

# BGCI's Annual Member's Review 2015

Connecting people • Sharing knowledge • Saving plants



**BGCI**

*Plants for the Planet*





# Message from BGCI's Secretary General



Dear BGCI members,

Welcome to BGCI's Member's Review, a new report that we will be publishing every year, summarising BGCI's work supporting our community of botanic gardens, and alerting you to new benefits and opportunities.

There are around 2,500 botanic gardens and arboreta in the world attracting 500 million visitors each year. Collectively, it is estimated that the world's botanic gardens conserve at least one third of known plant diversity in their living collections. Botanic Gardens Conservation International (BGCI) sits at the centre of this network. Our members include the largest, most renowned gardens on the planet but they also include many smaller gardens situated in the world's plant diversity hotspots. All of BGCI's member gardens share a commitment to ensuring that no plant species becomes extinct, and a combined workforce of many thousands of horticulturalists and scientists is working towards this end.

**In short, we are the largest plant conservation network in the world.**

BGCI provides support to its members in many different ways: we are an advocate for the botanic garden community, promoting the role of botanic gardens in plant conservation policy, practice and education; we connect people, co-ordinating efforts and bringing people together to exchange ideas; we are a knowledge hub, providing training, learning resources and professional support; and we provide funding and technical support to efforts aimed at saving plants.

2015 has been a tremendous year for BGCI, the botanic garden sector and, of course, the plants we are working to conserve. BGCI continues to lead efforts to achieve the targets of the Global Strategy for Plant Conservation (GSPC), and to mainstream the GSPC into National Biodiversity Strategies and Action Plans, and those of botanic gardens. Our efforts in 2015 included meetings and discussions with the CBD Secretariat and Executive Secretary, and working regionally to incorporate the GSPC into work plans and approaches (see page 4). 2015 has also been a busy year for conferences and congresses in the botanic garden community. BGCI either led or significantly contributed to major meetings in Europe, Asia and America (page 6).

During 2015, BGCI trained 355 people from 142 institutions in 32 countries around the world. BGCI-led training covered plant conservation policy, practice and education (page 8).

As a funder, BGCI disbursed a total of US\$920,000 to support projects, training and other activities in botanical organisations. 155 institutions benefited directly from BGCI support. Last but not least, BGCI's technical networks continue to lead global efforts in seed conservation, ecological restoration, tree conservation, and plant health (pages 12 to 16).

Within BGCI, the organization, much of 2015 was spent developing a 5 year Business Case and Plan (copies available), and reviewing our membership offer, databases and website. As a result of this work, we are delighted to alert you to some exciting developments you can look forward to in 2016 (page 20).

If you are not already a member of BGCI, let me urge you to become one (see [www.bgci.org/joinin/members/](http://www.bgci.org/joinin/members/)). It's an opportunity too good to miss!

**Dr Paul Smith,**  
BGCI Secretary General



In 2015, BGCI disbursed US\$920,000 to support projects, training and other activities in botanic gardens. 155 institutions benefited directly from BGCI support.



Conferences and Congresses  
BGCI led major meetings in  
**Europe, Asia  
and America**

BGCI trained  
**355**  
people from  
**142**  
institutions and  
**32**  
countries around  
the world

## SHARING KNOWLEDGE



Two editions of **BGJournal** published.  
7 case study articles on seed conservation  
and 8 on tree conservation  
[www.bgci.org/resources/bgjournal/](http://www.bgci.org/resources/bgjournal/)



Two issues of **Roots** published. 18 articles  
on marketing and on learning spaces.  
[www.bgci.org/public-engagement/roots/](http://www.bgci.org/public-engagement/roots/)

## SAVING PLANTS

A total of  
**175 tree taxa**  
were assessed by BGCI,  
submitted and accepted  
on the IUCN Red List.

The Ecological  
Restoration Alliance  
currently has  
**20 member  
botanic gardens**  
carrying out ecological  
restoration projects in a  
diverse range of ecosystems.



To date,  
**140 gardens in over  
50 countries**  
are participating in the Global Seed  
Conservation Challenge. Seed bank  
data has been uploaded to  
PlantSearch from 42 gardens

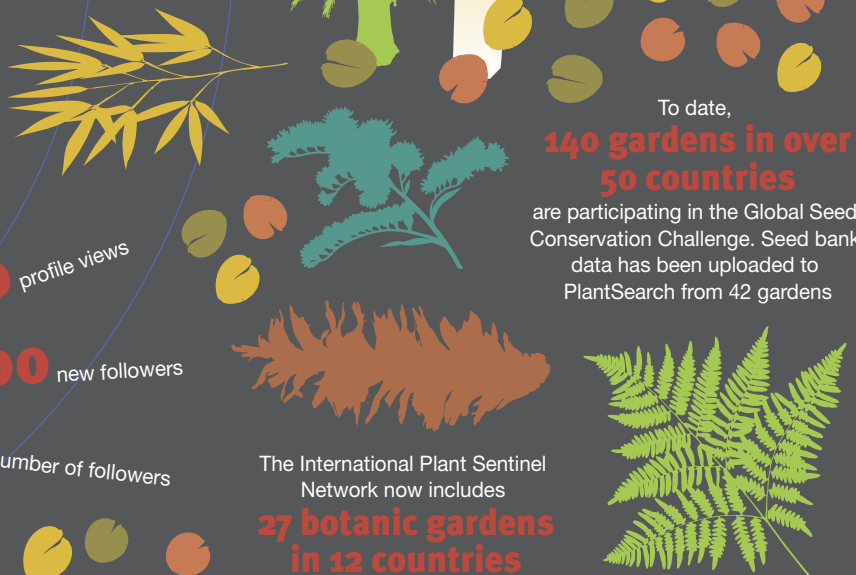
## DOWNLOAD

6 issues of BGCI's e-newsletter **Cultivate** published.  
Sent to around 6,500 recipients.  
[www.bgci.org/news-and-events/ournewsletter/](http://www.bgci.org/news-and-events/ournewsletter/)



BGCI generated **881** tweets  
over **27,000** profile views  
attracted nearly **2,000** new followers  
to date **6,114** total number of followers

The International Plant Sentinel  
Network now includes  
**27 botanic gardens  
in 12 countries**





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Barney Wilczak





Barney Wilczak

## Advocacy and policy support

**BGCI continues to lead efforts to achieve the targets of the Global Strategy for Plant Conservation (GSPC), and to mainstream the GSPC into National Biodiversity Strategies and Action Plans, and those of botanic gardens. Our efforts in 2015 included meetings and discussions with the CBD Secretariat and Executive Secretary, and working regionally to incorporate the GSPC into work plans and approaches. Here are some highlights.**

### The Global Partnership for Plant Conservation (GPPC)

The GPPC met in Paris in July to assess international efforts to implement the Global Strategy for Plant Conservation (GSPC) of the Convention on Biological Diversity (CBD). BGCI provides the Secretariat for the GPPC. The meeting was Chaired by the Executive Secretary of the CBD, Dr Braulio de Souza Dias, who emphasized the importance of making progress towards achieving the GSPC Targets by 2020 and the need to engage more key countries. It was agreed that greater efforts are still required in relation to capacity building, technical and scientific cooperation, outreach and communication. It is hoped that BGCI's new partnership and twinning programme will help to address some of these issues. Strengthened linkages were also proposed with other policies, programmes and processes, such as CITES, UNESCO's Man and the Biosphere Programme and the Alliance for Zero Extinction.

### Plant Conservation Alliance (PCA)

In the US, BGCI is an active member of the PCA, an advocacy group that works nationally to inform federal and state legislators about plant conservation and native plant issues. Specifically, in 2015, BGCI provided information from the botanic garden sector on the National Seed Strategy for Rehabilitation and Restoration ([www.blm.gov/wo/st/en/prog/more/fish\\_\\_wildlife\\_and/plants/seedstrategy.html](http://www.blm.gov/wo/st/en/prog/more/fish__wildlife_and/plants/seedstrategy.html)) developed by the Bureau of Land Management and PCA. BGCI (U.S.) signed a national MOU with the American Public Gardens Association, the Center for Plant Conservation, and the Plant Conservation Alliance. As a first action under the MOU, BGCI initiated an update of the **North American Botanic Gardens Strategy for Plant Conservation** in partnership with the United States Botanic Garden.

