



BUC is a fun and friendly competition between teams of undergraduate & postgraduate university students, streamed on YouTube to BUC's UK and global audience. Each team of four represents their University or similar institution. BUC 2024 will be bigger than ever, with two online knock-out rounds of multiple-choice questions on 14th and 21st February. All the teams will see the same questions and have a short time to pick the most correct answer from 5 options. The 8 teams with the highest scores will take part in the online Quarter Final on 28th February. This will begin with more multiple-choice questions to all the teams to get them in the mood! Then, each team will be asked rounds of more open, free answer, questions, where they have to speak the answers. The four teams with the highest scores from this quarter final will then take part in the live Semi Finals in Oxford in August.

The Grand Semi Final will be held on 28th August at the Queens College, University of Oxford with a live audience and also streamed on YouTube. All the questions will be open, free answer questions, some based on live plants given to the teams in the room. The two teams with the highest scores in the Semi Final go head-to-head in the Final to reveal our Botanical University Challenge 2024 winners & runners up!

The questions cover many aspects of Botany: plant ID, taxonomy & evolution, ecology & conservation, plant health, horticulture, agriculture & forestry, plants in culture & history amongst others. Although traditional ideas of Botany are the focus of the contest, the questions also include contemporary plant biochemistry, genetics, physiology and molecular biology.

Teams of 4 students, along with one or two reserves, can enter the competition. We allow just one team from each institution, so if there is oodles of interest (and why wouldn't there be?!) we suggest holding an internal contest to select team members.

Entry forms are available on our website. To keep BUC as inclusive as we can, the closing date for team registration has been extended to **31st January 2024**. For further information and any questions, email Dr Jonathan Mitchley using the email address below:

Read more about BUC on our website
<https://botanicaluniversitychallenge.co.uk/>
 For further information and to enter, email BUC at
botanicaluniversitychallenge@gmail.com



Registration open, revised Deadline Jan 31st!

14 February: Knockout Round 1, online start 14:00

21 February: Knockout Round 2, online start 14:00

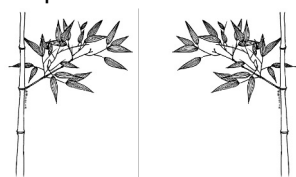
28 February Quarter Finals, online start 14:00

28 August: Live Semi Finals and Finals

Starts 14:00, University of Oxford

NB All BUC 2024 rounds live-streamed!

28-30 August: Student Botany Festival at University of Oxford open to all BUC 2024 contestants



MEET THE CHAIRS!

By Meriel Jones, BUC Planning Team member

We are very pleased to introduce the three botanists who will be asking the questions in the first three rounds of Botanical University Challenge 2024.

Round 1, 14th February: Dr Sarah Dalrymple, Dr Sarah Dalrymple, Reader in Conservation Ecology, Biological and Environmental Science at Liverpool John Moore University, will be asking the questions. Her research focuses on plant ecology and conservation. She has worked on the management of threatened species, especially to understand the environmental requirements that each needs. She has written guidelines and advised on rare plant re-introduction and translocation projects, and is working on the IUCN Red List of species that are extinct in the wild. See more [here!](#)



Dr Sarah Dalrymple

Round 2, 21st February: Dr Micheline Sheehy-Skeffington. Micheline is President of the Botanical Society of Britain and Ireland, having previously lectured at University of Galway for over 30 years. She is a plant ecologist and especially interested in wetland systems and



Dr Micheline Sheehy Skeffington



Dr Leif Bersweden

Round 3 Quarterfinals, 28 February: Dr Leif Bersweden. Leif is a writer, botanist & nature communicator with a face-down, bottom-up approach to watching wildlife. He grew up in rural Wiltshire where he taught himself to identify the local flora & has championed our wild plants & the joy they bring ever since. Leif is the author of *The Orchid Hunter* & *Where the Wildflowers Grow*. See [Leif's website](#) for more!

WHAT'S IN A NAME?



By Meriel Jones, BUC Planning Team member

The names teams choose for themselves are part of BUC. Here are some from recent years!



We also ask each team to make a slide to introduce themselves - the more fun and creative the better! We look forward to seeing your team names and creations very soon.

ADVENT BOTANY BRANCHES OUT!



