

Learnings from Glasgow Botanic Gardens
and the surrounding Scottish landscape

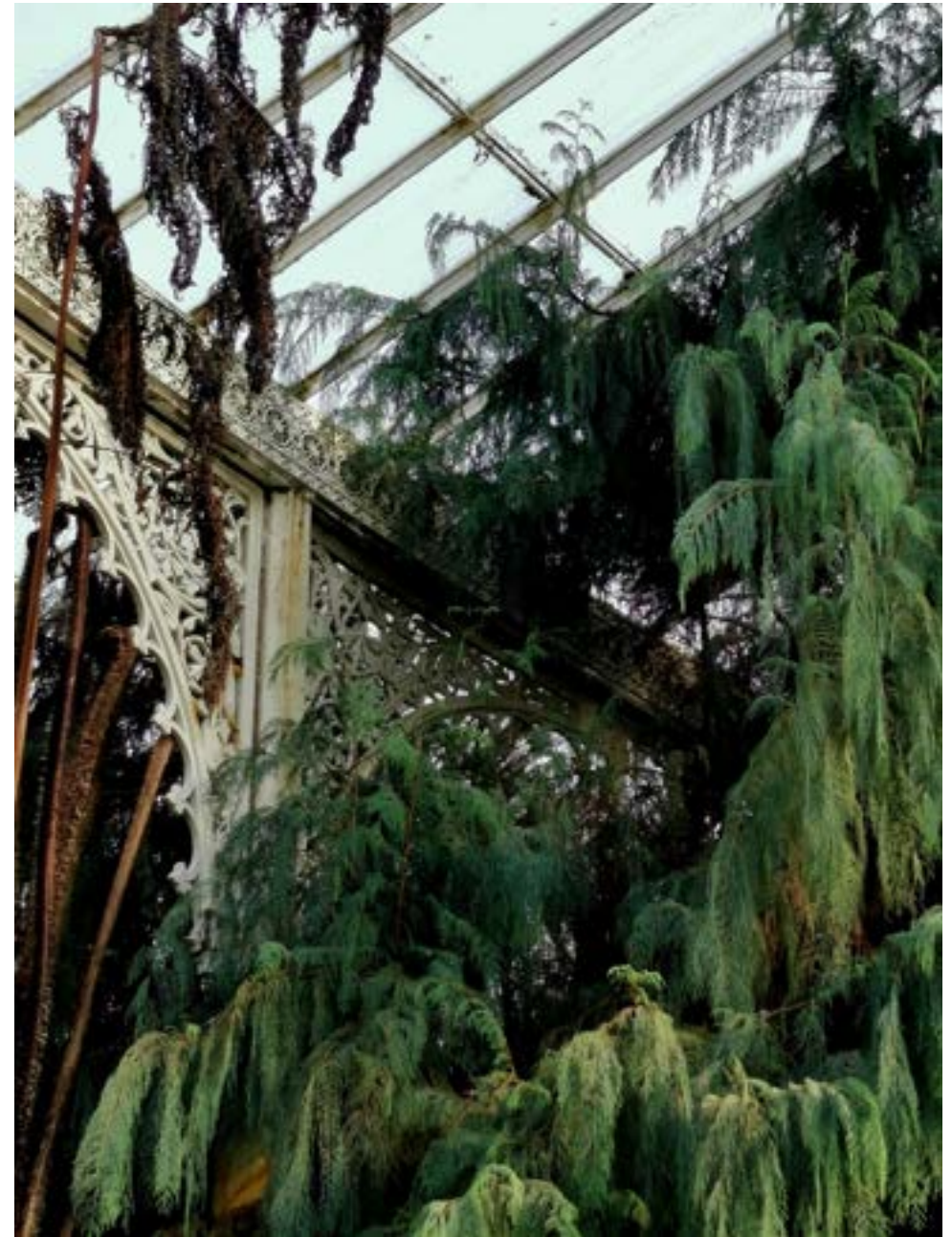
March 2026

Report for The Merlin Trust

Hetty Fruer-Denham

I'd first like to extend my warmest thanks to the whole team at Glasgow Botanic Gardens for providing such a warm welcome, and for enthusiastically guiding me through the incredible work carried out by this small, but nevertheless inspiring, Horticulture team. To Fiona for being my first point of call and support during volunteer onboarding. To Stevie for his unbounding excitement and tangents - which would often lead to spontaneous hours-long tours. To Daria for keeping up with my daily nattering. To Christine for the fascinating introduction to orchids. To Hero for the delicious noodles. And to all mentioned above and more for your endless kindness, and generosity of both time and knowledge.

Of course, a very special thanks to The Merlin Trust for the opportunity to make this trip a reality. Their vital funding provided me with a train ticket, a roof over my head and food in my belly, which was especially noted and appreciated during the chilly wet evenings, hands wrapped around a steaming bowl of soup. Notably, to Rebecca for her support throughout the grant process. As well as Jayne and Oscar, key figures in my Horticultural learning, who both took time out of their busy community focused roles to write glowing references. Without The Merlin Trust's funding this learning journey wouldn't have been possible - so thank you.