### The European Botanic Gardens Consortium

The Consortium includes representatives of the botanic garden networks from all European countries. BGCI convenes the Consortium, provides the Secretariat and manages a ListServer to connect and link all Consortium members. Three meetings of the Consortium were held during 2015, hosted in Dublin (National Botanic Gardens of Ireland), Paris (National Natural History Museum) and Geneva (Botanic Garden of the City of Geneva). Key issues addressed by the Consortium this year focused on understanding the implications for botanic gardens of the



introduction of EU Regulations on Access and Benefit Sharing and invasive species. At the end of 2015, PlantSearch included 625,869 plant records from 410 European gardens (up from 604,542 plant records from 375 gardens at the end of 2014).

### The Southeast Asia Botanic Gardens (SEABG) network

SEABG is supported by BGCI, and was set up in 2004 to acknowledge, support and promote the work of botanic gardens in the region. The network comprises gardens from Brunei, Cambodia, China (tropical southern provinces), Hong Kong, Indonesia, Japan (tropical Okinawa prefecture), Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Taiwan, Thailand, Timor Leste and Vietnam. The 5th SEABG network meeting, held on the 2-5th November, was hosted by Eka Karya Bali Botanic Gardens, Indonesia, in collaboration with the Center for Plant Conservation, Botanic Gardens – Indonesian Institute of Sciences (LIPI) and BGCI.



Paul Beales, APHA

### The International Plant Sentinel Network (IPSN)

BGCI co-ordinates the IPSN which has promoted the role of botanic gardens and arboreta in safeguarding plant health at a number of key events throughout the year. These included:

- The Commission on Phytosanitary Measures (CPM) - International Plant Protection Convention (IPPC). This is the annual meeting of the world's government organisations responsible for phytosanitary, quarantine measures and biosecurity in the trade of plants and plant material.
- The European and Mediterranean Plant Protection Organisation (EPPO) Panel on Forestry; EPPO is the regional agency responsible for phytosanitary, quarantine measures and biosecurity in the trade of plants and plant material. The meeting was attended by key representatives from throughout Europe. The IPSN also published a paper in the EPPO Bulletin, which is distributed among all EPPO members.

Finally, BGCI had great pleasure in gathering nominations for the **Marsh Christian Awards for International Plant Conservation and Education in Botanic Gardens**. The worthy winners of these awards, respectively, were **Jože Bavcon** (University Botanic Gardens, Ljubljana) and **Sophie Williams** (Bangor University and Xishuangbanna Tropical Botanical Garden).

During 2015, **40 news articles** promoting the work of botanic gardens were published on the BGCI website and numerous tweets were sent out. **Six gardens** have been featured on the website homepage since the 'featured garden' was introduced in June 2015. In addition, BGCI staff supported the 'Beyond our borders' exhibition garden at **Chelsea Flower Show** in May, which was designed to raise awareness about invasive pests and diseases. The garden won a gold medal.





*“It was so inspiring to see that there are people all over the world doing the same things and sharing enthusiasm about teaching about nature and plants.”*

## Connecting people – conferences and congresses

2015 has been a busy year for conferences and congresses in the botanic garden community. BGCi either led or significantly contributed to major meetings in Europe, Asia and America in the past year. Here are some examples.

### BGCi's 9th International Congress on Education in Botanic Gardens

BGCi's 9th International Congress on Education in Botanic Gardens was held at the Missouri Botanical Garden in St Louis from April 26th to May 1st. Entitled *'Biodiversity for a Better World: Wild Ideas Worth Sharing'* the congress was attended by 296 delegates from 34 countries, eight of whom were awarded scholarships funded by the Sylvia Scholarship fund and the Missouri Botanical Garden. Seven BGCi staff attended the congress, organizing a range of workshops and making several presentations. The Congress Proceedings are available online (see [www.bgci.org/public-engagement/edu\\_congress/](http://www.bgci.org/public-engagement/edu_congress/)). These include an executive summary, papers from presenters and related resources. All presentations delivered can also be downloaded. BGCi would like to extend its thanks to the Missouri Botanical Garden who did a superb job in organizing this very successful congress.

*“Contact with the diversity of botanical gardens broadened my vision of what we can achieve in our botanical garden, despite the difficulties of an institution like this in a developing country like Brazil.”*

Flávia Santos Faria, Biologist, Natural History Museum and Botanical Garden of the University of Minais Gerais





## 7th European Botanic Gardens Congress, EuroGard VII

BGCI played an important role in the organization of this meeting, which was held in Paris from July 6th to 10th at the Muséum National d'Histoire Naturelle. As well as promoting the Congress widely to its members and other partners, BGCI contributed to the development of the scientific programme and the identification of keynote speakers. Under the title: *'European Botanic Gardens in the Decade of Biodiversity: Challenges and responsibilities in the countdown towards 2020'* the congress brought together representatives from botanic gardens across Europe and beyond. The scientific programme focused on the new *European Botanic Gardens Action Plan*, with sessions addressing horticulture, science, conservation, heritage, education and networking in botanic gardens. The congress attracted 269 delegates from 41 countries. Seven BGCI staff attended the Congress, organizing a range of workshops and making several presentations.

## 5th Southeast Asia Botanic Gardens (SEABG) network meeting

The 5th SEABG meeting held in Bali, Indonesia from November 2nd to 5th was attended by some 40 participants (of which 8 were BGCI-sponsored) from 21 institutions. The gathering was held in two parts: the SEABG business meeting (2-4 November) followed by a training course on Access to Genetic Resources and Benefit-Sharing under the Convention on Biological Diversity and the Nagoya Protocol (4-5 November). The SEABG meeting successfully concluded with the elaboration of a four-step action plan including 1) update of contact details of national SEABG representatives and related BGCI GardenSearch entries; 2) establishment of a SEABG network working practices document outlining SEABG secretariat options, office hosting, terms of reference and related financial resource needs; 3) enhancement of communications and internet visibility; and 4) strengthening of resource mobilization for new capacity building, species recovery, habitat restoration and environmental education projects. The Dr. Cecilia Koo Conservation Center, Department of Life Sciences, Taiwan, offered to host a SEABG coordinator position subject to examination of the terms of reference. The meeting closed with the announcement by the emerging botanic garden in Bidoup Nui Ba National Park, Vietnam, to host the next meeting in 2017. Nong Nooch Botanical Garden, Thailand, has generously offered to provide travel support for selected countries to participate in the 6th SEABG meeting.

*“The SEABG Network is the perfect platform to enhance professional relations among the region’s botanical institutions. It is an invaluable avenue to exchange ideas and best practice, and ask for advice. Having the continued and excellent support from BGCI who facilitates the network, moderates discussions and draws up the programmes based on members’ feedback, has been instrumental to the success of the network. BGCI’s sponsorship of less affluent institutions is immeasurable. No doubt, everyone who has participated has gone back with new, useful information, new contacts and fond memories of friendship.”*

Dr. Nura Abdul Karim, Assistant Director,  
Library, Training and External Relations,  
Singapore Botanic Gardens and National Parks Board

BGCI provided support for the **Annual Meeting of Chinese Botanic Gardens** on 11th to 14th November 2015, and BGCI’s Chairman, Professor Stephen Blackmore and BGCI’s China Co-ordinator, Xiangying Wen, gave lectures.

BGCI also helped to coordinate the conservation content for the **8th Triennial International Oak Society Conference** at The Morton Arboretum in Lisle, IL (USA). Former BGCI Secretary General Sara Oldfield provided an inspirational keynote speech to the 200 conference delegates, in which she advocated the role of botanical gardens in tree conservation efforts. An oak Red List workshop was hosted by BGCI and attended by 43 conference delegates who contributed valuable information to the Morton Arboretum’s efforts to compile IUCN Red List assessments for the world’s oak species. In association with the IOS conference, a meeting of the **IUCN/SSC Global Tree Specialist Group (GTSG)** was also hosted at The Morton Arboretum and organized by BGCI. This 3rd meeting of the GTSG included 30 tree experts from around the world who gave updates on global efforts to Red List oaks, magnolias, ebonies, timber trees, walnuts, and hydrangeas. The group resolved to implement a working group to Red List the trees of North America and to recruit many botanic garden partners to contribute to the Global Tree Assessment.