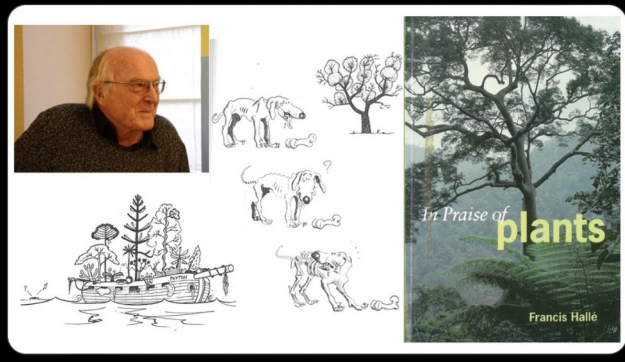
By Alastair Culham, University of Reading

#AdventBotany 2023 has branched out into book recommendations for the discerning botanist.

It seems unbelievable that #AdventBotany started a full ten years ago. In December 2014 we launched with a [blog on Ivy](#) (and ran through to 2019 although sadly some of the later tweets have been lost, see [this link](#) for more!), but sage, missing from the incomplete index is [still available for 22nd December](#). We ran a complete year in 2020 as a COVID activity, and ended with the Star of Bethlehem from GOD.

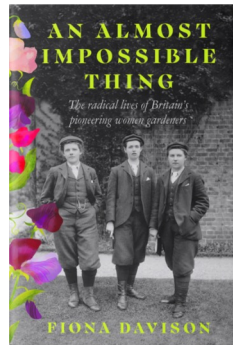
Despite attempts to keep going during COVID, #AdventBotany took a break in 2021 and 2022 while the Higher Education sector got back on its feet, and the battle of goliaths over Twitter ownership left the X platform looking very different. While many of the original tweets are hard to trace on X, the early #AdventBotany posts are all linked to a taxonomic index covering over [190 plant species](#) so please do go back to read and enjoy those!

Dr M still going wild! @drmgoeswild - Dec 24, 2023
 #AdventBotany Day 24 In Praise of Plants by Francis Halle (2002) Chosen by Dr M (Jonathan Mitchley) "A characteristically wise, amusing, sometimes controversial take on the wonders & strangeness of plants!" 2/2
 Dr M's Francis Halle blog @BUCBotany here: botanicaluniversitychallenge.co.uk/bucblog/

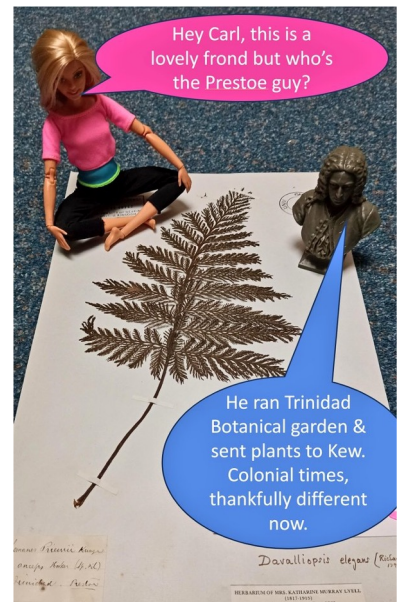
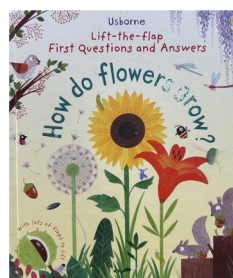
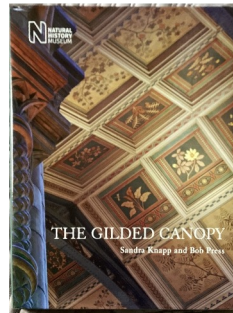


Above: Tweets of #AdventBotany from Dr M.

This year, 2023, with encouragement from Dawn Bazely to rejuvenate the project and with support from Jonathan Mitchley (Dr M), I suggested we changed from advent plants to advent books and a new year of #AdventBotany (#AdventBooks) was born. I shared a Google spreadsheet and invited some of the previous contributors to suggest books and was met with real enthusiasm and a list far too long! We now have material for at least two more years and have added to my already crowded bookshelves (thank you, Santa!).