A Cupressus cashmeriana against the beautiful interior of the Kibble House







A bugs-eye view of the tree canopy in the Kibble House

Introduction

My interest in working with Southern Hemisphere plants first peaked while on a placement at Tresco Abbey Gardens in November 2025. There, I delved into the fascinating temperate climate of a white sanded archipelago, which sits just two hours boat ride from the tip of Cornwall.. Up until this time, my Horticultural experience had focused on food growing, herbalism, some engagement with ornamental horticulture and propagation, but mostly working in community spaces with mostly native species, where just getting seedlings watered in time is no mean feat. Being amongst a collection of Proteas, Ericas, Aloes, Correas, Leucadendrons etc. all made possible by the islands' proximity to the gulf stream and the considered efforts of a team of experts, awakened my excitement for a more Botanical learning within Horticulture.

To gain further experience with these plants in the UK often means turning to the inside world of glasshouses, and so, considering climate was no longer an issue, I travelled over 600 miles the opposite direction - to an 8 degrees and drizzly Spring in Glasgow.

The city of Glasgow is an exciting cultural hub with a strong community spirit, and the team at Glasgow Botanic Gardens reflect this manifold. They expertly and attentively care for an ever-expanding plant collection consisting of Palms, Dicksonias, Cacti and carnivorous plants. Although the Kibble House and Main Range are both home to an array of plants worth fawning over, as ever, the magic really happens backstage. Stevie's Ferns, Aphelandras, Fittonias, Caladiums and Anthuriums (to name but a very very few), Christine's orchids and Gordon's Begonias take over glasshouse after glasshouse, where you can happily lose yourself - and your phone storage - for hours. It more than proved itself as the perfect platform from which to deep-dive into glasshouse learning.

My main objective for this learning opportunity was to transfer my knowledge of temperate and sub-tropical plants to an indoor setting. I wanted to understand how glasshouse plant care is carried out effectively, focusing on humidity and pest control, and expand my knowledge of the plant species that thrive in this environment.

Starting small - seed sowing with Daria

As to be expected on a Spring placement, I spent a lot of time at Glasgow Botanic Gardens focused on propagation. A welcomed task for someone enthralled by the world of seeds - their varying forms, the seemingly impossible magic that something so small can store all the nutrients to become something much larger than itself, and, of course, the wider political landscape that they reside in: seed sharing, migration and sovereignty.

Propagation set the stage for experiencing GBG's giving energy firsthand, not only with their time and knowledge, but their resources too - sharing seeds, cuttings and spores with anyone showing even an ounce of interest in plants. It's sadly an attitude not always found in the Botanical Hort world, an unfortunate residue from its colonial extractive history. So, it was refreshing to see GBG challenge this daily, and forever uplifting to witness someone's shocked face when receiving these gifts with a flippant air, as Stevie raced on to show you something else...



Brahea armata (Arecaceae) seeds

Parodia mammulosa (Lem.) (Cactaceae)
seeds



Elaeocarpus coriaceus (Elaeocarpaceae)
seeds

Sesbania punicea (Fabaceae) seeds,
soaked before sowing to mimic natural
environmental for germination



Daria, the Horticultural Trainee at the Gardens, was my guide in returning to Horticulturally-sound seed sowing techniques and I am extremely grateful for her patience and tutoring through this process.

First, we mixed seed compost from clay, loam, leaf mould, silver sand, coconut husk and magnesium lime. From there, we filled pots upon pots with compost, tamping these down before watering them in. Then came the seeds, sent from Botanical institutions and friends of the Gardens the world over - again, a tribute to the sharing philosophy encouraged at GBG - Orto Botanico (Italy), Giardini Botanici Hanbury (Italy), Grădina Botanică Vasile Fati (Romania), Juniper Level Botanical Garden (USA), and Kew (UK) among them. We sowed most and saved a few, storing the remainders for future use and study.

Very small seeds need more light to germinate so we lightly sieved compost over the top, if at all, using then a spray water bottle to avoid seed disturbance. Most other seeds went under cover in the glasshouses, to be moved into the light once germination began.

Araucaria bidwillii (Araucariaceae) seeds,
soaked for a day for germination success



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Diospyros lotus



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Every now and then one of us would stop mid-sentence with a concentrated gaze – another species we didn't recognise. Excitedly, we'd look it up, oo and aa over the plant pictured and check to see if any special requirements were needed before sowing.

I'd heard of Fynbos seeds before – they've evolved in fire-dependent ecosystems, where plants require the physical or chemical cues of fire for germination. I'd never seen this propagation method in action, however, and so was pretty gassed to get the opportunity to try this out when some *Vachellia caven* seeds popped up.

Vachellia caven (Fabaceae) seeds with ethylene paper



Brodiaea edulis (Areaceae) seeds, waiting to be chitted

We filled a test tube with filtered water and added a small tear of ethylene paper, used to mimic the chemical cue for germination – the 'smoke'. The water helps transport the chemical compounds to the seed. This was then placed in a dark cool storage space overnight, before being sown as usual and left in a glass greenhouse to germinate.

Scarification was another propagation method we used for many of the tropical tree seeds, where removing or softening the testa (hard outer lining of the seed) is required for successful germination. Tropical tree seeds have hard testa to ensure the seed doesn't germinate in shorter wet spells, instead of the necessary rainy season. Chitting is simple to do – rub the seed over sand paper until you see the lighter tegmen underneath – then place this side of the seed down when sowing.





