

Dear Friends,

How quickly the months have flown past since our AGM in May. In retrospect, we really were so lucky to have had such a warm, sunny weekend – the subsequent months have not exactly been summer-like!



What a pleasure it has been reading all your articles for this – the 14th issue of our newsletter. There has been so much going on in all your gardens and what really emerges as a common theme is the extraordinary volunteering contribution to our member gardens – whether as part of Friends' groups, but also volunteer involvement in other areas – garden, herbarium, conservation. Friends of Sheffield Botanic Gardens are particularly interested to hear how other gardens recruit, train and oversee garden volunteers – Lloyd Snellgrove, one of their committee has pulled together a questionnaire which I will shortly be circulating.

Next, I want to say farewell to Caroline Clutton-Brock – representative from Birmingham Botanic Garden – she is moving on to be an Ambassador for the garden. Caroline has been a stalwart supporter of the FBGF ever since we had our first UK meeting at Durham in 2019. She arranged for us to hold our second face to face meeting at the Birmingham Garden in 2022, and she joined us in Wales. I wish Caroline every success in her new role and look forward to meeting Birmingham's new representative via zoom in a few weeks' time.

I am also introducing Stephen Lyus, Chair of the Liverpool Botanical Trust – those of you who were at our AGM in May will have met Stephen already. I am sure we will hear more about this remarkable collection of plants in future issues. I am also pleased to welcome our newest member – Friends of Clyne Gardens, Swansea. Richard Owen has written a brief introduction to the history of the gardens, and the accompanying photographs will encourage readers to make a trip to the Swansea area of Wales (not forgetting also the Swansea Botanic Garden which is close by)

I recently had a zoom meeting with Kevin Frediani, Curator of the University of Dundee Botanic Garden. He mentioned that he had recently attended the International Congress of Historic Botanic Gardens in Vienna. I am grateful to him for contributing a summary of his presentation to this issue – it will undoubtedly provide food for thought and discussion.

And that leads me to WRAGS – some of you will have heard of WRAGS – but like myself, until I met Caroline (a fellow garden guide at the RBGE) I had not heard of this organisation. The young newcomer to horticulture is full of enthusiasm for her new career and her placement with the RBGE has had a very successful outcome.

You will also find a new section in the newsletter – a book review – and with Christmas looming, this looks like a perfect present for the plant lovers' in your life.

On that note, can I wish you, even in mid-October, a happy and peaceful festive period and very best wishes for 2025.

Shiona

Upper photo: Colchicum speciosum RBGE

Lower Photo: Bird's Nest Fungi RBGE

Front and back page photographs: The Generator Garden. And *Gentiana lutea*. St Andrew's Botanic Garden. Bekki Gorgon

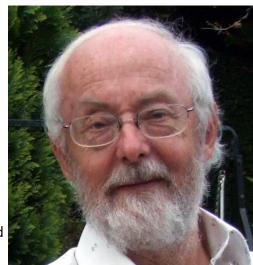
Stephen Lyus

Liverpool Botanical Trust

I retired in 2009 from a lifetime working in the software industry and came to the Wirral to create a garden for the many ericaceous plants I had propagated over the previous several years.

Since my arrival here, I have spent 10 years as a volunteer at Ness Botanic Gardens, aiding the then botanist, Tim Baxter, manage their gardens and collections. I am also an RHS Camellia Show Judge, am on the Botanicals sub-committee of Sefton Park Palm House and a volunteer in the World Museum Herbarium.

Latterly, I masterminded the creation of the Liverpool Botanical Trust to safeguard the heritage of Liverpool Botanic Gardens, which I had been researching for the last ten years.



Photograph: Stephen Lyus

WRAGS

I am often asked 'What is a WRAGS trainee?' It stands for 'Work and Retrain as a Gardener Scheme' - a pioneering training scheme enabling people to change career into the horticultural sector. As a paid two day a week practical training, WRAGS candidates can

downsize their existing job to three days and train simultaneously or they can study horticulture at a college or online with the RHS whilst training. The Scheme runs over the course of a year in either a private or public garden with a head gardener or garden owner who imparts their knowledge to the trainee as they work to achieve a list of practical skills set out by the WFGA. Over the long life of the Charity, many hundreds of career changers have been helped into the UK horticultural sector encompassing a huge range of possibilities.

In October 2023, the RBGE agreed to take on a trainee. Sally King had been working in the Herbarium and was keen to change career. She is now coming to the end of her year's training and I asked her for a resume of her experience in the gardens...

"RBGE as a placement garden has given me the opportunity to get hands-on experience in a very wide range of horticultural specialisms: arboriculture, nursery propagation, rock garden and alpine plants, herbaceous, along with tropical, temperate and arid glasshouses and market gardening. I've been actively working with an ex-situ conservation collection which wouldn't be possible outside a botanical garden with wild collected plants. I really wanted to experience horticulture with a strong emphasis on biodiversity and conservation as its key focus. One big highlight was a field trip to plant out threatened conifers in an ex-situ conservation site as part of the International Conifer Conserv ation Programme. I've taken part in plant identification walkarounds and assessments with HND students and attended some of the Certificate in Practical Horticulture sessions as part of my professional development training. I am incredibly grateful to have had this experience, it's been absolutely amazing. It enabled me to secure my Kitchen Garden Horticultural Assistant post, where I've taken charge of developing a new area of the kitchen garden. I look forward to Mondays at the end of the weekend, doing a WRAGS placement has been life-changing."