So what did we cover this year? Our oldest book was Gerard's *Herbal* from 1597 and our most recent - *Frustrating Flowers & Puzzling Plants* - was hot off the press in 2024! (See *The Thymes* Issue 5). Dawn's *Women in Botany, for children 7-10 yrs* was aimed at the youngest audience. We featured the *Rum Affair* and included photographs of some of the original 'Rhum' herbarium specimens. A nice contrast was *Wicked Plants* (in case you need to murder someone) and *Gardener's World Magazine* (in case you just want to sit back and relax), & #HerbariumBarbie made a guest appearance talking about ferns! You can find a blog cataloguing the full #AdventBotanyBooks [here!](#)



Books included in of #AdventBotany (#AdventBooks), and a cameo from Barbie!

This is also my chance to say a huge 'thank you' to the many previous contributors to #AdventBotany of the past decade.

Thank you!

I'll be contacting a wider audience of possible contributors for next year - and sorry to those that offered but for whom we didn't have space. In the meantime, scan the QR code for the full #AdventBotany index!



THE THYMES INTERVIEW: LINDSAY TURNBULL

With Dr M

Lindsay Turnbull is Associate Professor of plant ecology in the Department of Biology at the University of Oxford, and a tutor in The Queen's College, where the BUC 2024 finals and 2nd Student Botany Festival will be held in August 2024.



Above: Professor Lindsay Turnbull

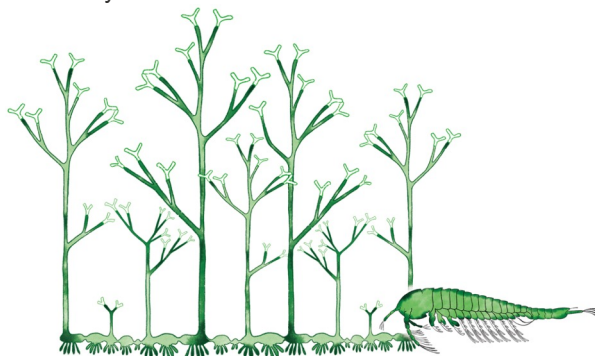
Dr M: When/ how did you first get interested in plants?

Prof T: I was interested in Natural History as a child and can remember being bought *The Usborne Spotter's Guide to Wildlife* and I used it to identify a plant growing in the pavement which turned out to be Herb Robert, which is an extremely common weedy plant, but I thought it was just a very beautiful plant and I was super excited that this kind of weed actually had a name and was a proper thing and I think that was really important to me and realising that everything out there is a proper thing with a proper name and that if you are armed with a book, you can find out that name. I used to go to a little patch of woodland near my house where there were Blue Bells, Marsh Marigolds, Wood Sorrel and Wood Anemones. Those are important plants for me, they recall my childhood very strongly. So I was never someone who was interested in animals but never noticed plants. That's what's nice about plants. They are much more accessible, if you're a young person going out into the environment, you're going to struggle to find many mammals, right? But you can find loads of plants!

Dr M: Tell us about your research?

Prof T: I'm a grassland ecologist and my PhD was all about plant coexistence. So why are there 40 plant species in a square metre of chalk grassland? We know it's something to do with the very low nutrient status of those grasslands. We know that we can destroy that diversity quite easily by fertilising, but that doesn't really answer the question. We still don't have the tools currently to be able to answer that question.

More recently I've been involved in conservation research.



Above: Professor Lindsay Turnbull

A beautiful long distance national trail runs through Oxfordshire, Berkshire, Wiltshire, it has a lot of grasslands associated with the verges. It's an ancient drovers way that would have gone through acres of chalk grassland, most of it now ploughed up for arable. But the verges are still potentially very nice, but they're not being managed so they have lost diversity. I started a project about five years ago to see how easy it would be to restore those verges. We did a very simple classic plant ecology experiment, with plots and various management treatments, and consulting with the Oxford Herbarium to find out what species were present in the past and sowing them back into half of each plot. What we found was amazing; five years from an initial sowing, and with annual cutting treatments, you could restore fabulous species-rich chalk grassland from pretty much a monoculture of *Arrhenatherum* (False Oat-Grass). Whether that can be rolled out on a larger scale I'm not quite sure, it's always very difficult to get the funding for these kinds of things. These national trails are just that, for public access, it's all about giving people access to fresh air and exercise, not about giving people access to nature. That really needs to change, because we should be managing the national trails and parks for their biodiversity as well.

Dr M: How can we encourage the next generation of plant aware students?

