



BOTANICAL UNIVERSITY CHALLENGE 2025 IMPACT REPORT



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Botanical University Challenge

Impact Report for BUC 2025



What is BUC?

The Botanical University Challenge (BUC) is a dynamic and educational quiz that celebrates plants and the next generation of botanists and plant enthusiasts. First held at Kew Gardens in 2016, BUC brings together university teams from across the UK and Ireland to compete through online rounds and a live final for a prestigious trophy. In addition to the quiz, BUC aims to inspire and support the next generation of botanists while fostering a vibrant plant science community. The live finals are combined with a student botany festival, further enriching the experience.

In this report, Dr Lauren Baker, Secondary Education Officer at the Oxford Botanic Garden and Arboretum and the member of the 2025 BUC Planning Team highlights the impact of BUC 2025 on plant-aware students across the UK and Ireland.

Why was BUC set up?

BUC was founded in 2016 by professors John Warren (Aberystwyth), Jonathan Mitchley (Reading), and Paul Ashton (Edge Hill) in response to a noticeable decline in plant identification skills among biology students. Their research revealed that UK biology curricula had shifted focus to topics like plant reproduction and energy flows, with little attention given to ecology or plant identification.

Data from the Higher Education Statistics Agency showed a significant reduction in botany courses and modules at universities, leaving botany students feeling isolated and disconnected. Many struggled to develop "Nature literacy"—a critical employability skill in fields like ecological consultancy — due to limited training and networking opportunities.

BUC was established to address this gap, promoting botanical knowledge through its quiz and providing young botanists with the chance to connect, collaborate, and network with peers and professionals both within and outside of academic settings.

The Development of BUC

Covering topics from plant identification to biotechnology, BUC quickly became more than a fun quiz, helping to reverse the decline in botanical skills in higher education. What began with just five teams at Kew has grown year-on-year, with 20 teams participating online in the pandemic era of 2021 and 2022. In 2023, BUC returned in person and was hosted by the University of Nottingham. 25 teams competed and the event also expanded to include a Student Botany Festival with workshops, competitions, and networking opportunities to develop students further.

In 2024, 28 teams competed, with the semi-finals, finals and 2nd Student Botany Festival taking place at the University of Oxford, hosted by the Oxford Botanic Garden and Arboretum. The festival was extended to two days to accommodate more programming and networking activities.

Finally, in 2025, a record 31 teams took part and a record 94 students attended the 3rd Student Botany Festival, held at the Sainsbury Laboratory Cambridge University (SLCU) and hosted by Cambridge University Botanic Garden (CUBG).

The Aims of BUC

At its heart, BUC has three core aims:

1. **Fostering Community:** BUC creates a sense of belonging among young botanists, connecting them with like-minded peers and reducing feelings of isolation, which helps to inspire and support their pursuit of careers in botany.
2. **Nurturing Botanical Knowledge:** Through its quizzes and events, BUC reinforces students' understanding of plants and their ecological roles. Workshops, talks, and tours further broaden their botanical knowledge.
3. **Inspiring Future Botanists:** With plants playing a vital role in addressing global challenges like climate change and biodiversity loss, BUC aims to mentor and support the next generation of botanists, helping to build a worldwide network of experts through fun, valuable educational experiences.

Summary of BUC 2025

In 2025, a record 155 students in 31 teams participated in the online heats, with 94 students attending the finals and Student Botany Festival in Cambridge from 20th – 22nd August. Key highlights of the programme included:

- **University of Aberdeen** won a nail-biting final against the University of Plymouth.
- **11 academics and industry experts** delivered talks in two diverse sessions on careers inside and outside academia, as well as a plant science research showcase.
- **Ruth Davis OBE**, the UK Special Representative for Nature, gave a brilliant keynote address.
- **10 botanical and environmental organisations** participated in the Careers Showcase, offering students networking opportunities and career advice.
- **8 workshops** were held on topics such as botanical identification, native plants, an introduction to taxonomy, plant-insect interactions workshops, tropical botany workshops, orchid identification and dissection, and science communication.

Participation in BUC was free of charge to students and included accommodation and catering for two nights in Homerton College. The full programme is shared with all funders as part of this report.



Student Feedback from BUC 2025

Out of the 94 student attendees, 54 completed the feedback survey by 20th October 2025; a 57% response rate.

