOTS

11 online training courses

Number of people engaged through BGCI training events

26,200 in webinars 669 in workshops 228 in online courses

SHARING KNOWLEDGE AND RESOURCES

12

BGCI Online Training

BGCI's online training platform provides learning modules to BGCI members and other interested individuals. The modules are designed specifically for botanic garden professionals and cover a variety of topics that are essential for those working within the botanic garden sector. The platform currently hosts 11 training modules, many of which are member-only access. Our main focus has been the development of a 'Botanic Garden Basics' series. This is an introductory series of modules aimed at small and resource challenged gardens that provide practical training to complement the publication 'From Ideas to Realisation – BGCI's Manual on Planning, Developing and Managing Botanic Gardens' (2016).

The platform also has modules on public engagement, tree conservation and ecological restoration with further courses in seed conservation, biosecurity and data management planned for 2023.



Learn more about training

BGCI Webinars

Since the COVID-19 pandemic BGCI has been running online webinars for the plant community. In 2022 we ran four BGCI webinars and several technical regional online talks, engaging in total with 26,200 people worldwide.



Dipterocarpacea

In November 2022, we hosted a webinar for the upcoming release of The Red List of Dipterocarpaceae. Dipterocarpaceae is a large tree family with 535 individual species. With diversity centred in Southeast Asia, a deforestation hotspot and these trees being favoured for timber, it has been a priority of the Global Tree Assessment to assess all species of dipterocarp. The Red List of Dipterocarpaceae report and Webinar explores the diversity of this tree family, the threats to it and the conservation needs on both a global and National level. The webinar was attended by over 80 individuals and is available <u>here.</u> Four presenters spoke about different aspects of dipterocarp biology and conservation.



Watch BGCI webinars again

Our current modules:

Botanic Garden Basics:

- Defining a Botanic Garden
- Introduction to Master Planning
- Introduction to International Environmental Policies
- Plant Collection Policy Overview
- Applying for a Botanic Garden Fund Grant

Public Engagement:

- An Introduction to Interpretation
- Introduction to Evaluation

Tree Conservation

- Vegetative Propagation of Threatened Trees
- Propagation Protocols
- Monopole Content of the International Plant Sentinel Network (IPSN)

Ecological Restoration

• Scaling Up Biodiverse Forest Restoration Part 1

In-Person Training

As well as online training, BGCI staff travel to all parts of the world to provide in-person focused training workshops. In 2022, 669 people benefited from BGCI training workshops and gained skills such as drone training, monitoring sentinel plants, restoration, micropropagation, red listing,

In May 2022 we held a Red List training workshop to enable experts from across Central Asia to assess the extinction risk of native tulips. The workshop in Kyrgyzstan brought together participants from across four central Asian countries. To learn more about the threat status of Central Asian Tulips and the results from the workshop please read this news article.







BGCI's Global Botanic Garden Fund

BGCI administers small grants to support plant conservation and botanic gardens in their mission with support from The Morton Arboretum via ArbNet Grants, Minnesota Landscape Arboretum, and the United States Botanic Garden via the GGI-Gardens Awards Program; as well as BGCI's Member grants supported by the Gibson Charitable Trust and the Holiday Challenge.

In 2022, BGCI distributed 34 grants worth \$75,200 to 31 institutions across 24 countries.

Rediscovery and conservation of a lost ebony

Originally described in 1926, *Diospyros ketsensis* was previously only known from a single locality and a single herbarium specimen, and it has not been seen by another scientist since. After 27 field trips to the search area and over 1.5 years of field work, the team in the Madagascar Office (Missouri Botanical Garden) funded via the Anthony Hitchcock Species Recovery Fund, administered by BGCI, were able to locate the target species in 4 forest fragments in Ankazobe District.



Read the full story

Monitoring of threatened native tree species in Philippines

The project became a valuable tool for the success in the conservation of threatened native trees found in Negros Island Philippines. It doesn't only positively impact biodiversity but as well in the widening of the knowledge of the people towards arboreta and conservation practices. Faculties, administrators, students, and the local community were educated of the importance of protecting threatened native trees through the establishment of arboretum.