Other BGCI activities related to connecting people included **57 jobs** in botanic gardens advertised on the BGCI website, and approximately **1,500 requests** for information on plants which were sent through the PlantSearch blind email request system.





## Sharing knowledge – training courses

During 2015, BGCI trained 355 people from 142 institutions and 32 countries around the world. BGCI-led training covered plant conservation policy, practice and education. Here are some of the highlights.

### Global Strategy for Plant Conservation

A stakeholder workshop on implementing the Global Strategy for Plant Conservation in Uganda was held in partnership with the National Environmental Management Authority (NEMA) from March 4th to 6th 2015. The aims of the workshop were:

- (1) to review progress towards the GSPC targets and gather information on the state of plant diversity and its conservation in Uganda, noting significant gaps that need to be addressed;
- (2) to bring together key GSPC stakeholders in Uganda and identify opportunities to strengthen linkages between them;
- (3) to identify linkages between the GSPC targets and other environmental / agricultural agreements and discuss ways and means to streamline reporting processes. A total of 27 people attended the workshop from a range of governmental and non-governmental organizations across Uganda. It was proposed that all lead agencies should meet annually and report back to NEMA, the coordinating body for biodiversity information.

*“It was a great, and timely training. We at TBG we are already applying the knowledge.”*

Godfrey Ruyonga, Director, Tooro Botanical Gardens

*“It was a good workshop with high interactions between the participants. We shouldn't hesitate to share the information. We hope to move the lessons learnt forward.”*

Annet Night Ssempala, the Environmental Conservation Trust of Uganda (ECOTRUST)

Further GSPC training was provided to 12 scientists from 10 Francophone countries (Africa + Haiti) prior to the Eurogard VII meeting in Paris in July. This workshop was carried out in conjunction with the Paris Muséum National d'Histoire Naturelle.

### Access and benefit-sharing (ABS)

In conjunction with the 5th Southeast Asia Botanic Gardens (SEABG) network meeting in Bali, a 1.5 day ABS capacity building workshop was organised by BGCI. The objective of this training

was to broaden understanding of the access to genetic resources and benefit-sharing (ABS) provisions of the Convention on Biological Diversity (CBD) and the Nagoya Protocol on ABS, and build the knowledge and expertise necessary to develop practical ABS implementation measures for each botanic garden. The workshop was attended by 37 people from 21 organizations from 14 countries. A series of six self-learning modules on ABS are available on the BGCI website, including Chinese, French and Spanish translations. See [www.bgci.org/policy/abs\\_learning/](http://www.bgci.org/policy/abs_learning/)

*“The SEABG ABS training workshop was a great and enjoyable learning experience – the knowledge gained will greatly help us to enhance the conservation of our biological resources.”*

Leilani A. Castillo, Researcher, Botanic Gardens, Parks and Ecotourism Division, Makiling Center for Mountain Ecosystems, University of the Philippines Los Baños

### Seed conservation

Within the framework of BGCI's Global Seed Conservation Challenge (GSCC), a seed conservation training course was organized by BGCI from November 30th to December 3rd, 2015 in collaboration with Carlos Thays Botanic Garden (CTBG), the







Secretariat to the Convention on Biological Diversity, Institut Klorane and Pierre Fabre Argentina, at CTBG, Buenos Aires, Argentina. The aims of the workshop were to 1) enhance the technical capacity of Argentinian botanic garden staff in seed conservation through theoretical and practical modules; 2) identify current national *ex situ* conservation activities; 3) encourage collaborative seed banking activities and promote networking throughout the Red Argentina de Jardines Botánicos, and; 4) develop specific activity streams for the conservation of priority species. The training was delivered through a series of thematic modules including planning a collection; assessing a population; seed collection; post-harvest handling; and data management. Training and discussions on these topics were further consolidated through a practical day at the Costanera Sur Ecological Reserve in the vicinity of Buenos Aires, and a day dedicated to post-harvest handling activities at the Maimónides University. Attended by 25 participants from a diverse range of botanical institutions in Argentina, trainers were provided by BGCI, Argentinian botanic gardens and agricultural research institutes including UNAM and INTA, as well as by the agricultural research institute of Chile (INIA). Participants' feedback on the training has been overwhelmingly positive.

## Plant health

An IPSN meeting held at Huntington Library, Art Collections and Botanical Gardens, in San Marino, California, USA on March 3rd to 4th, 2015 focused on building awareness of symptoms and monitoring protocols for the polyphagous shot hole borer (PSHB), *Euwallacea* spp., and the gold spotted oak borer (GSOB), *Agrilus auroguttatus*. The workshop brought together 25 garden staff and plant health experts from 16 institutions in southern California and northwestern Mexico where these two organisms pose the greatest immediate threat. Training included lectures and outdoor fieldtrips to observe pest damage first-hand. Outcomes include the addition of new IPSN garden and staff members and subsequent connections formed between U.S. and Mexican federal pest and disease agencies in southern California and northwestern Mexico.

An IPSN workshop on '*The Identification and Diagnosis of Longhorn Beetles in China and nearby Countries*' was held at Shenzhen FairyLake Botanical Garden and Chengdu Institute of Botany (CAS), China on March 26th to 27th, 2015. The meeting included 41 participants from 23 institutions, and comprised an in-depth introduction to monitoring and surveying techniques used for the identification of damaging plant pests and pathogens. The workshop focused particularly on increasing knowledge of the longhorn beetle family in southern China.

The main outcome was increased awareness and knowledge of this pest, and the group set up a QQ-sharing platform to continue to share information on plant health/biosecurity.

## Plant conservation

In China's Zhoushan Archipelago, BGCI led a training course on Threatened Island Plants Conservation Techniques and Degraded Island Ecosystem Restoration in Daishan County in October 2015. Approximately 100 plant conservation practitioners attended, mainly from local forest stations.

## Tree conservation

BGCI ran two training courses focused on tree conservation during 2015, under the umbrella of the Global Trees Campaign.

In collaboration with the Royal Botanic Gardens, Kew and the Uganda National Gene Bank, BGCI held a three day training course on '*Tree seed collecting and conservation techniques*', in Seeta, Uganda from February 26th to 28th, 2015. A total of 28 participants from Ugandan botanic gardens, universities and government departments involved in tree seed collection attended. The course covered topics including phenology, collection techniques, data collection, seed handling and obtaining permits. Participants identified priority tree species for seed collecting programmes based on their utilization, local importance and conservation status.

As part of a joint partnership between BGCI and the Ethiopian Biodiversity Institute (EBI) to build capacity of Ethiopian botanic gardens, a workshop on '*Establishing and maintaining conservation collections of endangered and important ecosystem trees*' was held at Wondo Genet College, Ethiopia, from the 7th to 11th December, 2015. The workshop was attended by 45 participants from government, university and private botanic gardens across Ethiopia. Aligning with BGCI's project activities in the country, this latest workshop focused on tree conservation and was delivered in collaboration with the University of Oxford's Harcourt Arboretum. The five day course involved presentations and working group sessions to identify the threats to and status of Ethiopia's trees and forests and the potential role of Ethiopian botanic gardens in tree conservation and forest restoration. Training was delivered in tree seed collection, propagation and nursery management, and tree planting, care and management. Following on from last year's workshop, Ethiopian botanic gardens were supported to develop an accession policy for their institution. Workshop participants also visited four botanic gardens over the five day course to share ideas on garden layout and focus.





# Publications and communications



BGCI's regular publications range from our professional journals, *BGJournal* and *Roots*, to our regular newsletter, *Cultivate*, and tweets from our @BGCI Twitter account. We also produce regular red list assessment outputs to help botanic gardens to better prioritize their conservation activities, and *ex situ* surveys to identify gaps in collections.