Prof T: Well, you've just got to get them out there in the field, looking at plants and then learning their names, and then bringing them back and putting them under the microscope. We have a first-year compulsory field course on ecology, with a day on plants. Myself and Stephen Harris (Oxford Herbarium curator) take them out into the field, getting them to look at plants, start identifying, start looking at them properly and seeing that they aren't all the same, how they're different and then bring them back to see the details of flowers under a good quality microscope. Most of them are really into it, we don't have any problem getting them excited about it. So, the problem isn't plants, they are interesting, you just need to get the students out there to engage with them directly. And you need to have your store of great stories and people who can tell those stories.

Dr M: What are you looking forward to in Botanical University Challenge?

Prof T: I'm really looking forward to the finals, so to have this 2 or 3 days where the teams will be coming to Oxford and hosted in the Queen's College and the Botanic Gardens jointly. Students who come will be staying in the college, and we'll be having our final in our fabulous Shulman Auditorium. We're organising lots of exciting events, not only the actual competition, but the students coming will have a chance to learn more and get out there and work with some of our experts. For example, we're going to work with Steven Harris to have a look at flowers in more detail and put them under the microscope and see how incredibly gorgeous they are and go to the Arboretum, and the famous botanic gardens themselves.

Dr M: What is your favourite plant?

Prof T: I really don't have a favourite, but I'm going to talk a little bit about the Coco de Mer because I have this connection with the Seychelles Islands Foundation. They manage two World Heritage Sites...

...and one of them is the Valley de Mer, the Coco de Mer stronghold. It's an incredible relative of the common coconut and endemic to Seychelles. It's been much less successful than the common Coconut because it produces a nut, which is the world's heaviest seed, an immense double coconut, much heavier than water so unlike coconuts that float and can go all over the world and conquer the world, the Coco de Mer just sinks to the bottom of the ocean. But these incredible nuts used to wash up on the coast of East Africa or in the Maldives and people would prize them, because you can carve them. Even once they've been travelling under the ocean they retain this structure almost like Ebony and they were incredibly valuable. And because people had no idea where they came from, they're called Coco de Mer because they thought that there must be coconuts growing at the bottom of the ocean which obviously is not what they were doing!

This incredible huge nut comes from these beautiful palm trees with immense leaves. The forest is very beautiful, very still, very quiet and just has a small number of weird associated endemic animals. The nuts feed the growing tree for several years; they can draw resources from the nut and it's an adaptation to these extremely phosphorus poor soils. It's sort of competition gone mad. If you don't provision your offspring with an enormous store of phosphorus then there's no way that they can get the resources needed to get up to the canopy and produce a big enough root system that they can start extracting nutrients for themselves. They also have separate male and female trees and when the first European came to this forest, he thought it was the Garden of Eden because the nuts look a bit like a woman's bottom and the male flowers are incredibly phallic. So, he thought, this must be the Garden of Eden, this is it, I've found it!



Listen to the whole 30 minute interview on our YouTube channel [here](#)

Check out Lindsay's YouTube podcasts "Back Garden Biology" [This is one on Arum!](#) & [Chapter 9 of Lindsay's book is all about plants](#)

Google @BiologyWholeStory or Back Garden Biology



*Thank you Lindsay,
it was a pleasure!*

BUC TASTER QUESTIONS!



For those new to *The Thymes* and BUC, we include questions in each issue from previous BUCs for insight and also to help BUC revision! These are a mixture of multiple-choice questions (MCQs) and open questions. Check the Answers on page 8.

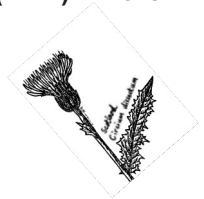
Question 1. The star fruit or carambola is in the same family as:

- a) Sheep's sorrel
- b) Wood sorrel
- c) Black bryony
- d) White bryony
- e) Dog rose



Question 2. Which of the following plants do not have arbuscular mycorrhizal fungi (AMF) in their roots?

- a) Broad beans
- b) Dahlias
- c) Brussel sprouts
- d) Strawberries
- e) Raspberries



Question 3. What can *Arachis hypogaea*, *Sesamum indicum*, *Brassica napus* and *Cocos nucifera* all commonly be used as?

- a) leaf vegetables
- b) cooking oil
- c) flour substitutes
- d) insect repellents
- e) building materials



Question 4. In the British flora, what genus contains the species *articulatus*, *effusus*, *conglomeratus* and *bufonius*?