Read the full story

Addressing Global Challenges through Public Engagement and Education

Sustainability Challenge Pilot

With support from the Garfield Weston Foundation, BGCI worked with two UK botanic gardens to deliver the Sustainability Challenge Pilot project. This project aimed to create small-scale challenges that allow botanic garden visitors to contribute to climate change goals and turn sustainability engagement into collective conservation action.

Palate for the Planet Challenge

Oxford Botanic Garden developed the Palate for the Planet Challenge, which focused on the carbon footprint of food. Visitors recorded their personal eating habits over a two-week period, focusing on the carbon footprint of each meal, with the aim to eat more environmentally friendly food.

The resources included a poster, designed to be stuck on a fridge, with a wheel. This wheel focussed on the 50 most commonly consumed items in the UK and some lower carbon footprint alternatives and displayed them in nine categories, from the lowest to the highest carbon footprint. Participants were asked to tally how many items from each section of the chart they ate over a two-week period and submit their data at the end using a QR code.

Plant Warriors Challenge

Cambridge University Botanic Garden developed the Plant Warriors challenge, which looked at the purchase of sustainable houseplants and encouraged visitors to adopt environmentally friendly behaviours when buying indoor plants.

The challenge involved a shopping simulation where individuals could choose what plants they were interested in buying. They were then offered a sustainability score based on the plants they had chosen. With increased awareness of sustainability considerations, participants were then able to choose which plants they wanted to 'purchase'. The aim being to showcase sustainable practices within the horticultural industry and allow visitors to think critically when purchasing a plant.

Each garden produced a toolkit of resources enabling their challenge to be replicated and adapted by other gardens.









An Effective and Resilient BGCI

2022 Ukraine Botanic Garden Appeal

Together with the generosity of many individuals, botanic gardens, and partners, including a matched donation from the Atlanta Botanical Garden and support from over 50 gardens worldwide, we raised almost \$100,000 for the 2022 Ukraine Botanic Garden Appeal – **Thank you!**

This heartfelt <u>letter of love</u> to the M.M. Hryshko Botanic Garden summarises the impact of the donations:

"Thank you on behalf of each of our volunteer community for the opportunity to find comfort for the soul and relieve stress, working with plants and gaining strength in nature."

By establishing the **Disaster Recovery Fund** and launching the **2022 Ukraine Botanic Garden Appeal**, BGCI worked in 2022 to support the botanic gardens impacted by disaster. Funds raised were disbursed to 10 gardens to support a wide range of activities: from retaining staff, to maintaining collections, facilitating public engagement activities, keeping the doors opened of gardens to offer respite and sanctuary, and fostering collaboration among botanic gardens in the country.

To make this a reality, it required much coordination and many individuals across different time zones. Anthony Allison from Partnerships for Nature (PN) kept us going by organising meetings and was the link between BGCI and Ukraine Gardens. Ariadna Reida (also from PN) provided countless translations.

Abby Meyer (BGCI-US) led the way by encouraging donations within the US garden community. Patricia Malcolm led the appeal from BGCI UK, organising communications and disbursal of funds. Not forgetting Andriy Prokopiv, from Lviv Botanical Garden, who coordinated the activities and supported gardens in Ukraine. You can hear Andriy explaining the importance of the appeal in <u>this short video</u> released with the launch of the BGCI Ukraine Botanic Gardens Appeal,

In the first disbursal of funds, each garden received \$2,500 to help mainly with retention of staff and engagement with the general public. During this time, 140 staff were supported and gardens received 22,400 visitors. As the winter approached, and power cuts became more frequent, the task of organising the disbursal of the rest of the funds became more difficult. As we write this report funds have recently arrived to Ukraine.

"Thank you, everything is fine with us, the botanical garden continues to work, all employees are alive."