Finally, this year has seen two important BGCI publications on the social role of botanic gardens. Details are below.

## BGCI journals, newsletter and social media



In 2015, two editions of BGCI's **BGJournal** were published, one focusing on seed conservation and the other on tree conservation. Fifteen case study articles on the work of botanic gardens were published

in these editions, 7 on seed conservation and 8 on tree conservation. These can be downloaded or viewed at [www.bgci.org/resources/bgjournal](http://www.bgci.org/resources/bgjournal)

In 2015, 6 issues of BGCI's e-newsletter **Cultivate** were published. These contained a roundup of recent news, events and publications and were sent to around 6,500 recipients each time. You can sign up to *Cultivate* or view previous issues at [www.bgci.org/news-and-events/ournewsletter/](http://www.bgci.org/news-and-events/ournewsletter/)

From its **Twitter accounts** (@BGCI, @Global Trees, @IPSN\_BGCI and @BGCIeducation), BGCI generated 881 tweets, over 27,000 profile views and attracted nearly 2,000 new followers. Our total number of followers is 6,114.

Two issues of **Roots** were also published in 2015, one on marketing and the other on learning spaces. A total of 18 articles were included in these editions. They can be downloaded or viewed at [www.bgci.org/public-engagement/roots](http://www.bgci.org/public-engagement/roots)



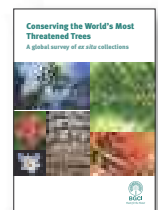
## Red list assessments

In 2015, a total of 175 tree taxa were assessed by BGCI, submitted and accepted on the IUCN Red List. These were: 87 species of Theaceae; 33 species of Magnoliaceae; 52 species of *Quercus*; and 3 other tree species. See [www.iucnredlist.org/](http://www.iucnredlist.org/)

A further 90 assessments of neotropical Magnoliaceae were assessed by BGCI and submitted, but they won't be incorporated until 2016.

## Ex situ surveys

Published in October 2015, BGCI's **Ex situ survey of threatened trees** concluded that 74% of the 5,330 trees assessed as globally Critically Endangered or Endangered are absent from *ex situ* collections. This means that the majority of threatened trees are not backed up in botanic garden collections, and are therefore at greater risk of extinction. Additional outputs of this work include a comprehensive list of conservation assessments from multiple sources as well as a list of the world's trees species. This list contains c. 54,210 accepted names of tree species, making it the most comprehensive global tree list developed to date. In 2016, this tree list, GlobalTreeSearch, will be fully georeferenced.



The full report can be downloaded at [www.bgci.org/news-and-events/news/1282/](http://www.bgci.org/news-and-events/news/1282/)



BGCI (U.S.) launched its Collections Assessment Service in 2015, and assessed collections for the Boyce Thompson Arboretum and the United States Botanic Garden. Please contact Abby Hird (a.hird@bgci.org) for more details.

Published in June, BGCI's **Global *ex situ* survey of Betulaceae** collections concludes that 68% of the Betulaceae family is found in *ex situ* collections. However, four threatened species of Betulaceae are not listed in *ex situ* collections so should be brought into collections as a priority. Full information about the survey and the taxa absent from collections can be found here [www.bgci.org/plant-conservation/betulaceae\\_survey/](http://www.bgci.org/plant-conservation/betulaceae_survey/)



### Ecological restoration

BGCI and the Botanic Garden of Government College University, Lahore, Pakistan, published a technical synopsis report on their five-year pilot project to trial restoration techniques in Punjab province. The report gives an account of the challenges and options for ecological restoration in four dryland vegetation types. It also provides an example of how the determination and enthusiasm of a botanic garden in a region with highly testing environmental and political conditions can influence the opinion of provincial government officials and raise awareness of local communities to promote native species in dryland restoration.

The full report can be downloaded at [www.bgci.org/files/Worldwide/News/2015jan\\_feb/PakistanWoodlowres.pdf](http://www.bgci.org/files/Worldwide/News/2015jan_feb/PakistanWoodlowres.pdf)

### Public engagement

In April 2015, a new publication, **Caring for your community: a manual for botanic gardens**, was published by BGCI. This highlights case studies from gardens that are conducting exemplary work related to their social role, and aims to encourage and support others to do the same.



2015 saw the end of the first phase of Communities in Nature, BGCI's five-year programme which aimed to support botanic gardens to have a greater social focus. **How can botanic gardens grow their social role? Lessons from the Communities in Nature programme**, is an in-depth review of the programme. The document highlights successes as well as future actions for the sector and BGCI. In 2016, BGCI will scale-up Communities in Nature based on this.

Both reports can be viewed or downloaded from [www.bgci.org/public-engagement/communities\\_in\\_nature/](http://www.bgci.org/public-engagement/communities_in_nature/)

In the US, BGCI's **Care for the Rare** program offers free interpretation resources to tell visitors the conservation stories of threatened plants in botanic gardens. A mobile app is planned for launch in 2016. For more information on the Care for the Rare program, visit [www.bgci.org/usa/CareForTheRare](http://www.bgci.org/usa/CareForTheRare)

### Papers

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Brummitt, N.A., Bachman, S.P., Aletrari, E., Chadburn, H., Griffiths-Lee, J., Lutz, M., Moat, J., **Rivers, M.C.**, Syfert, M.M. & Nic Lughadha, E. (2015). The Sampled Red List Index for Plants, phase II: ground-truthing specimen-based conservation assessments. *Phil. Trans. R. Soc. B* 370: 20140015. <http://dx.doi.org/10.1098/rstb.2014.0015>

Cavender, N., **Westwood, M.**, Bechtoldt C., Donnelly, G., **Oldfield, S.**, Gardner, M., Rae, D., & McNamara, W. (2015). Strengthening the conservation value of *ex situ* tree collections. *Oryx* 49(3): 416-424. <http://dx.doi.org/10.1017/S0030605314000866>

Griffith, M.P., M. Calonje, A. Meerow, F. Tut, A. Kramer, **A. Hird**, T. Magellan, and C. Husby. 2015. Can a botanic garden cycad collection capture the genetic diversity in a wild population? *International Journal of Plant Sciences*.

**Hird, A.** and **S. Sharrock**. 2015. BGCI's GardenSearch and PlantSearch Databases: the World's Botanic Gardens and Living Collections at Your Fingertips. *International Plant Propagators Society, Northeast Annual Conference Proceedings*. IPPS.

**Hird, A.**, M.P. Griffith, T. Magellan. 2015. Cycads: A model group for *ex situ* conservation. *Botanic Gardens Conservation International*. 4 p.

Newton, A., **Oldfield, S., Rivers, M.**, Mark, J., Schatz, G., Tejedor Garavito, N., Cantarello, E., Golicher, D., Cayuela, L. & Miles, L. (2015). Towards a Global Tree Assessment. *Oryx* 49: 410-415. doi:10.1017/S0030605315000137.

**Shaw, K.**, Nicholson, M., & Hardwick, K. (2015) Encouraging and enabling a science-based approach to ecological restoration: An introduction to the work of the ecological restoration alliance of botanic gardens (ERA). *Sibbaldia*. **13**: 142-152.



# Saving plants – BGCI's plant conservation programmes

BGCI co-ordinates a series of botanic garden-centred technical networks carrying out direct plant conservation action, including seed conservation, tree conservation, ecological restoration and plant health.

A summary of each of these is provided below, together with details about how you can join in.



## The Global Seed Conservation Challenge (GSCC)

GSCC is a major new BGCI initiative which aims to increase the contribution of botanic gardens towards achieving Target 8 of the Global Strategy for Plant Conservation (GSPC) which calls for **'75% of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20% available for recovery and restoration programmes by 2020'**. The Convention on Biological Diversity's mid-term review of the GSPC highlighted that more needs to be done if this target is to be achieved.