The Palm House

Dipping out of the prop shed at lunch, I'd use this time to roam the Main Range and absorb the more mature plants chosen for public display. The Palm House was a favourite. Fronds pressed up against its glass windows, dripping in condensation, inviting you in to take a peek.



Kerriodoxa elegans (Arecaceae) is a large palm, endemic to Southern Thailand, where it's named *chao-mueng-ta-lang*, *ching-lang-khao*, or *thang-lang-khao*. It is also often called the White Elephant Palm due to its frond's silvery white underside, as well as its size and rarity. It is the only species in the *Kerriodoxa* genus. Its large, round leaves can grow to 2 meters in diameter and have very little division amongst the leaflets, emphasizing its large appearance



Rhapis excelsa (Arecaceae), native to Southern China and North Vietnam, has been heavily cultivated through the years and as such is now unknown in the wild. It was brought to Japan during the Tokugawa Shogunate era and became a symbol of status, adorning the palaces. Its stems have been crafted into walking sticks and chopsticks by those living in its native regions. It is now widely used as a decorative houseplant, noted for its ability to filter air pollutants. It is slow growing and versatile, usually happy in any light or humidity, so an easy plant for UK indoor growing



Howea forsteriana (Arecaceae) is endemic to Lord Howe Island in the Tasman Sea, a previously uninhabited island settled on by Europeans in the 19th century. It gained its name 'Thatch Palm' because its fibrous fronds were used to thatch roofs and walls of early settlements. The woven like stem seen here was historically harvested to make baskets, matts and other household items



Thrinax radiata (Arecaceae)



Bismarckia nobilis (Arecaceae) is endemic to the western and northern savannas of Madagascar. Recent research has noted antimicrobial, antifungal and antispasmodic phytomedicinal properties

Dioon spinulosum (Zamiaceae) is an ancient cycad native to the tropical rainforests and limestone cliffs of Oaxaca and Veracruz, Mexico. Locally known as chicolito, its seeds have been ground into flour to make tortillas, the sap chewed as a gum by farmers, and the fronds used ceremoniously on Dia de los Muertos altars. It prefers humid conditions and indirect bright light, so thrives at the mid canopy level in the glasshouse



Encephalartos altensteinii (Zamiaceae). Commonly called the "breadtree" (broodboom in Afrikaans) due to the starchy pith found in the central part of its trunk. Historically, indigenous groups harvested the pith and buried it in the ground for two months. This microbial decomposition process destroys the natural toxins within the stem, allowing the remaining material to be kneaded into a dough and baked as bread



Both of these cycads are listed as vulnerable or endangered by the IUCN,. Some still cite use for traditional medicine as the cause, however, this has been widely criticised. Through further social historical research and by placing the voices of those who live in the native regions of these plants at the forefront, it is clear that carefully cultivated sustainable practises have been used for centuries, as well as keen observation of the plants, in order to ensure their continuation. Finally, there is recognition that collector and commercial poaching, as well as habitat destruction due to increasing agricultural land use, are mostly at fault.





Philodendron sodiroi (Araceae) climbing up the side of the glasshouse



Thunbergia mysorens (Acanthaceae) is a climber endemic to India. The flowers bloom several times a year and provide nectar for sunbirds



Hoffmannia refulgens (Rubiaceae), also known as the Taffeta Plant, is a rare plant native to Mexico and Central America

Ruellia makoyana (Acanthaceae)



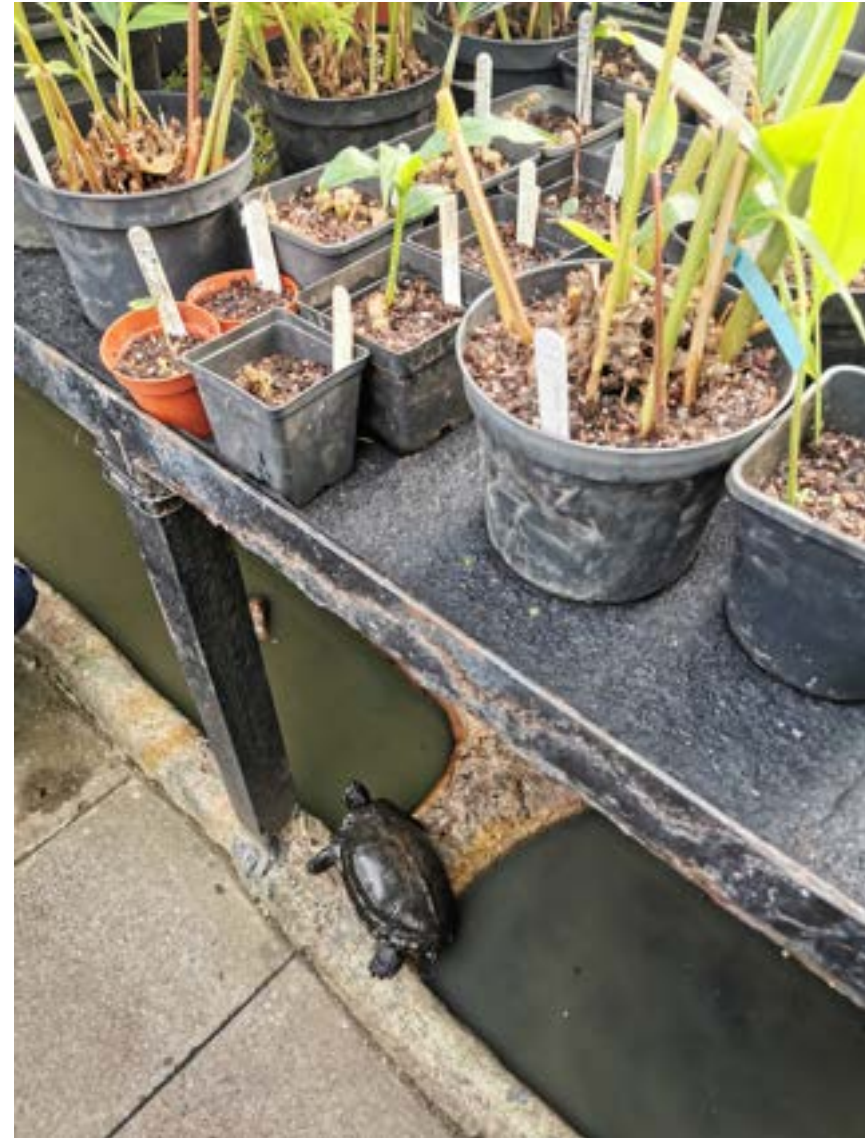
Licuala grandis (Arecaceae)