Life changing is what many people feel about their time as a WRAGS trainee and I feel hugely privileged to have helped them find a suitable placement. We are of course always keen to find new gardens to help us secure enthusiastic horticulturists to preserve our world. Without plants we would not exist.

For more information, please do visit www.wfga.org.uk

Caroline Straker, Garden Guide, RBGE

Photographs: Sally King

The Friends of Clyne Gardens





Clyne Gardens is one of Swansea and South Wales best-kept secrets. The current park was formed from the landscaped gardens created by Glynn Vivian who purchased the castle in 1860. The estate passed to his nephew Algernon, 'The Admiral' in 1921 who owned it until his death in 1952. He brought seeds and cuttings from all over the world, so there are many non-native trees and plants. The tallest recorded white Magnolia in Britain 'Magnolia Campbellii var. alba' is located here.

Today it is managed by the City Authorities and is free to enter. From the impressive collections of rhododendrons and azaleas to the massive botanical plants, non-native trees and the carpet of bluebells and wild garlic, it's a fantastic place for all ages. The higher fields afford magnificent views across Swansea Bay which has been likened to the bay of Naples!

Just a few years prior to the pandemic – Swansea City Council were asking like minded individuals whether a Friends Group could be set up and a public meeting was convened to gauge support. There was a good turnout and like many councils, budgets were being reduced and everybody agreed that they didn't want to see the quality of the gardens reduce. So with the financial help of the council, a Friends Group was put in place, the majority of those there that night were signed up as members and a committee was put together.

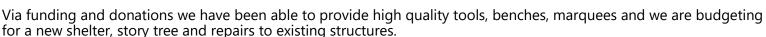
As all new committees – we needed to put things together like a constitution, what were the roles of the individuals etc. etc. The constitution was going to be a significant document as that sets out really what we wanted to achieve. We wanted to maintain or hopefully improve the quality of the gardens for the local community and future generations but also attract attention from the wider community. During the pandemic Clyne came into it's own as a haven for doing your daily walk and all round mental wellbeing.

There is no doubt that we are not a group who get 'boots on the ground' as we don't want to impinge on the valiant work are gardeners under the leadership of Teifion Davies are doing. Instead we are a fundraising outfit who through events and donations raise money to top up the requirements of the staff and the park.

We wanted to reinstate the May in Bloom celebrations which showcased the park in all its spring glory.

We have been fortunate in getting funds from the Lottery, government levelling up schemes, Mumbles Community Council and local counsellors. But it is an on-going effort.

Various bands, craft fairs and children's activities take place every Sunday in May and also August Bank Holiday –and we have a loyal and growing following.



We'd love to see you – and of course ,it's free!!



Photographs: Friends of Clyne Gardens

clynegardens.co.uk

https://www.facebook.com/friendsofclyne



The Role of Botanic Gardens in the future

The emerging role of botanic gardens is exemplified by the work of the University of Dundee Botanic Garden, whose recent contributions were highlighted at the 2nd International Congress of Historic Botanic Gardens in Vienna. The garden's curator delivered a talk that underscored the shifting priorities of botanic gardens and their growing influence on conservation, scientific research, and public education.

Botanic Gardens as Biodiversity Guardians

One of the core themes from the recent history of Botanic Garden's has been the shift in awareness under the collective direction of BGCI of the critical role these institutions play in the conservation of biodiversity. With the planet's biodiversity under unprecedented threat, botanic gardens are stepping up as living repositories for plant species. The University of Dundee Botanic Garden, for instance, has supported this work through cultivating rare and endangered plants, ensuring the survival of species that are at risk in the wild. Locally aligning conservation to its core ecological displays at the University of Dundee Botanic Garden, resulting in a publication of its work regarding its native plants area and Target 8 of the Global Strategy for Plant Conservation (Hood & Reaney, 2013).

This conservation role has been especially pertinent as climate change and habitat destruction threaten ecosystems globally. Botanic gardens are not just collecting and preserving plants for scientific curiosity; but also becoming key players in efforts to restore native habitats, repopulate endangered species, and provide data for climate resilience studies. The local work complimenting global conservation efforts, that have emphasized the importance of international collaboration between gardens in different regions, exchanging plant material and expertise to bolster global conservation efforts (BGCI, 2023).

Climate Research and the Future of Botanic Gardens

The authors talk in Vienna also afforded opportunity to explore the role of botanic gardens as living laboratories for climate research, for education for sustainability and a potential role as a canvas to explore STEAM subjects (Art being arts and design in the attempt to compliment the unconscious bias to Science, Technology, Engineering and Math). The University of Dundee Botanic Garden is actively participating in a pan European initiative called Urban ReLeaf that is aimed at studying how plants respond to changing environmental conditions in our cities (https://urbanreleaf.eu/). A project that benefits from the gardens maintenance of a diverse collection of plants from various climates and regions, which have had their ecosystem services and benefits recently evaluated (Frediani, Rogers, & Screech, 2024). While this work is now used to help inform and interpret the gardens continued monitoring of the impact of the changing environment through the effects of temperature shifts, drought, and other climate-related factors that the living collection is experiencing.

Through partnerships with research institutions, Dundee's garden has begun to contribute to studies that predict how ecosystems may evolve in response to climate change. Botanic gardens, can bridge the gap between academic research and practical, onthe-ground conservation. This shift in focus is positioning gardens like Dundee's as vital centres for ecological resilience and adaptation strategies.