5. Identify the host of this leaf gall [below]



Image credit Wikimedia Commons: Lairaich Rig CC BY-SA 2.0

BUC ALUMNI: JOSHUA STYLES

Joshua Styles, British Botany



Hi! My name's Josh and I've been asked to write this little blog to talk about my time as an ecologist. Where to begin?...

Since I was six or seven, I've had a fascination with plants, starting by growing sunflowers with fruit and veggies. It wasn't until later after watching Gardener's World where Monty Don promoted the use of wildflowers in gardens that I decided it'd be good to branch out. Weeks went by where I was pestering mum to buy some wildflower seeds and, once I'd got my hands on them, decided to establish a 1m x 1m patch of native wild plants. Later on that Summer I distinctly recall coming home from primary school, sitting by it for hours and watching all manner of invertebrates using the plants, from butterflies and moths to flies, thrips and more. It was at that time I came to a tangibly important realisation – plants are the cornerstone of life and native plants in particular are seriously important for native biodiversity.



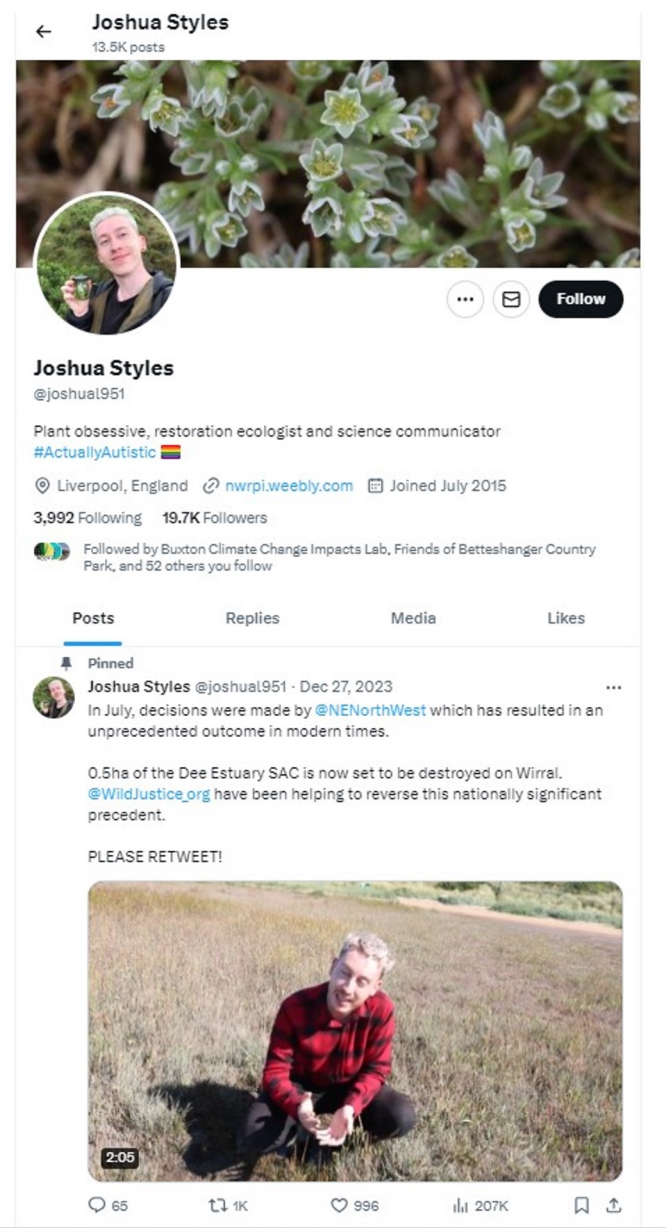
Taking my love of plants further, I began in my teens volunteering with Cheshire Wildlife Trust and others which later led me to study for an undergraduate degree in Ecology from the utterly fantastic Edge Hill University in Lancashire. Oddly enough, it was after a drunken night out at 1am in my third year where my consultancy career properly began. Copious amounts of vodka and Red Bull instilled too much energy to sleep and so, once I had gotten home, I at long last decided to create a LinkedIn profile and added lots of professionals across the environment sector. To my shock (and out of pure luck!), the next morning I had actually received an invitation for a work interview at a brilliant small ecological consultancy where I ended up working for four years.

I'm now 8 years' on from beginning my journey into ecology consultancy where I've been involved in survey and assessment and much more over hundreds of sites, alongside some exciting stuff outside of work related to conservation and television filmed mostly on my bad hair days!