Damping Down

A necessary task for indoor tropical plant care, I would help Daria and the team dampen down all areas of the Main Range (minus the cacti house) and propagation glasshouses daily. This requires watering the floor, side walls and any plants in need of direct water contact, twice a day, to ensure humidity remained 50%-80%.

Damping down the Main Range with a hose



Terrapin hanging out and keeping cool in the propagation glasshouse

Another way to introduce humidity in a glasshouse is to include water in the infrastructure. At Glasgow Botanic Gardens they have uniquely done so by creating pools under the heat benches, which are now inhabited by rescued terrapins. These friendly little guys were abandoned in the park and now live on site permanently.

Propagating Selaginellas

Back to the prop shed and this time we're layering. This was my first time working with Selaginellas and the introduction to this spikemoss as 'a Stevie obsession' surprisingly didn't prepare me for my own love of this plant. Propagating such a large collection meant getting a fast tracked deep-dive into the versatility of structure and colour that these small but fascinating 'fern allies' offer.

Considering their form has changed so little in their lifespan, it may be a surprise to learn that they're up there with some of the oldest plants on earth, thought to date back 400 million years. This not only makes them a fascinating specimen to botanists today, it also means these 'living fossils' can help us track ancient climate transitions and post-disaster ecosystem recovery through their presence or absence across geological strata.

They are non-flowering vascular plants that reproduce via spores. This differentiates them from mosses, as they can transport water and nutrients more easily and, thus, grow upwards. Their delicate frond-like structure is usually covered in scales.



Selaginellas are great ground cover for glasshouse displays, as they provide an array of interesting structural details, while conserving moisture by covering otherwise bare soil between larger species. However, they are more than just 'gap fillers', they also act as very sensitive bio-indicators, their appearance directly reflecting the stability or degradation of the surrounding environment. This is great for a glasshouse where monitoring humidity and soil health are paramount to the survival of plants in an unnatural habitat.

One final funky fact - *Selaginella epidophylla* and *tamariscina* are resurrection plants, native to the Chihuahuan Desert. This means they can 'come back to life' after a long period of suspended animation. They curl up their fronds into tight brown balls and can remain in this state for up to ten years. Within hours of being rehydrated they will unfurl and turn green again.

We prepped the material by cutting off ends and dead fronds, then layered them on coconut fibre, ensuring soil contact by use of wire pins. High quantity in one tray is optimal! We then watered these in heavily, before placing them under shade in a glass greenhouse with a mister watering system.

Selaginella martensii 'Albovariegata'



Selaginella lyallii



Selaginella flabellata



(Need to identify!)

Selaginella erythropus 'Red Form'



Succulents and Cacti House

Another wet lunch break leads to another Main Range wander, and the warm arid landscape of the succulent and cacti house provides the perfect remedy to the mizzle outside - as well as a dramatic contrast to the moisture-loving Selaginellas. While all other rooms in the Main Range are damped down daily, this house remains dry, with fire doors sealing it from the surrounding humidity. Drip irrigation pipes run throughout the beds to ensure controlled watering.

Parodia magnifica (Cactaceae)



Austrocylindropuntia cylindrica Backeb (Cactaceae) is native to Colombia, Ecuador and Peru. It's primary use is to provide natural hedging to protect crops in agriculture, but it also provides habitat for cochineal insects. As such, the plant is often harvested for these insects, which are used to make crimson dye

Echinopsis candicans (Cactaceae)



Haworthia glabrata (Asphodelaceae)





Parodia magnifica (Cactaceae)
This cactus' structure exhibits the Fibonacci sequence, allowing for optimal sunlight exposure and space efficiency



Parodia magnifica (Cactaceae)



Parodia magnifica (Cactaceae), an endangered balloon cactus native to southern Brazil and Uruguay



Parodia magnifica (Cactaceae). In the wild, it is native to the cool, temperate grasslands and rocky regions of southern Brazil. Because of habitat loss (agriculture and erosion), it is classified as Endangered by the IUCN Red Lis.