In 2015, a major review of seed banking in botanic gardens was undertaken and published in BGjournal. Following this review, BGCI's Global Seed Conservation Challenge was launched on April 7th, and an email list server was set up to provide a platform for discussion and collaboration within the network.

A seed conservation 'hub' has also been set up to provide seed banking resources to gardens carrying out seed conservation (see <http://www.bgci.org/plant-conservation/seedconservation/>). Gardens banking seed towards achieving Target 8 of the GSPC are promoted on BGCI's website at <http://www.bgci.org/plant-conservation/seedbanking/>.

To date, **140 gardens in over 50 countries** are participating in the Global Seed Conservation Challenge. Seed bank data has been uploaded to PlantSearch from 42 gardens, and BGCI is assisting several gardens in setting up seed banks. (Betty Ford Alpine Gardens, Jardín Botánico Carlos Thays, Arboretum Parque Doña Inés).

The GSCC aims to:

- Encourage more botanic gardens to become involved in seed banking, working 'outside the garden walls' to bring threatened species that are not already conserved into *ex situ* collections;
- Establish a seed collecting 'hub' at BGCI which will provide a 'one-stop-shop' for seed banking information and training resources;
- Provide training and build capacity to support seed collecting and raise seed banking standards;
- Strengthen networks to help botanic gardens share experiences and resources in seed banking;
- Award prizes for seed conservation at the 6th Global Botanic Garden Congress in 2017.

To join the Global Seed Conservation Challenge see [www.bgci.org/plant-conservation/seedconservation/](http://www.bgci.org/plant-conservation/seedconservation/)



Seeds of Success





## The Global Trees Campaign

is a joint initiative between Fauna & Flora International (FFI) and BGCI. It is the only international programme dedicated to saving all of the world's threatened tree species.

Over **9,600 tree species** are known to be threatened with extinction. Of more concern,

**1,850 species are listed as Critically Endangered** – i.e. are likely to go extinct unless urgent action is taken now to save them.

The Global Trees Campaign recognises that saving forests will not necessarily save the immense variety of tree species, many of which require individually-targeted attention to ensure their survival. Launched in 1999, to date the GTC has supported tree conservation in 25 countries worldwide.

The GTC aims to be the advocate and voice for threatened trees, both directly supporting threatened tree conservation and catalyzing others to take action. It does this in four main ways:

- **Prioritising trees of greatest conservation concern through red listing and *ex situ* surveys.** BGCI provides the secretariat of the IUCN/SSC Global Tree Specialist Group (GTSG), the lead authority undertaking red list assessments of trees to determine their conservation status in the wild. It also performs *ex situ* analyses to identify which threatened trees are represented or absent from conservation collections, including in botanic gardens and seed banks. This allows GTC to prioritise conservation action to focus on those species most in need.
- **Building capacity for saving threatened trees.** The GTC helps its local partners to develop the knowledge and skills needed for threatened tree conservation, providing resources, delivering training courses and sharing examples of best practice.
- **Carrying out practical conservation for threatened trees.** Working with its local partners, the GTC supports a range of projects focusing on saving some of the world's most threatened tree species.
- **Raising awareness of the need for tree conservation.** The GTC encourages tree planters, conservation groups, corporations and other relevant groups to integrate rare or threatened trees into their work.

GTC's mission statement is  
*“ to prevent all tree species extinctions in the wild, ensuring their benefits for people, wildlife and the wider environment ”.*



## Argentina

BGCI was delighted to announce a new international conservation partnership in July 2015 bringing together Institut Klorane, France, Pierre Fabre Dermo-Cosmétique and Carlos Thays Botanic Garden, Argentina. This initiative aims to enhance and promote greater knowledge of Argentina's little known medicinal flora and implement *ex* and *in situ* conservation measures. With as many as 1,500 species of Argentina's flora reported to have medicinal attributes including a number of native trees, the project will initially focus on 10 endemic or native target species for which seed and living collections will be established. Further, a series of public outreach activities will be undertaken, including the production of new interpretation panels.



*We are delighted about this new international partnership with BGCI and the botanic garden community in Argentina. Our corporate foundation reflects the mission of the Pierre Fabre Laboratories to care for the human being as a whole by drawing on continued inspiration from nature and plants. We are committed to the conservation and promotion of the Earth's botanical heritage and work closely with a large number of partners.*

Florence Guillaume, Director, Klorane Institute

## China

In 2015, BGCI supported 12 practical tree conservation projects in Zhejiang, Guangdong, Guangxi, Yunnan, Sichuan, and Xinjiang provinces in China, aiming to enhance efforts to conserve and restore native threatened species and habitats, engage local communities in conservation action and improve local livelihoods. Our major partners include Shenzhen FairyLake BG, Xi'an BG, Guilin BG, Kunming BG, Shangri-La Alpine BG, Xishuangbanna Tropical BG, Turpan Desert BG in Xinjiang, Tarim University, Yunnan Institute of Environment, Zhejiang University, Chengdu Kanghua Community Development Center (local NGO) and Chengdu Institute of Biology (CAS). Through this integrated conservation approach, **25 highly threatened tree species are recovering.**







## Ecuador

A new initiative for magnolia conservation was developed in Ecuador following the *International Symposium on neotropical magnolias*, Universidad Estatal, Puyo, Ecuador, July 2015. The country is proving to be a rich source of new taxa, with some 11 taxa currently known to be endemic. This project aims to survey, collect and establish conservation collections for 8 species (*Magnolia bankardiorum*, *M. canandeana*, *M. chiguila ined.*, *M. kichuana*, *M. llanganatensis*, *M. mercedesiarum ined.*, *M. mindoensis ined.* and *Magnolia vargasiana*) including recovery trials *in situ* in the Río Zuñac reserve, Tungurahua province.

## Georgia

BGCI consolidated its long-standing partnership in Georgia with the National Botanic Garden of Georgia and the Institute of Botany of Ilia State University. Integrated *ex* and *in situ* conservation projects are being implemented for the threatened Georgian almond (*Amygdalus georgica*) and the Nitre bush (*Nitraria schoberi*). In 2015, a new project was initiated in collaboration with Stone Lane Gardens, UK and Ilia State University to bring the Endangered *Betula megrelica*, an endemic

birch in northeast Georgia, into *ex situ* conservation collections. Equally, measures for *in situ* protection are being explored, including the development of a series of public outreach activities to raise awareness of the value of the local flora. A new population of *Betula megrelica* was discovered during an expedition to the Askhi mountains in Samegrelo. This increases the number of main sites in which this threatened species is found to three, with the possibility of trees existing in further locations.



## Ethiopia

BGCI initiated a new project in Ethiopia with Wondo Genet College Arboretum and Gullele Botanic Garden. Working in collaboration with the University of Oxford's Harcourt Arboretum, a Level IV ArbNet accredited institution, BGCI is helping our Ethiopian partner institutions to improve their conservation collections of threatened Ethiopian trees and achieve Level II

ArbNet accreditation. The four-tiered ArbNet accreditation programme is led by The Morton Arboretum and recognizes standards of professionalism and excellence in tree-focused gardens. For more information visit: <http://www.arbnet.org/>.

## Global action plan for the conservation of *Zelkova* spp.

Research and practical conservation work continued for the six species in the genus *Zelkova* (*Z. sicula*, *Z. abelicea*, *Z. sinica*, *Z. carpinifolia*, *Z. schneideriana* and *Z. serrata*). In collaboration with the University Botanic Garden and the Natural History Museum of Fribourg, Switzerland, and numerous partners in Europe, the Caucasus and East Asia, activities undertaken in 2015 comprised further field surveys of the three East-Asian species including conservation status assessments, collection of plant material, propagation trials (especially *Z. sicula*) as well as establishing *ex situ* conservation collections and long-term *in situ* monitoring plots for *Z. abelicea* in Crete. An excellent model of a multi-disciplinary, international conservation partnership, this project was presented at the 7th European Botanic Gardens Congress (EuroGard VII) (see above).