Education and Community Engagement

While research and conservation are key roles for modern botanic gardens, public education remains a fundamental aspect of their mission. The University of Dundee Botanic Garden has been a regional leader in fostering environmental awareness and education within its community. The garden's educational programs, which span from school visits to adult workshops, aim to instil a deeper understanding of plant biology, conservation, and sustainability.

At the Congress, the Dundee curator highlighted the need for gardens to expand their educational offerings, reaching diverse audiences. Public gardens are in a unique position to engage the public with pressing environmental issues, from climate change to the protection of natural resources. In an era where many people live disconnected from nature, botanic gardens serve as crucial links that reconnect individuals with the environment, cultivating a sense of stewardship and responsibility.

A Global Movement

The University of Dundee Botanic Garden's participation in the 2nd International Congress of Historic Botanic Gardens reflects its commitment to playing an active role in shaping the future of botanic gardens. By embracing conservation, research, and education, botanic gardens like Dundee's are moving beyond their traditional roles as mere plant collectors. They are becoming dynamic institutions that contribute to addressing some of the most urgent challenges of our time. As these gardens collaborate on a global scale, they reinforce the notion that preserving plant biodiversity is not just a local concern but a shared responsibility across nations and generations.

References

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Cruickshank Botanic Garden

Summer event: Afternoon Tea with Friends

A lovely gathering of around 80 Friends and their family / friends supported the event we held in CBG on Saturday 10 August. The good weather held and the Garden provided a wonderful setting full of colour and scent. There was a delicious spread of home baking to choose from and a plant sale courtesy of Richard and Ellen Firmin in aid of the conservation charity, Flora and Fauna.

Makeover for the Friends' Summerhouse



It's a brand new look for the summerhouse and you cannot fail to miss it! The building, funded by the Friends in 1984, had fallen into disrepair and last year Estates & Facilities carried out essential joinery work. However, it was still in quite a sorry state as you can see in these before and after photos. Julie Young took the lead to give it a makeover, getting paint samples and putting out a call for volunteers. On the two



appointed painting days only a few people were available – but nevertheless, the job was completed on schedule. The eye-catching colour, lapis lazuli, was chosen by Mark Paterson, Curator, and the Garden Team. On seeing the finished result Mark said: 'The colour is lovely and I'm sure it will be all the more engaging in the winter months when there is less floral colour'.

Edna May Pyle

Photographs: Julie Young

University of Leicester Botanic Garden

It is now over two years since the Director of the Botanic Garden at Leicester University, and 10 months since the administrator-- that we jointly funded—retired, so it is any wonder that I feel I spend most of my time 'chasing my tail'. However, there are some positives to report.

As many of you know Nick Bailey was appointed as our part-time (one day a week) strategic director for one year. After visits to the garden, and discussions with the Director of the Botanic Garden Board, he has now moved on to sessions of 'Garden visioning' where different groups get to express what their aspirations are for our future Botanic Garden. The Friends were the first group to experience the visioning, and I was both amazed and delighted by the combined depth of knowledge they demonstrated—forget the bandstands, we are looking for a 'proper' welcoming, community engaging, educational experience, with lots of activities for families, amongst the many other good things that I hear about when we have our Forum discussions.

However, as you may have heard or read, this is not the best time for university funding, and it may take some time for the dream to be realised. On the other hand, the Garden Tour Guides have had their best season, in spite of the fact that the Education Lead in the Botanic garden guide had to take on the role of 'booking secretary' and the Head Guide has had to make the detailed arrangements with groups, as well as train a new volunteer guide.

Mary Campbell

Tree Recording with TROBI

For those who have never heard of TROBI (or Tree Register for short) the title means the Tree Register of Britain and Ireland. It is a huge database covering virtually every species of tree grown in the British Isles recording their height and girth and locality and searching for "Champions" of each species. A "Champion" is the largest known individual by girth, height or both. There are local (by county) champions and national (by each country) champions as well as any that are overall champions.

I first became interested in tree recording in the late 1980s, stimulated, at the time by TROBI founder Alan Mitchell. He wrote an article in a garden magazine about Ginkgo trees which suggested that large specimens were hardly known outside southern England. I thought - I know of some fairly big ones round here (East Yorkshire); went to measure them and sent him the records. He was impressed and from there I went on to measure many local trees for a couple of years or so and eventually composed a fair-sized register.

Thwaite Botanic Garden became by far my richest hunting ground as it contained many locally unique species and it was then that I first became involved with the garden, an involvement that has continued to this day. However, many

specimens were found elsewhere, including sometimes, in ordinary private gardens. Most householders are surprised when you knock and ask to measure one of their trees, but only once have I been refused. Some people already know something about their tree, but others have no idea at all of its value.

You might ask - what is the value of all this? Well, very early on it proved extremely useful with regard to Thwaite Gardens, because in 1990 a proposal was put forward to sell the botanic garden and build houses on the site. At the public enquiry the following year I produced my data as evidence of the value of the site. Alan Mitchell himself also wrote a letter in the garden's defence. I am sure that our contribution helped tip the balance in favour of refusing planning permission and saving the garden, because of which, it continues to this day.

Once I had compiled my local register, I stopped recording trees regularly but took it up again once I had retired. I joined up with Alan Hunton, whom I met through the 'Ancient Tree Inventory' (another allied database focused on very old trees). We started recording more widely in Yorkshire and have made pretty thorough surveys of places like The Yorkshire Arboretum at Castle Howard, Thorp Perrow Arboretum, Harewood House and many lesser -known collections - sometimes unearthing previously unnoticed champion trees. Since then, we have spread more widely into Lincolnshire, Lancashire,

Cumbria, Durham and this year, a week's expedition to Argyll in Scotland. So far, my personal furthest flung records are from the north-west corner of Skye, and with Alan - the Isle of Gigha. All our records are verified by Dr. Owen Johnson, the TROBI registrar.