Kleinia artemuophorbium (Asteraceae)

Xanthorrhoea australis (Asphodelaceae) is endemic to Australia. They're famous for their incredible resilience and slow-growing - they can live for hundreds of years. They have a unique trunk formed by old leaves and resin, and rely heavily on bushfires to thrive and flower. This grass tree at GBG is 400 years old!



Euphorbia nana (Cactaceae), also known as Dwarf Old Man Cactus, is known for its tufty white hair. I love this little bit of floof, looking as if its trying to float away



Adonia globosa (Passifloraceae)

Haworthia symbiformis (Asphodelaceae)



Loch Lomond Day Visit

With weekends free to amble, I planned a hike around Loch Lomond, an easy bus ride from Glasgow centre. Linking up with some lovely French University students I stumbled into en route, we hiked to the top of Beinn Dubh and finished off the day with a swim in the Loch.



The name for the loch was originally Loch Leamhain, after the river that flows from it (it means “elm river”). The modern name comes from Ben Lomond, which in Gaelic is Beinn Laomainn, meaning “beacon mountain”.

(<https://fionaoutdoors.co.uk/2019/01/gaelic-language-in-scottish-nature>)







Some Gaelic words and phrases I researched during my time in Scotland, relevant to growing, nature and the surrounding landscape (note - there were a lot of words for rain that I've sadly left out in need of space for others - would encourage you to look these up though):

Flobby - used for clouds, large and heavy indicating rain

Glaisterie - 'a glasterie day', one on which snow falls and melts

Tiffle - a slight breeze or ripple of wind

Splorroch - the sound made by walking in wet mud

Às an dris, anns an droigheann - 'out of the bramble into the blackthorn', similar to out of the frying pan into the fire

Dòigh Nàdair - 'the way of nature'

Breac a mhuiltein air an àthar - describes a dappled sky, meaning 'there will be a good day tomorrow'

Ruskie - a basket made from twigs and straw for carrying corn

Scrab, scrabble - a stunted or withered tree or shrub; a root; a stump of heather

Còinneach 'us Coille - moss and forest

Cnò-daraich - acorn

Comhachag - barn owl

Algaich - algae

Giùran - barnacle

Lus nam Ban-sìth - foxglove, "the plant of the fairy women"



Fern spore propagation

Back to Glasgow Botanic Gardens and something I'd been desperate to learn about ever since Stevie showed me his DIY bathroom cabinet come fern prop cupboard, fitted out with aquarium (and sometimes repurposed police detained) lights. I'd only come across fern propagation via layering, which is an easy option to get good results but limits production numbers. Fern spore propagation offers mass production as well as genetic diversity, which matches GBG's enthusiastic curiosity for botany.

Polystichum vestitum (Dryopteridaceae) fronds with some spores and sporangia already loose on the paper



Scalpel meets sporangia



We first made up the pots, filling the bottom of each with thick hort grit to ensure good drainage, then topping this up with the roughest sieved out parts of the compost (mostly coconut fibre). This gave us an uneven and rough texture on which to sow the spores, which helps to limit contamination while mimicking the natural environment spores would usually germinate on. We watered these in with hot water to sterilise the pots and soil, leaving them under glass while we turned to the spores.

Fern spore propagation is fiddly work, requiring accuracy, patience and the ability to hold a steady breath. We wore face masks and rubber gloves, ensuring to wipe both down between ferns. It's important to label the pot before you start work on the frond, in order to ensure a quick transition of pot to final prop placement, to avoid contamination.

We removed the sporangia from each frond using a scalpel, onto a fresh piece of paper. To then separate the sporangia from the spores, you simply transfer the material between two pieces of paper by lightly tapping the back. The larger sporangia will fall and you will eventually be left with the tiny, usually black and more circular, spores clinging to the paper. Save the spores if there are too many, as dense sowing will inhibit growth. They can keep up to 50 years if chilled!