There have definitely been downsides during my time as a consultant, from clients who pay you no heed, to projects which have inescapable negative environmental outcomes. That being said, ecological consultancy is in transition. We have, as of late, begun the transition from a bat and newt-centric industry to one which is finally more well-rounded, with a focus on habitats and plants as Biodiversity Net Gain comes into force in early 2024, requiring all developments to secure quantifiable gains in biodiversity. Consultancy looks to me to be moving in the right direction for biodiversity in general. All it needs now is more people that really care – could that be you?

Read more about Josh on his website: [Ecological Consultancy | Biodiversity & Ecological Consultant – British Botany](#)

Josh also has active social media. X: [@joshual951](#)



BUC AT BRITISH AND IRISH BOTANICAL CONFERENCE 2023

By Meriel Jones, BUC Team member

This one-day event was held in Newcastle-upon-Tyne in December involving the Botanical Society of Britain and Ireland (BSBI) and the Natural History Society of Northumbria (NHSN). This annual event brings together enthusiastic and passionate professional and amateur botanists. As well as meeting up and talking with friends and inspecting displays from book-shops and publishers, there are always a range of talks about plants and botany.

This year's themes were urban botany, supporting the botanical community and also how botanical research can help address biodiversity loss and climate change. As well as recounting the BSBI's work in plant recording and providing plant ID training, one highlight was Tash Foxford's account of how she went from being hardly able to identify any plants to knowing over 300 wild species in 2023 ([see the video on BSBI's YouTube channel](#)).

Sebastian Stroud talked about how BUC helps to address the gap in field botany ID skills. He's a postgraduate student at University of Leeds keen on urban botany who has helped with the technical side of BUC for many years. The talk was developed in collaboration with Jonathan Mitchley (Dr M) at University of Reading who is one of the originators of Botanical University Challenge.

Plants are firmly inter-connected with everyday life, and the the millennium development goals, (think food, clothes, building materials, energy sources, carbon sequestration, attractive green surroundings) but they are not always sufficiently appreciated for their global importance. People and politicians need to up their plant awareness! BUC aims to tackle this by championing and supporting plant-aware students across Britain and Ireland ([YouTube link here](#)).



Above: James Common presenting the urban plants of Newcastle

This was followed by John Warren, another of BUC's originators, introducing his latest book, *Puzzling Plants and Frustrating Flowers*, that aims to give practical help in identifying some tricky members of the British and Irish flora. He explained the thoughts behind the book and what went into its design here (also see *The Thymes* Issue 5).

In another fascinating talk, BSBI President Micheline Sheehy-Skeffington explained how a combination of genetics, history and plant recording can help explain the disjunct distribution of species from the Lusitanian flora (e.g. the strawberry tree, *Arbutus unedo*) which occur in Spain and Ireland but rarely in between. Watch her talk here: [Ireland's Lusitanian Flora – mining, smuggling, pilgrimages & the Ericaceae](#).

James Common and Martin Allan showed how the plants in towns, even those in garden lawns, provide hints to ancient land uses. (Check out the YouTube videos [here](#) and [here](#)). Joshua Styles & Jane Turner enthusiastically described how new sand-dunes were forming on a seashore at Merseyside, accompanied by an increasing number of plants, including several rare ones.

As well as the talks, there was an opportunity to visit the NHSN archives at the Great North Museum with botanical paintings by Margaret Dickinson (images below) along with the actual plants she based them on.

There was also an opportunity to attend a dandelion workshop led by John Richards, the BSBI's national Dandelion referee.



Above: Getting started with plant ID by Natasha Foxford



Above: BSBI conference attendees!



Above: paintings by Margaret Dickinson. Source: Wikimedia commons CC-BY-SA2. Left: Margaret Rebecca Dickinson Watercolor No 21 Germander Speedwell; right: Margaret Rebecca Dickinson Watercolor No 366 Colt's-foot.

The BSBI Annual Summer Meeting 2024 will be held 20th- 24th May in Guernsey. It is open to all botanists (not just BSBI members!)