Doing this job, you get to visit some fabulous places, see many wonderful trees and often meet very enthusiastic people who are extremely keen for you to do the surveys. Almost in a mirror of the Thwaite story, our work has sometimes been used to help save 'lost' gardens like Kilmory near Lochgilphead, Scotland, where they are trying to revive a wonderful old walled garden. It is very overgrown but contains some magnificent trees and Rhododendrons. These overgrown gardens are the ones I like surveying best of all!

Meanwhile, back at Thwaite, do we have any champions? Yes - many local ones as might be expected but also one or two national ones. The most remarkable is perhaps the English champion Japanese Wingnut (*Pterocarya rhoifolia*), though unfortunately, this and most of the others are on the part of the estate that was recently sold off.

You can read more about TROBI here: <u>The Tree Register</u>, although to access the data or record you have to become a member.

John Killingbeck

Photo: John Killingbeck with the Scottish champion Japanese Cedar (*Cryptomeria japonica*) Kilmory Gardens, Argyll.

Photo credit: Alan Hunton

Ventnor Botanic Garden Friends Society

Presentation of the Harold Hillier Award to Simon and Debs Goodenough

The Harold Hillier Award, which has been presented almost annually since 1980, is a glass and silver vase made by Isle of Wight Glass. It was given by the family of Sir Harold Hillier, who was responsible for the original planting in the garden after the demolition of the Royal National Hospital for Diseases of the Chest.

It was a great pleasure and privilege to present the Award to Simon and Debs this year, and doing so filled a huge gap in our 'Harold Hillier Hall of Fame'. The citation for the Award is for "outstanding contribution to horticulture on the Isle of Wight" and it would be hard to find anyone who fits that description better than Simon and Debs.

At Ventnor, working together, they created something very special indeed; not just the wonderful and innovative Botanic Garden which gave VBG an international reputation, but the huge group of loyal and passionate supporters, The Friends, who worked with them, raised huge amounts of money for their beloved garden, and had lots of fun along the way. VBG was truly a treasured part of the community. They shared knowledge, enthusiasm and skills with staff and volunteers alike; seeds were cleaned and distributed, 'Ventnor' cultivars

were propagated, wonderful things were planted and many projects were carried out – not just in Ventnor but across the Island, from traffic islands to hopvards.



Presentation of Harold Hillier Award

(L-R) Sally Peake, Simon and Debs

Goodenough, Val Pitts

After a few years Debs moved to Osborne House as Head Gardener and later became Head Gardener for (the then) Prince Charles at Highgrove.



Simon Goodenough

The couple were both working at Kew Gardens in London when, in 1986, the VBG Curator's post came up. They came to take a look, and fell in love with the Island. The job was Simon's. Soon after they arrived, however, the Island had a very severe winter then a summer drought, followed by the first of two hurricanes in the autumn of 1987. The Botanic Garden was devastated, losing much of its content. Simon took the opportunity to develop a very different and innovative garden, with naturalistic planting of Mediterranean zone flora, taking advantage of the unique microclimate of Ventnor.

Simon went on to be Curator of The National Botanic Garden of Wales and then Estate Manager at Folly Farm in Berkshire. The Goodenoughs are now retired but their legacy at VBG and elsewhere on the Island very much lives on. In the village on the Island where they live, they have made quite an impact on the local scene. A neighbour, Gillian Belben, said: "Simon and Debs set about looking after the borders on our Village Green, inserting all sorts of exotic and interesting plants so that we surely have the most beautiful and cared for Green on the Island. They help a team of gardening volunteers on four more community sites across the parish, sharing knowledge, giving seeds, cuttings and at times entire trees"

Thinking back to that exploratory visit that brought them to the Island, Gillian's final words sum it up for everyone: **How lucky we have been'.**

Val Pitts and Ros Whistance

Photographs: Rosemary Stewart

Volunteering at the National Botanic Garden Wales

We are delighted to report that our new head of Horticulture is now in situ. Don Murray, most recently a freelance consultant, with over two decades of senior 'nature and people focused' experience at Eden Project, Birmingham Botanical Gardens, Mount Stuart Trust and Garden Organic is settling in and we are looking forward to getting I nvolved in new horticultural projects.

Our Conservation group has been meeting weekly for over 10 years doing ongoing observation and recording of flora and fauna across the core garden and the surrounding historic landscape, farm and nature reserve. Recent observations include a barn owl which was displaced two years ago from farm buildings that had to be demolished; this is the first sighting, encouraging evidence that it is staying in the area. Coots and little grebes have also returned to the lakes now that the disturbance from the regency restoration work has ceased. The volunteers were able to film a deer family, including a stag. They find lots of evidence of deer using the trails on the estate, and unfortunately within the core garden. This information goes to Horticulture staff who will take steps to prevent deer damage to the permanent plant collection.

The Conservation group were recently surprised to find a single chicory plant, not seen here in years of observations. The team put out the Moth trap overnight every two weeks and have amassed some very interesting results; some 94 specimens across 26 species and occasionally some very unusual ones. The Moths are recorded and a Report is then sent to the County Moth Recorder. It is interesting to note that the counties used for this purpose (recording of Moths) are the historic vice-counties, so that comparisons can be made over long time spans on the same areas.