## Global Oak Conservation Partnership

BGCI and The Morton Arboretum, Chicago, have a Memorandum of Understanding to work together on global tree conservation. In 2015, The Morton Arboretum launched a project to complete red list assessments for all of the world's oak species. Planning also began for a wider Global Oak Conservation Partnership that, in collaboration with BGCI, FFI and our networks of partners, will establish conservation projects for threatened oaks in North America, China and Mexico, all of which hotspots of oak diversity.

## Global Ebony Assessment

The Global Ebony Assessment is led by Missouri Botanical Garden and aims to improve understanding of ebony diversity worldwide and promote their conservation. Contributing to this, in 2015 BGCI carried out a survey of ebony (*Diospyros*) collections held in botanic gardens, arboreta and seedbanks worldwide. A report will be published in early 2016.

## The Ecological Restoration Alliance of Botanic Gardens

The Ecological Restoration Alliance of Botanic Gardens (ERA) is a global consortium of botanic gardens actively engaged in ecological restoration. Members of the Alliance have agreed to support efforts to scale up the restoration of damaged, degraded and destroyed ecosystems around the world, contributing to the Sustainable Development Goals and the United Nations' target to restore 15 per cent of the world's degraded ecosystems by 2020.

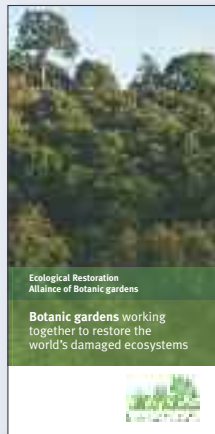
Barney Wilczak

ERA's mission is:

*"To mobilize botanic gardens, arboreta and seed banks to carry out science-based ecological restoration by marshalling their expertise, networks, and resources to help achieve the restoration outcomes needed for human well-being and a sustainable future for life on Earth."*

ERA's goals are to:

1. Work with local partners to set up, maintain and document a series of **long term sustainable exemplar restoration projects** in diverse biophysical, political, and cultural contexts around the globe that provide training and demonstrate the value of a carefully designed, science-driven approach to sustainable ecological restoration.
2. Improve the quality and volume of science-based ecological restoration practice by deploying scientific and horticultural skills to **applied work on the ground**.
3. Conduct ecological restoration research, to **develop an enhanced knowledge base for restoration** and identify and inform best practice.
4. **Disseminate research and lessons learnt from projects**.
5. **Build expertise and restoration capacity** through collaborations between botanic gardens, large and small, as well as with partners in local communities, professional societies, academia, industry, government, NGOs and international bodies.



The ERA currently has 20 member botanic gardens carrying out ecological restoration projects in a diverse range of ecosystems. It is coordinated by BGCI.

In March, 2015, the Ecological Restoration Alliance of Botanic Gardens (ERA) held its **fourth international meeting in Amman, Jordan**, hosted by the newly established Royal Botanic Garden (RBG) of Jordan. Three regional working groups were launched, for the Middle East, East Africa, and Latin America, and partnerships were forged to support RBG Jordan, and similar restoration initiatives in Oman, Syria, Kenya, and Uganda. A one-day public symposium was also organized in Amman as part of this meeting. Attended by over 100 people, this was the most significant public meeting on ecological restoration held to date in the Middle East. A communications strategy for regional outreach was agreed upon, including translation of key SER documents into Arabic to promote public awareness in Jordan, and regionally, in support of existing conservation and restorative actions and to promote greater integration of science-based and livelihood-generating ecological restoration programs in government policies.

In October, ERA held its **fifth international meeting in Edinburgh, U.K.**, hosted by the Royal Botanic Gardens, Edinburgh. This meeting was an opportunity for setting targets that will drive us towards achieving ERA goals, whilst contributing to national and international policy targets. Five long-term goals were agreed upon, each with their own objectives for 2020. These will be published in a five year ERA strategy in early 2016. Meeting participants unanimously approved the appointment of Dr. Paul Smith, Secretary General of BGCI, as ERA Chair. BGCI will continue to coordinate activities of ERA, and was congratulated for its work to drive ERA forwards in 2015. This included securing >US\$120,000 for ERA-related activities including practical forest restoration projects led by partner gardens in East Africa. Membership of 11 additional gardens was approved by the group.





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These institutions will be formally invited to join ERA at the start of 2016. Their acceptance will increase membership to 31 institutions. Membership will continue to be expanded to ensure a diverse range of ecosystems, geographic areas and complementary expertise are covered by ERA. The ERA meeting in Edinburgh was followed by an evening lecture from Mark Webb, CEO of Kings Park and Botanic Gardens in Australia, and a member of the ERA Executive Council. The lecture focused on the pioneering and large scale restoration work their institution is undertaking in collaboration with mineral extraction industries, in dryland habitats of Western Australia and the Middle East. We would like to thank the Royal Botanic Gardens of Jordan and Edinburgh for hosting this years' meetings.

### Forest restoration in East Africa

In 2015, BGCI continued to support botanic gardens in East Africa to carry out forest restoration projects that incorporate indigenous species with livelihood value and species of conservation concern. Working in collaboration with Brackenhurst Botanic Garden in Kenya and Tooro Botanical Garden in Uganda, over 50 acres have been brought under restoration over the past three years, and 44,000 tree seedlings have been supplied free of charge to neighbouring communities to encourage adoption of a wider mix of indigenous species. BGCI is working to strengthen links between botanic gardens and government agencies, NGOs and international bodies operating in the region, to promote the role of botanic gardens in forest restoration, to increase adoption of indigenous species in planting schemes and to improve seed and seedling supply of indigenous species. At the end of 2015, an additional two years' of project funding was secured by BGCI to continue supporting the forest restoration activities of East African botanic gardens.

If you would like to find out more about ERA, please visit our website at [www.erabg.org/](http://www.erabg.org/)



## The International Plant Sentinel Network

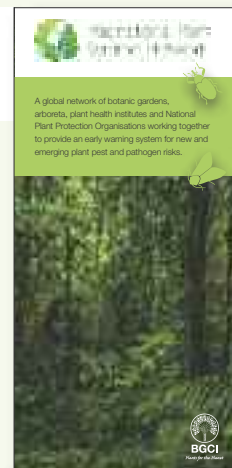
The increasing globalization of trade in plants and plant material, together with the impacts of climate change, has led to an increase in the introduction and spread of new and damaging plant pests and pathogens. Past examples of the devastating impact these organisms can have on plant populations, such as Dutch elm disease on UK elm trees and the emerald ash borer on U.S. ash populations, illustrate the significant threat these alien pests and pathogens pose to global plant health.

The International Plant Sentinel Network (IPSN) is being developed to facilitate collaboration amongst institutes around the world, with a focus on linking botanic gardens and arboreta, National Plant Protection Organizations (NPPOs) and plant health scientists. The aim is for these institutes to work together in order to **provide an early warning system** for new and emerging pest and pathogen risks. Member gardens are helping to provide scientific evidence regarding known quarantine organisms and potential new risks to NPPOs in order to inform plant health activities and thus help safeguard susceptible plant species worldwide.

The IPSN aims to:

- Seek and share examples of best practice;
- Develop standardised methodologies for monitoring and surveying of damaging plant pests and pathogens;
- Provide training materials to increase capability among member gardens;
- Facilitate access to diagnostic support;
- Develop databases in order to share and store information;
- Communicate scientific evidence with NPPOs.

The IPSN Network now includes **27 botanic gardens in 12 countries**. Training resources developed by the IPSN include: Biosecurity guides; Pest and disease identification guides; and Tools for surveying infested/diseased trees. If you would like to join this network, see [www.plantsentinel.org/](http://www.plantsentinel.org/)



# Financial and other support provided by BGCI to botanical institutions in 2015

In 2015, BGCI disbursed a total of US\$920,000 to support projects, training and other activities in botanic gardens. A total number of 155 institutions benefited directly from BGCI support. Lists of institutions that received support from BGCI can be found below.