Separation of spores from sporangia

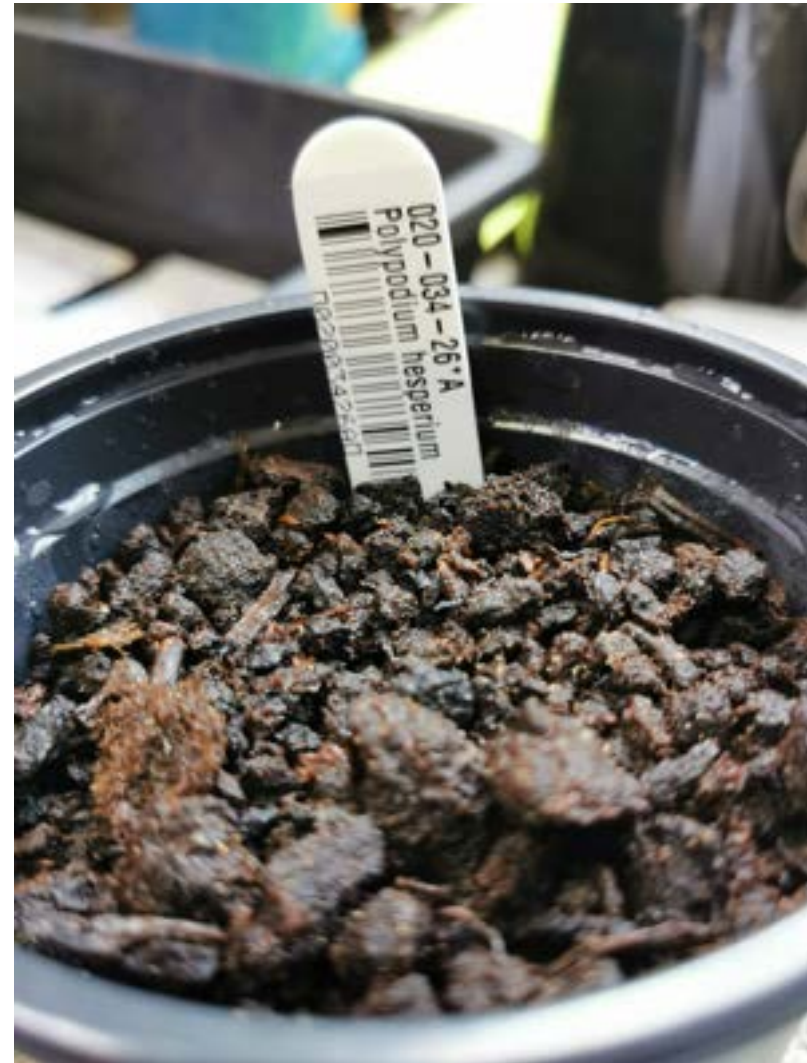


Despite all these precautions, cross-contamination is still likely, but as Stevie suggests, you might as well grow it on - it could become a cool rare fern.

(Important note to remember: you must time collection of fronds carefully. You need to harvest them when the sporangia turns darker but before it 'dehisses' ie the sporangia releases the spores.)

This was then tapped evenly over the pot, before adding fresh cling film to support moisture retention and avoid further contamination. These were then moved to a dark prop cupboard, on top of matting, under artificial light on a 12 hour sensor. Fern spores at this point should be kept wet through damping the matting and an occasional spray on top.

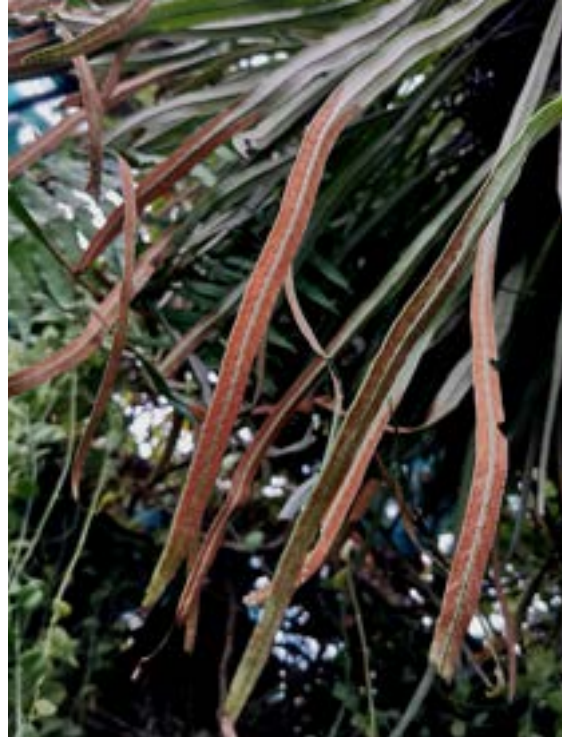
When signs of germination appear pots will be moved to a glass greenhouse in a well lit area, with the cling film removed but all pots kept under a prop lid. Again, watering from below is preferred but some light spraying over the top of the pots is needed to ensure sexual parts of the fern mix.



A quick snap of the spores on top of the textured soil surface



Examples of differing sporangia structure on fronds



Pyrrosia family - sori sits at the end of the frond so spores are above the rest of the foliage, encouraging the wind to carry the spores away. The sori looks pink or dark orange to protect spores from harsh sunlight



Filmy Fern House

A hidden gem of GBG, only open to public via request, is the incredible Filmy Fern House. This oasis in a maze of glasshouses is a micro-ecosystem of Ferns, Liverworts and Selaginellas all happily co-existing. The space demands stillness, listening to the drip drip drip of the condensation falling from the fronds.

Dense planting means there are a myriad of ferns, liverworts, mosses and selaginellas in one small space



Translucent fronds of the *Hymenophyllum dilatatum*

Filmy ferns, Hymenophyllales, leaves are only one cell thick between the veins, meaning they produce this almost translucent effect. Their natural environment tends to be in cloud forests, where low lying clouds keep the fronds hydrated.

Hymenophyllum nephrophyllum (Hymenophyllaceae)



Diluted feed sprayed around filmy ferns



To keep humidity levels high in this space, there is a strict daily watering schedule. I also managed to time this with a rare feed day, and so, after drenching the place, I applied a diluted liquid feed to the root zones, avoiding any epiphytes.