The Maintenance team have recently recruited some new volunteers for painting duties, in preparation for our 25th anniversary celebrations during 2025. Ty Melin, where we had our Friends AGM, is being painted, and many of

the Stitching Botanical panels that you saw, the ones based on the rivers surrounding and within the Garden, are now on permanent display in Ty Melin so lots of people will see them while attending events. 25th Anniversary Projects for the Stitching Botanicals are well under way, new volunteers have joined the group, and some of their work is currently

being displayed in Swansea's Singleton Hospital as part of a project organised by

Swansea University Health Board's Arts and Heritage in Health team.

We now have a full volunteer propagation team in horticulture which will make a huge difference to the number of plants we can propagate for the Garden and also sell in our Garden Centre. I have been sorting, organising and cleaning the garden's large collection of plant pots, trays and other equipment into the 'new shed' for some time, and would like to hear from others in the network about the equipment and procedures used in other gardens.

Finally, several volunteers are involved in the Herbarium project, funded by the National Lottery Heritage Fund's Dynamic Collections initiative, led by the Science team at the garden. The volunteers have undergone workshops to learn how to repair specimens using archival methods and are trained to transcribe, photograph, and digitise the collection. The historic collection was donated to the garden by Harrow School, which consists of the British and Irish Flora specimens collected by James Cosmo Melvill. The Project will run for another until 2026 and there are over 20,000 specimens to fully digitise. In the last few months, the team has managed to curate and barcode over 10,000 specimens, such is their enthusiasm and hard work. For further information please read the following blog about the project: Plants Past, Present and Future



Margot Greer and Jane Down

Photograph: Inkcaps—Peter Williams

Herbarium—Elinor James

Friends of Durham Botanic Garden

Being the end of summer and the beginning of Autumn it's been quite quiet in the Botanic Garden. The Friends have continued to work in the Garden keeping the paths weed free, deadheading the dahlias and trying to keep the weeds in the garden under control which has been difficult this summer. We are just about to restart our talks programme which have been well attended this year.



Our two day trips to RHS Bridgewater and Lowther Castle were well supported. The increasing cost of both coaches and garden entry fees are beginning to cause a problem of keeping costs of the trips at an affordable level.

Lowther Castle

In the garden itself there was a recent 2/3 day visit by representatives of the Tree Association of Britain and Ireland. On their previous visit twenty years ago, they hardly found any Champion Trees in the Garden. But with the passage of time and maturing trees they have now identified 67 County Championship Trees and 2 National Champion Trees. They also identified other trees that could be future Champion



Chinese Pagoda—RHS Bridgewater

Trees. The 2 National Champion trees are the Limber Pine *Pinus Flexilis "Vanderwolf's Pyramid"* and *Eleutherococcus henryi* (only 3m high and virtually horizontal)

Most of the trees were planted when the Botanic Garden moved to its current site over 40 years ago and are the legacy of the work of a very small team at that time consisting of our ex-Head Gardener Mike Hughes and his boss, Steve Ansdell.

The garden was also visited by the Northumbria in Bloom judges and has again been awarded a gold medal. The garden is a credit to the Gardening Team ably assisted by the Friends of the Garden. Peter Thomson (Garden Manager) was kind enough to send us his thanks

"Thanks, I think the FOG's help is a big reason why we achieved Gold at the awards, Can you send a message out to the whole FOGs group, thanking them for all the hard work and fundraising throughout the year and not just on Judging days from myself and the BG team, it is much appreciated!"

Finally, it is really great to report that after over 18 months of effort The Friends of Durham Botanic Garden has now been accepted as a charity by the Charity Commission. I suppose the lesson we learnt was that you need to be very careful in setting out your objectives and that any funding to the garden is for specifically agreed projects that are agreed in advance and help to deliver your objectives. Our first efforts were too vague. Amusingly after being known as The Friends of Durham University Botanic Garden for over 40 years we are now Friends of Durham Botanic Garden.

David Spence

Photographs: David Spence

Treborth Botanic Garden

The Friends have arranged some very successful events in 2024. Our two Spring plant sales raised £8000 for the Garden and our Open Day in September brought in another £2000. The Open Day coincided with Bangor University's alumni weekend - part of the University's 140th anniversary celebrations - so we were joined by a coach full of alumni who were delighted to re-visit the Garden and admire the changes since their student days.

More recently we held our annual fungus foray. Treborth's estate is comprised mainly of natural habitats - we have 15 ha of native woodland and 2 ha of unimproved grassland. So, in autumn, we are blessed with a wonderful variety of fungi. Our fungus forays are always very popular events, attracting many children as well as adults, the children often proving to be better foragers than their parents, with their sharp eyes - and being closer to the ground! 2024 proved to be a bumper year, with over 200 different species found. We had three expert mycologists, Nigel Brown, Charles Aron and Tomos Hughes, on hand to help identify the finds, and then they spent several days afterwards going through them all again, as some species can be difficult to distinguish from each other. For some fungi, a spore print was taken, and others needed examination under the microscope to provide a confident ID. The species included: the small *Mycena rosea*, Rosy Bonnet, which is found in beech litter and emits a faint bioluminescence; a dinner plate sized *Fistulina hepatica*, the beefsteak fungus; the smelly Stinkhorn with its descriptive Latin name *Phallus impudicus*; and the amazing Bird's Nest Fungus, *Cyathus striatus*, which really does look like a miniature bird's nest complete with tiny eggs. Local artist Philip Snow did some beautiful illustrations.