- From the director of Kharkiv Botanic Garden

• Watch the video

The role of botanic gardens for refugees

The Ukraine Botanic gardens supported by your donations have played a crucial role in providing a space for respite and rest for internally displaced people, especially for internal traumatised refugees (mostly women and children) who have relied on the botanic gardens and their staff. The botanic garden staff and volunteers have remained dedicated to the collections, education programmes, innovative activities, and the people who need the botanic gardens while there is a war is an incredible effort.



Stories from Ukraine

The **Ivan Franko National University of Lviv Botanical Garden** is the largest botanical garden in western Ukraine. It is also one of the oldest in the country, with a rich and diverse plant collection, comprising approximately 6,000 plant taxa. The support from the appeal has allowed the garden to run eco-educational excursions with internally displaced people in the green spaces of the city, during which they learnt about the value of natural resources and their positive emotional effect. The garden staff also worked with wounded soldiers, allowing them to disconnect from painful stresses amongst the plants in the Botanical Garden.

The additional financial support of garden employees made it possible to provide full care for the plant collections and allowed the retention of key staff.



Round tables

Since August of 2022 Partnerships for Nature (PN) who have been instrumental in helping BGCI contact Ukraine botanic gardens and organise the Appeal; has also been conducting monthly online Round Tables with directors and educators of all 10 Ukrainian botanical gardens. For these sessions PN has invited specialists from the US to provide presentations on areas of particular interest in environmental education. The Round Tables have also proved to be a productive forum for Ukrainian educators to share their own knowledge and experiences, and to build networks of communication. This is critically important: Ukrainian botanical gardens have lacked this network, and they continue to play a key role in wartime Ukraine as places of respite, recreation, and learning for millions of internal refugees and local citizens across Ukraine.

These online Round Tables have been deeply appreciated by participants.



By the Numbers



Over 13,000 people

received our newsletter, Cultivate, every month

Over 540,000 people reached

on social media



36 members of staff

14 board members

5 Regional Offices

BGCI-UK: Royal Botanic Gardens, Kew, London

BGCI-US: Huntington Library, Art Museum, and Botanical Gardens, California

BGCI-China: South China Botanical Garden, CAS, Guangzhou-Guangdong

BGCI-Southeast Asia: Singapore Botanic Gardens, Singapore

BGCI-Africa: Regional Office, Nairobi, Kenya . Hosted by IUCN ESARO.

Fun Facts from Our Staff

We have several sports players

We have an amateur appliance fixer



Some of us talk to plants

We have a few aspiring writers

We have a qualified plasterer

> One of us has a pet chicken

us love to

Expenditure (£)



- - One of our names means 'Little Leaf' in Greek - very on brand!

Income (£)



Grants (govt): 1.15 million Grants (other): 1.25 million Membership fees: 310,000 Donations: 190,000 Other: 20,000

Total income: Almost 3 million

A few of

perform

- Staff costs (projects): 800,000 Staff costs (other): 190,000
- Partner grants: 1.22 million
- Consultants and workshops: 250,000
- Other: 400,000*

Total expenditure: 2.9 million

* incl.: IT, rent, accounting, 7GBGF, communications and other project expenditure.

8 Nationalities 24 languages

> One of us loves an antique

We love crafting and letting our artistic juices flow!

We have a motorcyclist

We have some weird and wonderful party tricks

> One of us is a Scout leader

Take Action

Join BGCI

Our members represent a diverse network of organisations, from botanic gardens and arboreta to universities and NGOs, who work in plant conservation and restoration. Be part of the largest network of botanic gardens and plant conservation experts in the world by joining BGCI today!



Donate

Plants are essential for all life on earth, yet at least onefifth of all plant species are threatened with extinction! In 2021, BGCI found that at least one-third of tree species are threatened with extinction.

No matter what size donation, every contribution makes a real difference to us.

Donate today!

Sign up to our newsletter

Get updates about BGCI's work and more in our monthly newsletter.



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