## Participants in BGCI training courses, 2015

| Institution   | Country    | Topic                           | Institution   | Country     | Topic             |
|---|------------|---------------------------------|---|-------------|-------------------|
| Jardín Botánico de Vallarta   | Mexico     | Plant health                    | Xishuangbanna Tropical Botanical Garden, CAS  | China       | Policy - ABS      |
| Jardín Botánico Todos Santos (Ensenada)   | Mexico     | Plant health                    | Center for Plant Conservation, Bogor Botanic Gardens - Indonesian Institute of Sciences               | Indonesia   | Policy - ABS      |
| Jardín Botánico y Herbario  | Mexico     | Plant health                    | Bali Botanic Gardens - Indonesian Institute of Sciences   | Indonesia   | Policy - ABS      |
| CNPS-Baja Chapter   | Mexico     | Plant health                    | Purwodadi Botanic Gardens - Indonesian Institute of Sciences  | Indonesia   | Policy - ABS      |
| Nativos, CNPS-Baja Chapter  | Mexico     | Plant health                    | Cibodas Botanic Gardens - Indonesian Institute of Sciences  | Indonesia   | Policy - ABS      |
| Benjamin F. Johnston Botanical Garden   | Mexico     | Plant health                    | Tsukuba Botanical Garden, National Museum of Nature and Science                                       | Japan       | Policy - ABS      |
| Jardín Botánico Culiacán  | Mexico     | Plant health                    | Pha Tad Ke Botanical Garden   | Laos        | Policy - ABS      |
| Tooro Botanical Garden  | Uganda     | Policy - GSPC & seed collection | Forest Research Centre, Sabah Forestry Department, Sandakan   | Malaysia    | Policy - ABS      |
| Nature Palace Botanical Gardens   | Uganda     | & Policy - GSPC seed collection | Flora Biodiversity Programme, Forest Biodiversity Division, Forest Research Institute Malaysia (FRIM) | Malaysia    | Policy - ABS      |
| Uganda Plant Genetic Resource Centre (NARO) & Entebbe Botanic Gardens                             | Uganda     | Policy - GSPC & seed collection | Forest Research Institute, Forest Department  | Myanmar     | Policy - ABS      |
| National Environmental Management Authority   | Uganda     | Policy - GSPC                   | MCME-CFNR   | Philippines | Policy - ABS      |
| PROTA   | Uganda     | Policy - GSPC                   | University of the Philippines, Los Baños  |             |                   |
| National Forest Resources Research Institute (NAFORRI)  | Uganda     | Policy - GSPC & seed collection | Gardens by the Bay  | Singapore   | Policy - ABS      |
| Natural Chemotherapeutics Research Laboratory   | Uganda     | Policy - GSPC                   | Singapore Botanic Gardens   | Singapore   | Policy - ABS      |
| Anamed  | Uganda     | Policy - GSPC                   | Dr. Cecilia Koo Conservation Center, Department of Life Science, National Tsing Hua University        | Taiwan      | Policy - ABS      |
| Uganda Forest Working Group   | Uganda     | Policy - GSPC                   | The Botanical Garden Organisation / Queen Sirikit Botanic Garden                                      | Thailand    | Policy - ABS      |
| IUCN, Uganda Office   | Uganda     | Policy - GSPC                   | Nong Nooch Botanical Garden   | Thailand    | Policy - ABS      |
| Uganda Farmers Alliance   | Uganda     | Policy - GSPC                   | Bidoup-Nuiba National Park  | Vietnam     | Policy - ABS      |
| Uganda Wildlife Education Centre  | Uganda     | Policy - GSPC                   | The Australian Botanic Garden, Mount Annan  | Australia   | Policy - ABS      |
| Nature Uganda   | Uganda     | Policy - GSPC                   | National Botanical Gardens Foundation / Botanical Gardens   | Seychelles  | Policy - ABS      |
| Makerere University   | Uganda     | Policy - GSPC & seed collection | Jardín Botánico Bariloche   | Argentina   | Seed conservation |
| Bioersity International, Uganda   | Uganda     | Policy - GSPC                   | INTA EEA Salta  | Argentina   | Seed conservation |
| Uganda Wildlife Authority   | Uganda     | Policy - GSPC & seed collection | Jardín Botánico de Córdoba  | Argentina   | Seed conservation |
| PROMETRA Uganda   | Uganda     | Policy - GSPC                   | UNaM-IBS-CONICET  | Argentina   | Seed conservation |
| ECOTRUST  | Uganda     | Policy - GSPC                   | Instituto Nacional de Tecnología Agropecuaria (INTA)  | Argentina   | Seed conservation |
| Mountains of the Moon University  | Uganda     | Seed collection                 | Banco de Germoplasma de Especies Nativas - INEAH UNSalta  | Argentina   | Seed conservation |
| National Forestry Authority, Tree Seed Centre   | Uganda     | Seed collection                 | Facultad de Agronomía, Universidad de Buenos.   | Argentina   | Seed conservation |
| Ministry of Environment, Madagascar   | Madagascar | Policy - GSPC                   | Arboretum Parque Doña Inés, Fundación Luis Muñoz Marín  | Argentina   | Seed conservation |
| Ministry of Water and Forests, Cameroon   | Cameroon   | Policy - GSPC                   | PROPLAME-PRHIDEB (CONICET); Departamento de Biodiversidad y Biología Experimental, FCEN, UBA          | Argentina   | Seed conservation |
| UNESCO, Haiti   | Haiti      | Policy - GSPC                   | Reserva ecológica Costanera Sur   | Argentina   | Seed conservation |
| Jardin Botanique  | La Reunion | Policy - GSPC                   |   |             |                   |
| Ministry of Water and Forests, Mali   | Mali       | Policy - GSPC                   |   |             |                   |
| Jardin botanique de Kara  | Togo       | Policy - GSPC                   |   |             |                   |
| Jardin botanique de Kisantu   | DR Congo   | Policy - GSPC                   |   |             |                   |
| Ministry of Water and Forests, Senegal  | Senegal    | Policy - GSPC                   |   |             |                   |
| Université des Comores  | Comores    | Policy - GSPC                   |   |             |                   |
| Department of Biodiversity, National Council for Sustainable Development, Ministry of Environment | Cambodia   | Policy - ABS                    |   |             |                   |
| National Authority for Preah Vihear (NAPV)  | Cambodia   | Policy - ABS                    |   |             |                   |



| Institution   | Country   | Topic              |
|---|-----------|--------------------|
| Municipalidad de Villa Elisa  | Argentina | Seed conservation  |
| CENPAT-CONICET  | Argentina | Seed conservation  |
| Jardín Botánico Carlos Thays  | Argentina | Seed conservation  |
| Universidad Nacional del Sur  | Argentina | Seed conservation  |
| Shenzhen FairyLake Botanical Garden, Shenzhen and CAS   | China     | Plant health       |
| South China Botanical Garden, CAS   | China     | Plant health       |
| Xishuangbanna Tropical Botanical Garden, CAS  | China     | Plant health       |
| Xiamen Botanical Garden   | China     | Plant health       |
| Nanjing Sun Yat-sen Botanical Garden, Nanjing and CAS   | China     | Plant health       |
| Shanghai Chenshan Botanical Garden  | China     | Plant health       |
| Chengdu Botanical Garden  | China     | Plant health       |
| Dongguan Botanical Garden   | China     | Plant health       |
| Hong Kong's Agriculture, Fisheries and Conservation Department                                  | China     | Plant health       |
| Beijing Summer Palace   | China     | Plant health       |
| Guilin Botanical Garden, Guangxi and CAS  | China     | Plant health       |
| SunGang Entry-Exit Inspection and Quarantine Bureau   | China     | Plant health       |
| Inspection and Quarantine Center of Entry and Exit Inspection and Quarantine Bureau of Shenzhen | China     | Plant health       |
| Shenzhen Urban Management Bureau  | China     | Plant health       |
| Shenzhen xiangbin Termite Control co., LTD  | China     | Plant health       |
| Guangdong Zhonglv Landscaping Group Co., LTD  | China     | Plant health       |
| Shenzhen Guoyi Landscape Construction Co., LTD  | China     | Plant health       |
| Shenzhen Pingshan District Urban Management Bureau  | China     | Plant health       |
| Shenzhen Longhua District Urban Management Bureau   | China     | Plant health       |
| Shenzhen Risheng Landscaping Co., LTD   | China     | Plant health       |
| College of Life Science, Zhejiang University  | China     | Plant conservation |
| Zhoushan Institute of Forestry  | China     | Plant conservation |
| Forestry Technicians from forestry Stations of Daishan, Shengsi counties etc., Zhoushan city    | China     | Plant conservation |
| Zhejiang Institute of Forestry  | China     | Plant conservation |
| Hunan Forestry Botanical Garden   | China     | Plant conservation |
| Dongguan Botanical Garden   | China     | Plant conservation |
| Emeishan Botanical Garden   | China     | Plant conservation |
| Dongguan institute of Forestry  | China     | Plant conservation |
| Kunming Botanical Garden, CAS   | China     | Plant conservation |