A few of the specimens that were unusual and particularly hard to identify were sent off for DNA sequencing. This is a partnership between Treborth, the specialist genetics department at Aberystwyth University, the British Mycological Society and the Jodrell Laboratory at the Royal Botanic Gardens, Kew, which contains the National Mycology Archive. At our fungus foray I saw two little boys excitedly bringing back their treasures to the fungi benches, clearly delighted and fascinated with their collection. Little did they know that they were part of this citizen science project that leads all the way to Kew!

Sarah Edgar

Friends of Belfast Botanic Garden

The Friends group had a busy summer and were delighted to be involved before and during the visit of the BBC's Antiques Roadshow to Belfast Botanic Gardens on 4th August 2024.

Two members proofread and fact-checked the script for the programme which contained information about the history of the gardens, its historical buildings and plant collections. They also submitted additional information for consideration.

The Friends group provided some historical items associated with the gardens for use on the programme (e.g. a vasculum, an old lead label printing machine and a modern replica copy of a Wardian case). A number of these were used by Fiona Bruce for the programme.

Although a rainy afternoon prevented filming of the Friends group working in the Global Medicine Garden, filming did take place there for the introduction to the show. We got a chance to speak to Fiona Bruce afterwards about the Global Medicine Garden and some of its plants. The first show is expected to be aired on BBC1 this autumn and we will get two weeks notice beforehand.

We also held a plant and ceramics sale at the event. The ceramics consist of earrings, pendants, brooches, coasters, tiles and framed plaques and are hand-crafted by two of our members using fern material from the Gardens and Queen's Quarter. We raised just under £1,200 and had a prime spot beside the entrance to the ticketed event which was held on the Great Lawn and in front of the Palm House.

On 25th August we held another plant sale at the Mela event in the gardens and raised just over £560.

A further sale was held on 14th and 15th September at the Autumn Flower Show which raised approximately £2,020.

We attended a Climate Change Event hosted by Belfast City Council and Queen's University Belfast in the Lower Botanic Gardens on 18th September. We met with representatives of partner cities in the EU's UPSURGE programme, which focuses on testing and promoting Nature Based Solutions in addressing climate change and its effects on urban living. There are 5 cities in total involved: Belfast, Breda, Budapest, Katowice and Maribor.

Continued on next page -

The Friends group has a plot on the UPSURGE site in Lower Botanic Gardens and we are developing a climate change garden on it. The plot will contain a Polycrub, cold frames, raised beds, composting bins and a demonstration area. The plot will adopt and promote water-neutral gardening practice and will be used to:

- demonstrate horticultural techniques that support climate resilience and bioversity;
- conduct trials and compare species and growing media to test resilience to changing climate conditions in both outdoor and protected environments.

It will also focus on seed-saving, progressive selection and monitoring of land-races (locally adapted, natural cultivars) as a potential contribution towards genetic diversity research and food and plant diversity.

Proposed planting will include:

Hedging (native and non-native) such as Crataegus monogyna, Laurus nobilis, Euonymus alatus, Cornus sanguinea, Luma apiculata, Rosa x hibernica, Rosa glauca;

Borderline tender species including Solanaceae e.g. *Capsicum* spp, *Solanum melongena* (grafted cultivar), *Physalis peruviana*, edibles usually grown under glass;

Aspidistra, Tradescantia e.g. 'Maiden's Blush', Zebrina spp and other usually indoor-grown plants;

Other food crops such as chick pea, lentil, edamame, chilli;

Plants (for an extensive green roof) such as Crassulaceae e.g. *Sedum* spp. *Sempervivum* spp., while also trialling other potentially suitable but less used species such as *Polypodium vulgare, Linaria vulgaris, Lotus corniculatus, Fragaria vesca, Antennaria dioica, Cerastium tomentosum, Freesia laxa.*

The Lord Mayor of Belfast was very interested in the Friends' plans for our plot and spent time talking about it, using photos of this on his social media post about the event.

Adrian Walsh, Barbara Pilcher, Eileen Sung, Jonathan Pilcher

Edinburgh Garden Guides visit a "dear green place"

Glasgow Botanic Gardens (GBG), located in the city's West End by the River Kelvin, contain a landscaped garden, a variety of plant collections, woodland areas, riverside walks and magnificent glasshouses. Garden guides from the Royal Botanic Garden Edinburgh were invited to visit them by fellow guide and Glasgow resident Robert Jamieson; Robert also chairs the Friends of GBG and in 2023 was instrumental in training and organising volunteers to offer tours for the public.

On 2 occasions in July and August, Robert showed a total of some 15 Edinburgh

guides round GBG. Arriving at the Gardens' main gate, we saw a fine display of summer bedding with the Kibble Palace and Main Range glasshouses as a backdrop. Robert set the scene by explaining the Gardens' history: founded in 1817 at a site on Sauchiehall Street by the Royal Botanical Institution of



Glasgow, moving to the current Kelvinside site in 1842 and in 1891 being taken over by the Corporation, now Glasgow City Council, because of the Institution's financial difficulties.

Robert then took us of a tour of part of the Gardens' fine Tree Trail (Leaflets about this and other trails are available from the Kibble Palace.) This led us to the herb and herbaceous gardens where the Glasgow Cut Flower Garden is based; here volunteers and students work together to grow and provide bunches of flowers for sale in local Shelter shops.