CAREERS & COURSES: PhD to Postdoc

Hattie Roberts, Lancaster University



Many of our BUC community are PGRs or may be considering an academic career. The transition from PhD to a postdoctoral research associate (PRDA) may be a logical step for some, but what are the differences (or similarities) between the two? Here are a few I've found:

- **What? I'm no longer a student?!** Yes, a postdoc is not a student, but a staff member, with the benefits that employment brings (i.e. employee rights, pension schemes, travel discounts, health and social support). But while you may see an increased salary, you will also pay tax (PhD stipends are usually tax-exempt).
- **Teamwork and collaboration.** PhD projects tend to be independent and sometimes isolating, with limited opportunities (or encouragement) to collaborate beyond academic supervisors. However, postdocs usually play a key role in a larger project with coordination from many more colleagues- something that new postdocs as fully-fledged independent researchers could find challenging.
- **Time management.** A postdoc is contracted to work for specified hours a week. While a full-time PhD student is encouraged to commit ~40 hours to their project weekly, I found that many PhD friends' hours exceeded this (and I probably did too). Also, many employers offer flexi-time, where an employee may work outside traditional workplace hours. Since starting my postdoc, I feel I don't have to work (or worry) for every waking hour and have re-claimed my work-life balance.
- **Research and responsibilities.** Similarly, a postdoc's employment contract will detail the responsibilities involved in the role, such as practical work, data analysis, writing and publications anticipated. There may also be teaching, or supervisory responsibilities involved, depending on the role.
- **Creativity.** While a postdoc has clear roles and responsibilities, your line manager will not micromanage your time nor your research outputs. You will be encouraged to use the skills acquired in your PhD and to bring your flare to the project!

Some helpful resources for PGRs and jobseekers:

- **Countryside Jobs Service** – an extensive platform for latest environmental jobs refine your search by geographical area, entry level, or sector.
- **EnvironmentJob** – refine your search by geographical area, key words, or entry level.
- **FindAPhD** and **FindAPostdoc** – many (but not all) projects are advertised here. You can sign up to the newsletters to stay informed of the latest opportunities.
- **LinkedIn** – Since Twitter's Blue Bird flew away, many have migrated to LinkedIn to post regularly about their professional development. Training and jobs are advertised, and LinkedIn has its own job search platform. Make and update a profile regularly to get noticed!
- **Your institute/alumni careers service** – Most universities and colleges have careers officers to assist with career development, CVs and training.

Hattie is a Postdoctoral Research Associate in plant physiology and anatomy in The Lundgren Lab, Lancaster University. [See more here!](#)



ABOUT *The Thymes* TEAM

Layout and Design: Hattie Roberts (Lancaster University),
Graphics: Yi Zhao (University of Cambridge).
Editors: Hattie Roberts, Meriel Jones (University of Liverpool, retired), John Warren (Associate Tutor FSC), Jonathan Mitchley (University of Reading).

Special Thanks to Dr Sarah Dalrymple, Dr Micheline Sheehy Skeffington, Dr Leif Bersweden, Dr Alastair Culham, Professor Lindsay Turnbull, and Joshua Styles.

Contribute to *The Thymes*

Do you have a botanical story or other content to contribute? Are you interested in editing or design? We need your skills and enthusiasm! Contact us: botanicaluniversitychallenge@gmail.com



Joke Thyme!
How do botanists whistle? They just put tulips together and blow!
BOOM BOOM!



Got a botanical joke or pun? Send it!

Enjoying *The Thymes*?

The *Thymes* Team are always pleased to get feedback from our readers, complete our short readers' survey [here](#) or via the QR code.



OUR BUC 2024 SPONSORS

BUC 2024 is only possible due to generous financial support from [New Phytologist Foundation](#), [Gatsby Charitable Foundation](#) and a growing list of others. In addition the [Field Studies Council](#) and [Botanical Society of Britain and Ireland](#) donated publications and on-line memberships as prizes and gave support in kind.

BUC 2024 is an ambitious undertaking boasting three online rounds and live finals and the 2nd Student Botany Festival spanning three days at the University of Oxford. The BUC 2024 Funding Team are currently investigating opportunities from a range of sponsors. If any readers have ideas for potential sponsors please email us at: botanicaluniversitychallenge@gmail.com



GATSBY



New Phytologist



Field Studies Council



Botanical Society of Britain & Ireland

Date of Next Issue: April 2024

Answers to the BUC taster questions (NB All have featured in previous BUC contests):

1. b. Wood sorrel
2. c. Brussel sprouts
3. b. cooking oil
4. Juncus
5. Large leaved lime *Tilia platyphyllos*