The design of this space has been enhanced by man made branches that create an overhang to dip under as you walk through. These were constructed by the Hort team using scaffolding poles, clad with cork bark, and planted out with ferns and mosses. These need direct watering but feed should not be applied, as this could cause leaf burn.



Man made structures to mimic natural habitats



Kibble House

The architecture of this glasshouse is second to none - the impressive overhead dome lends itself to a circular walk around, encouraging you to take in every inch of it's temperate to tropical rainforest interior.

I was lucky enough to join a tour Stevie hosted here and so have included some of his ethnobotanical notes.

A collection of *Dicksonias* and *Cibotiums* in front - if mealy bugs are present, cut back fronds hard



Araucaria heterophylla (Araucariaceae)

Equisetum, not sure which variety. Used widely in herbal medicine to support bone health, skin, hair and nails. Dates back over 350 million years



A young fern frond yet to unfurl



Rhododendron cubitii (Ericaceae) is often used in Traditional Chinese Medicine and Ayurvedic Medicine. Communities in Burma have historically harvested its tuberous roots for food



Strelitzia reginae (Strelitziaceae). specifically strained decoctions from the flowers, are used by the abakwaMthethwa clan in KwaZulu-Natal to treat inflamed glands and sexual diseases. In the Cape region, the seeds have been used historically to curdle and sour milk



A peak through the undergrowth





Orchid seed sowing and care

Orchid propagation often requires a lab-like environment in order to be successful, due to its miniature seed size and therefore susceptibility to cross-contamination. GBGs set up is perfect for Christine, the orchid expert, to save and produce enough seed to fill the Orchid House, as well as further three glass greenhouses behind the scenes, with orchids of all types.

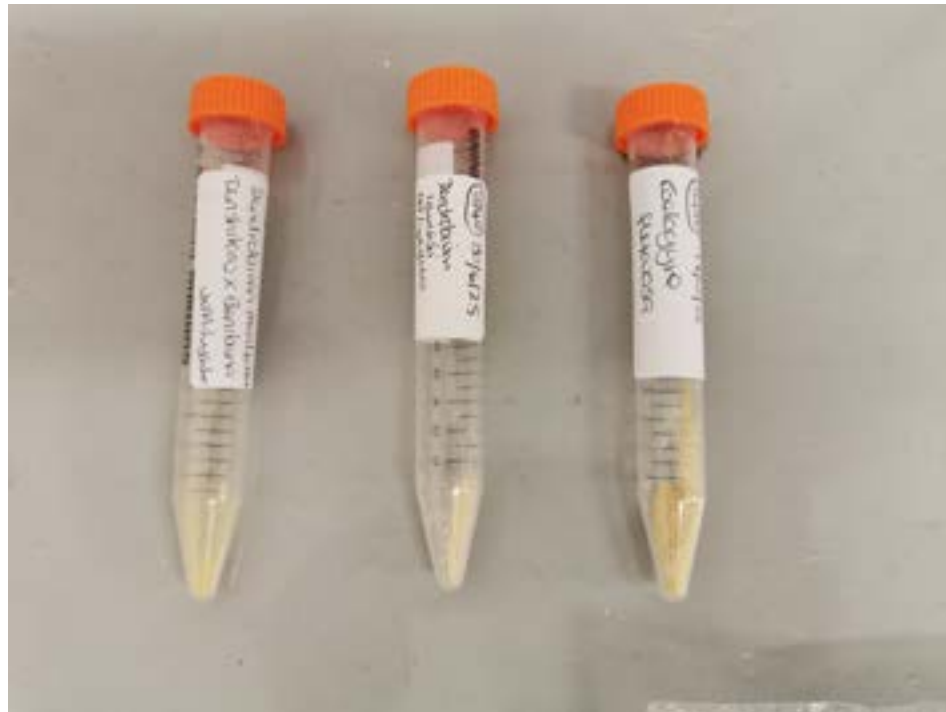
Daria and I got a bit too excited when putting on the lab coats, but were quickly humbled by the lengthy process of orchid propagation, patiently and expertly explained to us by Christine.

1. Prepping the space

PPE - gloves, lab coat and goggles. Sterilise tools in autoclave, and wipe down laminar flow cabinet with ethanol. Focus on the tile as the cleanest spot. Don't breathe too much into the laminar flow cabinet when working, work as far back as possible.



Daria lab coat ready



Orchid seed waiting to be cleaned and sown

2. Cleaning the seed

Place a tiny amount of seed into a sterilised test tube, and pipette 9ml bleach solution on top (1:9 water to bleach). Agitate this four times, over 10 minutes. Do this carefully to avoid bubbles forming. You can also squeeze the pipette before putting it in the bleach/water each time, to avoid forming bubbles in the test tube. Always bleach rinse the pipette before use and between water and bleach use. Then rinse the seed in the test tube four times using sterilised tap water. To do this, pipette the water out of the test tube. This is easiest when tilted, so you can go beneath the seed with the end of the pipette and not disturb the seed. Once it sinks to the bottom, usually on the third or fourth round, you can pipette from the top. Always clean your gloves whenever you leave and return to the laminar flow area. Don't ever cross your hands or arms over the work space. Try to keep pathways clear.

3. Sowing the seed

Sterilise a jar with agar medium mix and loosen the lid. Pipette water out of test tube to 1ml. Agitate the seed lightly, then pour the seed over medium evenly. Don't shake the test tube into the jar, just carefully tilt.