The arrival of rain was a timely reminder of our booking for lunch at the Tea Room, reached by way of the main glasshouse range with its displays of cacti, orchids, succulents and begonias.

Well rested and fed, we spent a wet afternoon in the shelter of the Kibble Palace; this iron and glass conservatory is one of the finest examples of Victorian engineering in Britain. Originally a private conservatory designed and built by John Kibble at his home on Loch Long, it was transported up the River Clyde by barge to its current location in 1873.

Within the Kibble, Robert gave us a fascinating tour of a gallery containing an extensive collection of carnivorous plants. We were then joined by a couple of other GBG guides for a tour of the main dome. This houses the national collection of tree ferns, some over 120 years old, and many other temperate and subtropical plants from around the world. A series of 19th century marble sculptures adorn the outer walls adding to the exotic feel.

The Friends of GBG have a comprehensive website providing information for visitors and seasonal news: www.glasgowbotanicgardens.com

Finally, our thanks go to Robert, for his informative and entertaining tours, and to him and Shiona Mackie for arranging the visits.

Helen Mitchell, Garden Guide, RBGE.

Photograph: Shiona Mackie

Friends of Thwaite Gardens

Our amazing volunteers!

One of the talks at the AGM prompted us to wonder how many hours the volunteers at Thwaite contributed to maintaining and developing Thwaite Gardens. We currently have 28 volunteers. On Fridays there are usually between 17 and 24 people in, some contributing two or three hours, some six or seven. On Tuesdays the number is smaller, between 5 and 9 for two to four hours. People stay different lengths of time, and they cannot come every week, but *if* all the volunteers were in, in any one week, working their individual "normal" hours (ie the time they normally spend there) we would be contributing 117 hours i.e. nearly the equivalent of three full time staff!



Volunteers Working in the Gardens

The Wollemi pine

We are delighted to have been presented recently with a Wollemi pine courtesy of Dr Peter Ayling, a former lecturer in botany at the University of Hull. Critically endangered in the wild, with only about 100 trees left, this tree is found in Wollemi National Park, Australia and is vulnerable to forest fires or disease. As part of the conservation effort these trees are being propagated and distributed to botanic gardens arounds the world.

Find out more about the Wollemi Pine here: https://www.kew.org/plants/wollemi-pine#our-work



Wollemi Pine donated by Dr Peter Ayling

Thwaite Gardens featured on George's Jungle Garden!

The Friends of Thwaite Gardens recently hosted a visit from George Lowther of George's Jungle Garden. If you would like a virtual tour, please see George's video showcasing the gardens and featuring our chair Steve Howe at: https://youtu.be/OMge3VCkJNw?si=mWAwbrE7735Wsj0T

Annie Bourton Card and Lindsey Atkinson

Photographs: Top: Bob Hall

Below: Annie Bourton Card

Generating New Opportunities at St Andrews Botanic Garden

St Andrews Botanic Garden has recently established an exciting new garden, focused on urban ecology and the opportunities to regenerate brownfield sites.

The 'Generator Garden' is situated on a formerly developed site, which previously held a glasshouse range. These glasshouses were decommissioned in 2021, as part of a change in focus for St Andrews Botanic Garden – increasing the resources available for understanding and protecting native Scottish plant communities, and reducing the fossil fuel requirements of the Garden. This shift has been hugely successful, decreasing the Garden's energy requirements by over 98%, and allowing for the creation of sand dunes, woodland meadows - and the new Generator Garden.

The name for this garden is inspired by both the gas generators which used to power glasshouses on this site, and the process of regenerating this space – creating new habitats for native plants & wildlife and increasing soil biodiversity.



The Generator Garden features a 'Standing Wood' of deadwood posts, log piles, dead hedges and buried timber – all utilising deadwood from trees felled due to damage from Storms Arwen and Barra in November 2021. As Director Dr Harry Watkins explains, "Brownfield sites offer some of the most exciting places for biodiversity in any town or city. Our new garden will examine how we can make these places amazing for nature – without spending money, within a certain timescale, in the knowledge that any gains for nature need to persist beyond the land being developed. Essentially, we're trying to turbo-charge the soil microbiome, by finding

creative uses for deadwood."

Brick and concrete from the glasshouse range were crushed on-site to create the planting substrate – preventing this grey waste from going to landfill and creating 'rubble dunes' of Eremurus, lupins, rock rose and sea campion. The planting throughout the site is "steered, rather than controlled", with a mix of native and non-native planting, creating a dynamic and immersive space for visitors. "It's part-accident, part-design, part-directed ecology."

Researchers have already made use of the Generator Garden to study how invertebrates inhabit the log piles, using acoustic techniques, and there are plans for e-DNA sampling of the wood chops on site to investigate the microbes present.

"We want this to be a place where local authorities, land managers and developers can collaborate on how to make the most of these spaces for nature. Fundamentally it's an experiment, the start of a conversation, focusing on botany at a landscape scale. I don't think there's anything quite like it."

Visitors can see the Generator Garden for themselves every day from 10am-4pm – or head to https://www.standrewsbotanic.org/mission/ to find out more about St Andrews Botanic Garden's mission and what we're doing to understand and protect local plant communities during the biodiversity and climate crises.