| Institution                                   | Country       | Topic             |
|---|---------------|-------------------|
| Addis Ababa University                        | Ethiopia      | Tree conservation |
| Adigrat University                            | Ethiopia      | Tree conservation |
| Arba Minch University                         | Ethiopia      | Tree conservation |
| Bahidar University                            | Ethiopia      | Tree conservation |
| Debrebirhan University                        | Ethiopia      | Tree conservation |
| Debremarkos University                        | Ethiopia      | Tree conservation |
| Forest Research Institute                     | Ethiopia      | Tree conservation |
| Ethiopian Biodiversity Institute              | Ethiopia      | Tree conservation |
| Gondar University                             | Ethiopia      | Tree conservation |
| Gullele Botanic Garden                        | Ethiopia      | Tree conservation |
| Haramaya University                           | Ethiopia      | Tree conservation |
| Jimma Botanic Garden                          | Ethiopia      | Tree conservation |
| Shashamene Botanic Garden                     | Ethiopia      | Tree conservation |
| Wondo Genet College Arboretum                 | Ethiopia      | Tree conservation |
| Wondo Genet Agricultural Research Centre      | Ethiopia      | Tree conservation |
| Mallet Court Nursery                          | USA           | Red listing       |
| Shanghai Chenshan Botanical Garden            | China         | Red listing       |
| Arboretum De La Bergerette                    | France        | Red listing       |
| Kunming Botanical Garden                      | China         | Red listing       |
| Chicago Botanic Garden                        | USA           | Red listing       |
| International Oak Society                     | International | Red listing       |
| Native Tree Society                           | USA           | Red listing       |
| Trees, Forests & Landscapes                   | USA           | Red listing       |
| Taltree Arboretum and Gardens                 | USA           | Red listing       |
| Bartlett Tree Research Laboratories Arboretum | USA           | Red listing       |
| Cornell University                            | USA           | Red listing       |
| City of Columbia, Missouri                    | USA           | Red listing       |
| Forest Preserve District of Dupage.           | USA           | Red listing       |
| The Polly Hill Arboretum                      | USA           | Red listing       |
| Cincinnati Zoo and Botanical Garden           | USA           | Red listing       |
| Tharandt Arboretum                            | Netherlands   | Red listing       |
| Office National des Forets                    | France        | Red listing       |
| Pouyouleix Arboretum                          | France        | Red listing       |
| University of Colorado                        | USA           | Red listing       |
| Longwood Gardens                              | USA           | Red listing       |
| Royal Botanic Gardens, Kew                    | UK            | Red listing       |
| University of Illinois                        | USA           | Red listing       |
| University of Notre Dame                      | USA           | Red listing       |
| UBC Botanical Garden                          | Canada        | Red listing       |
| Cornell University                            | USA           | Red listing       |
| Univ. of Tennessee / Morton Arboretum         | USA           | Red listing       |



## Botanic gardens and other institutions supported by BGCI with funding in 2015

| Institution   | Country        |
|---|----------------|
| Jardín Botánico Carlos Thays  | Argentina      |
| Fundacao Flora de Apolo a Botanica  | Brazil         |
| Department of Biodiversity, National Council for Sustainable Development, Ministry of Environment | Cambodia       |
| National Authority for Preah Vihear (NAPV)  | Cambodia       |
| Chengdu Institute of Biology, CAS   | China          |
| Chengdu Kanghua Community Development Center  | China          |
| College of Life Science, Zhejiang University  | China          |
| Guilin Botanical Garden, Guangxi and CAS  | China          |
| Kunming Botanical Garden, CAS   | China          |
| Shangri-La Alpine Botanical Garden  | China          |
| Shenzhen FairyLake Botanical Garden, Shenzhen and CAS   | China          |
| South China Botanic Garden  | China          |
| Tarim University, Xinjiang  | China          |
| Turpan Eremophytes Botanic Garden, CAS  | China          |
| Xi'an Botanical Garden  | China          |
| Xiaojie Primary School, Xishuangbanna   | China          |
| Xinjiang Botanical Society  | China          |
| Xishuangbanna Tropical Botanical Garden, CAS  | China          |
| Yunnan Institute of Environment   | China          |
| Zhoushan Institute of Forestry  | China          |
| Wondo Genet College Arboretum   | Ethiopia       |
| Institute of Botany Ili State University  | Georgia        |
| National Botanic Garden of Georgia  | Georgia        |
| Royal Botanic Gardens   | Jordan         |
| Brackenhurst Botanic Garden   | Kenya          |
| National Museums of Kenya   | Kenya          |
| Pha Tad Ke Botanical Garden   | Laos           |
| Forest Research Institute, Forest Department  | Myanmar        |
| International Institute of Tropical Agriculture (IITA) – Forest Unit                              | Nigeria        |
| Government College University Botanic Garden  | Pakistan       |
| MCME-CFNR University of the Philippines, Los Baños  | Philippines    |
| University of Fribourg Botanic Garden   | Switzerland    |
| Tooro Botanical Garden  | Uganda         |
| Stone Lane Gardens  | United Kingdom |
| University of Bournemouth   | United Kingdom |
| Bidoup-Nuibia National Par  | Vietnam        |



Barney Wilczak



## 12 new reasons to be a member in 2016

New services for our members that we will deliver in 2016 include the following:

- 1** BGCi's Botanic Garden Manual launched on the website (Spring 2016).
- 2** Review of work of BGCi and botanic gardens against the Sustainable Development Goals published.
- 3** Development of a Members Area on BGCi's website in which member gardens will get exclusive access to BGCi products in some cases, and advanced access in others.
- 4** The launch of 'ThreatSearch', the most comprehensive database of threatened plants in the world – initially only fully available to members.
- 5** The development and launch of Advanced PlantSearch which will allow members to access information on who holds which taxa in their collections on an opt in/opt out basis, and an additional accessions-level module to be developed towards a 2017 launch.
- 6** Launch of BGCi's Twinning Programme – only open to members- that matches gardens with common interests and the desire to share ideas, expertise and resources.
- 7** The first geo-referenced list of all tree taxa completed and launched as 'GlobalTreeSearch'. Some elements open to all, others for BGCi members only.
- 8** BGCi training courses 2016. Two international training courses in Ecological Restoration and two courses in Seed Conservation. At least one course in Modern Plant Conservation Techniques.
- 9** BGCi's botanic garden accreditation scheme for excellence in plant conservation practice is developed towards a 2017 launch, including a community-wide tool to gather and compare conservation and research programme metrics.
- 10** Launch of the North American Plant Conservation Initiative, aimed at finding synergies and filling regional-level gaps in plant conservation capacity across North America. Efforts will begin with a North American threatened species *ex situ* gap analysis and support the development of regional prioritization and coordination of *ex situ* plant conservation activities.
- 11** Launch of the Care for the Rare mobile app which members can use to create a mobile app tour of threatened plants in their collections.
- 12** Launch of a new Collections Assessment Service that can place gardens in global, national and local contexts, and help gardens identify collection strengths, gaps, priorities and collaborative opportunities with other collections.

If your institution is not already a member of BGCi, then you are missing out!  
Here is where you can join us [www.bgci.org/joinin/members/](http://www.bgci.org/joinin/members/)





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