Giving the orchids a nice bath



That afternoon I helped Christine with plant care for the already established orchids on display and in the glass greenhouses behind. This consisted of a lot of watering!

Big vats of cool fresh water sit in the orchid greenhouses. Watering the orchids involves dunking each orchid into this water for around 7 seconds (or until the bubbles stop) to fully soak the cork and moss on which the orchids grow. It's important to avoid getting the flowers themselves wet, as this can cause petal blight and fungal rot. For those in pots on benches, I watered from the base, hosing the gravel underneath. I also damped down the floor of each greenhouse to increase overall humidity. A fan and vents on a timer help control air flow.

This was the perfect time to delve into the world of orchids and really get up close with this plant family. The pitter patter of rain on the glass above allowed for some quiet reflection while studying the myriad of flowers. I've never worked with orchids before, but my fascination grew witnessing Christine's passion and seeing the sheer variance in species and varieties.

I've shared some of my favourites below.

Terrestrial orchids need micorhizzal fungi to germinate, so we added some fungi to the medium before sowing. These then go in a dark cool place until signs of germination appear. Epiphyte orchids, however, are placed immediately under artificial light, with a fan to ensure air flow.

We finished the seed sowing up by labelling all sown seed jars with the date, name of sower, name of seed and how many jars we'd sown. We sterilised all equipment, and then sat chatting about DIY propagation methods to try at home, Christine kindly gifting us some seed for this reason. One potential method is Phil Seaton's coffee filter paper (follow link for details). <https://solihullorchidsociety.co.uk/wp-content/uploads/2016/2016-07.pdf>



Some winter blooming or deciduous orchids, such as Dendrobiums and Catasetums, require a dry winter to mimic their natural environment

A vanilla vine! *Vanilla imperialis* is not the edible kind, but is related. It produces the largest flowers of all the African orchids, up to 6.5 inches across



Bromeliads are planted with orchids to mimic their natural environment as well as support with humidity control



Rosemary is used as a pest deterrent against cockroaches who eat the pseudobulbs



One of the tiniest orchids I saw at GBG! *Appendicular congenera* is native to Java, Indonesia



Phragmipedium Bouley Bay



Pleurothallis alvaroi



Angraecum sesquipedale



Arpophyllum giganteum

Pleurothallis, not sure which variety



Masdevallia davina



Masdevallia ignea



Paphiopedilum (paph.) Monn Maid







Carnivorous plants

My final day at Glasgow Botanic Gardens led me to the Carnivorous plant section, helping Christine with plant maintenance, but mostly listening to a whole host of facts and stories about these interesting plants. It felt fitting to leave this incredible work experience with a final few hours of deep-dive learning, guided, as ever, with enthusiasm and excitement from GBG staff.

Sarracenia x courtii (Sarraceniaceae) in flower. These bloom high above the carnivorous traps to prevent pollinators from getting caught and eaten



Sarracenia leucophylla (Sarraceniaceae) is an endangered wetland pitcher plant. The plant attracts prey with a sweet-smelling nectar produced around the lip of the pitcher. The rim of the pitcher is covered in a waxy, slippery coating that causes insects to slide in. Once inside, downward-pointing hairs physically prevent the insect from crawling back out

Sarracenia × courtii (Sarraceniaceae)





Sarracenia x courtii (Sarraceniaceae)

Sphagnum moss (Sphagnaceae), is native to wetlands, enjoying and retaining dense moisture. It was used as a wound dressing during WW2 by the Red Cross who coordinated its collection and use in makeshift hospitals across Glasgow



Drosera capensis (Droseraceae) is a sundew. They trap insects using hair-like sticky tentacles along their leaf. Once captured the tentacles curl inward and secrete a digestive enzyme. The juices from the prey are digested via glands, helping the plant grow

Inside a pitcher plant - flies caught on the downward facing hairs





Conclusion

I thoroughly enjoyed my time at Glasgow Botanic Garden and am ever grateful to the amazing staff who crammed my two weeks with endless learning opportunities. I didn't expect to be propagating orchids via lab-style methods or removing sporangia from fronds sent from all over the world. The experience exceeded my expectations, and it wouldn't have been possible without the enthusiasm of the GBG staff, as well as their flexibility in hosting me during their busy working hours and across all areas of the garden.

Daria was a key component to making this experience so enjoyable, from taking me on a lunch walk on my first day and nattering all hours about books, politics and films, to teaching me all she knew and being a great learning companion during experiences new to us both. I wish her all the best in her future Horticultural career and have no doubt she'll go far (fingers crossed for GBG newest staff member)!

I will now use this experience to form a future career in conservation. I hope to undertake a Masters in Plant Conservation next year, and believe this has given me a worthwhile foundation from which to achieve this goal. In the meantime, I would also love to work in a tropical plant nursery and will pursue this when back in London.

I really hope I can return to GBG in the future, to get a more in-depth look at pest control and ongoing plant maintenance of the larger species present, such as the *Auracarias*, Palms and tree ferns. I also hope to see all the wonderful people I met there again, and reciprocate just some of the generosity I received by offering my time and labour. As a first step into the world of glasshouses, I don't think anything could've beaten this!