Bekki Gorgon

Photographs: Generator Garden—Bekki Gorgon

BOOK REVIEW

A is for Arsenic – The Poisons of Agatha Christie by Kathryn Harkup

At the University of Bristol Botanic Garden our Friends' group has a programme of t talks in which we aim to promote a holistic interest in the way the plant world intersects with the world around us. Our first talk of the winter this year was by Dr Elizabeth Dauncey, a freelance botanical toxicologist who has worked for organisations including the National Poisons service and the Royal Botanic Garden in Kew. During this talk she recommended the book "A for Arsenic-The Poisons of Agatha Christie" as an alphabetical overview of the poisons of choice in Christie's novels. As a lifelong fan of her murder mystery novels I resolved to read this, drawn to her idea of combining scientific expertise with fan-based knowledge.

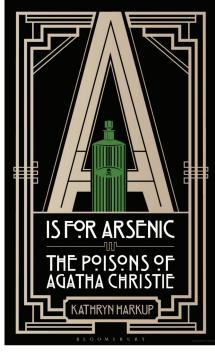
This book does not disappoint. It is a fact-filled investigation into the plant origins of each poison, then proceeds with a history of the use of these chemicals and how they interact with the body. The author, Kathryn Harkup, is a freelance science educator who is highly qualified in the science of Chemistry. She includes close and informed reference to the stories as well as real life examples of their uses in famous cases. The chapter on Opium for example, probably the

world's oldest medicine, is a fascinating insight into the way poppies have been used,

and abused, for centuries.

Agatha Christie had rather exceptional, detailed knowledge about dangerous poisons, not only from her gardening at Greenway, but from her youthful training as an apothecary's assistant, or dispenser, during the First World War. She updated this knowledge when she was also a dispenser at University College Hospital in London through the Second World War. As a result of this repeat training, she knew which plants and what doses could be lethal. In her first novel "The Mysterious Affair at Styles" she chose strychnine, which comes from the tree *Stryknos-nux-vomica* in India. When she wrote this novel in 1916, its use as a conventional medicine was on the wane as its poisonous potential became more widely known. As this book shows, the knowledge of poisons in Christie is extensive and well researched. Harkup reveals that Christie used this chemical knowledge extensively as she employed poison more than any other murder method, with the poison itself often providing vital clues to the murderer's identity.

It is a mark of the genius of Agatha Christie that she uses her chemical knowledge to such effective ends, constructing lethally entertaining plots built on solid scientific knowledge. If you would like to delve further into the use of the plant world by this most famous novelist and crime writer, then I thoroughly recommend this as a marvel-lous read.



Lucy Davies

Date for your diary

Sheffield Botanical Gardens, Plant Network and Friends of Botanic Gardens Forum Webinar

Managing on a Budget

4th February 2025 14.30

This webinar will be of particular interest or horticultural teams in Local Authority and University managed Botanic Gardens.









University of Bristol Botanic Garden

Tipping Point, a Luke Jerram installation: Forest Fire

Luke Jerram is a Bristol –based installation artist known for many works exhibited around the world including Museum of the Moon (https://my-moon.org/) and Gaia (https://my-earth.org/) ,which is currently at Bristol Cathedral. Measuring seven metres in diameter, they feature detailed NASA imagery, respectively, of the lunar or earth's surface at

an approximate scale of 1:500,000.

In summer 2018 a number of his other artworks were featured at the Botanic Garden in Bristol. Luke has been working with the University of Bristol again this summer culminating in a spectacular installation at the Botanic Garden for three evenings in October. **Forest Fire** has been developed to raise awareness of the links between our money and deforestation, citing the fact that for every £10 in your pension, £2 is linked by businesses responsible for destroying millions of hectares of forest each year.

The installation, which features the smoke, noise, and light which a fire makes in a major forest fire, raises critical awareness about some banks investing our money in forest-destroying practices. It is supported by light and sound artists who normally work in the music industry linking with university academics who work on

forest fires and their effects on nature and the environment. In collaboration with BAFTA award winning composer **Dan Jones**, the artwork includes an immersive soundtrack with the sound of trees burning, chainsaws whirring, animals running and birds flying away, to bring the reality of deforestation to life. The soundtrack also contains interviews with people about their direct experience of forest fires.

Botanic Garden Curator, Nick Wray said "Worldwide forest fires are a natural process of some plant ecosystems and in nature would start by lightning strike. The Fynbos heathland plant community in the Western Cape of South Africa needs cyclical fires to help stimulate bulbous plants to flower and seeds in the soil seed bank to germinate. However, with the global climate getting warmer and dry seasons getting longer, worryingly fires are becoming more frequent and more intense. So much so, that biologists in Australia have noticed that after intense forest fires, the forest has become so hot it has lost its ability to regenerate. This and research into the behaviour of forest fires is interpreted by scientists at the event."

Artist Luke Jerram said "After the success of the Impossible Garden back in 2018, it's brilliant to be working again with the



team at the University of Bristol Botanic Garden on such an important arts project. The Botanic Garden is a perfect location for this brand-new sound and light installation. I can't wait to share it with the public!"

This spectacular event was very popular with our members, University staff and students and the wider Bristol public. It was a sobering thought that the hard work which goes in to the preservation of plant species by botanic gardens around the world could be jeopardised in this way. To walk around the normally tranquil garden and see and hear flames and smoke and listen to the narrative from people who have been directly affected and to imagine the fear from all the wildlife as they tried to escape – it all felt real and very scary! And it was interesting to talk to the scientists from the University of Bristol and the Meteorological

Office who are trying to make us all realise that this is a real problem that is not going away and must be addressed by us all.

I look forward to visiting the Garden again when it has been put back to its usual peaceful state.

Pat Davie

Photographs: Pat Davie