Attendance of other botanical training events

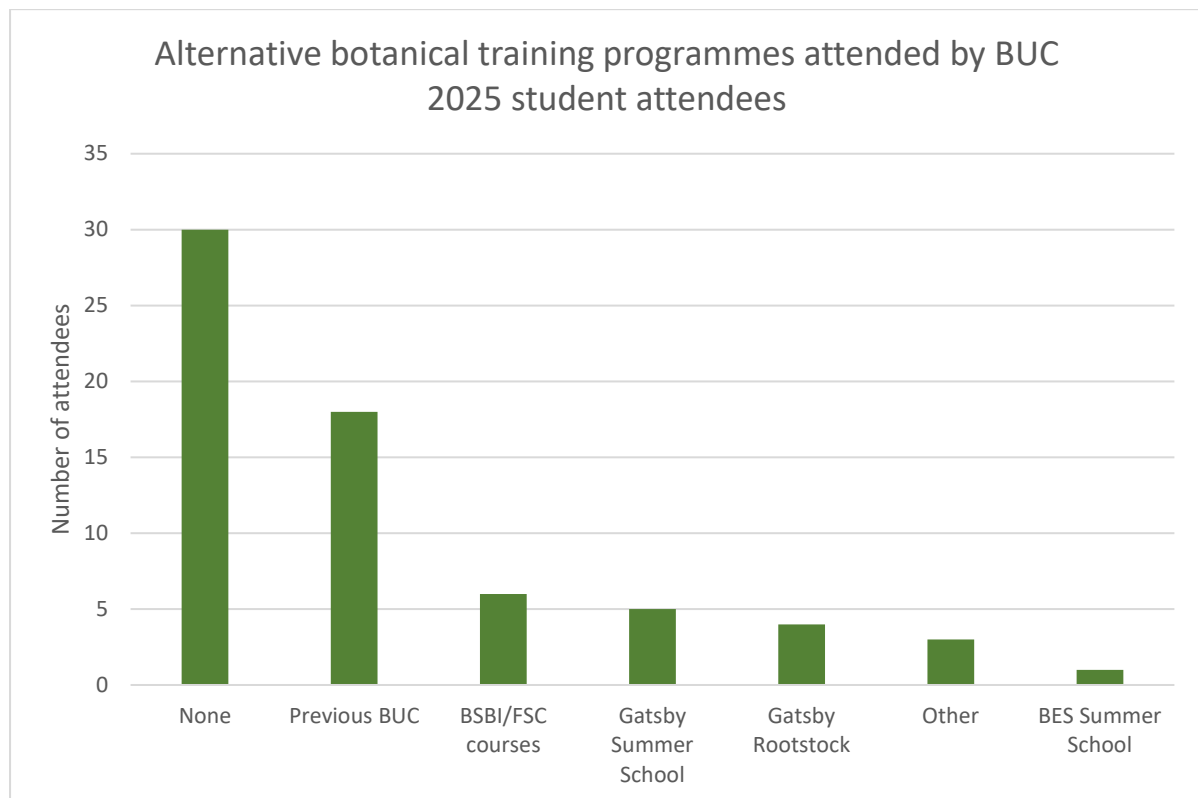
To assess whether BUC is attracting a different demographic compared to existing botanical training opportunities, students were asked if they had participated in other botanical skills training events. The list of programmes was curated by the BUC Planning Team, with an 'Other' option available for less well-known courses.

Of the 54 respondents, 30 had not attended any other botanical training programme. The remaining 24 had participated in at least one other programme, with BSBI or FSC courses being the most common alternatives. Notably, no student had attended more than two programmes.

This year, we tweaked our evaluation to monitor how many attendees were returning to BUC, and 16 respondents had attended a previous Botanical University Challenge.

Three students selected the 'Other' option, citing events including plant specific group meetings (British Pteridological Society, or the North East Scotland Biological Records Centre meeting (NESBREC)).

These findings indicate that BUC is successfully reaching a broader and more diverse audience of students, many of whom have limited exposure to other formal training opportunities. This highlights the event's unique appeal and potential to fill a gap in current botanical education offerings.



opportunities, were mentioned 26 times. Inspirational words were submitted 25 times, and words associated with fun or enjoyment appeared 37 times.

The table below summarises the data shown in the word cloud, including the raw terms provided by students, with no duplicates.

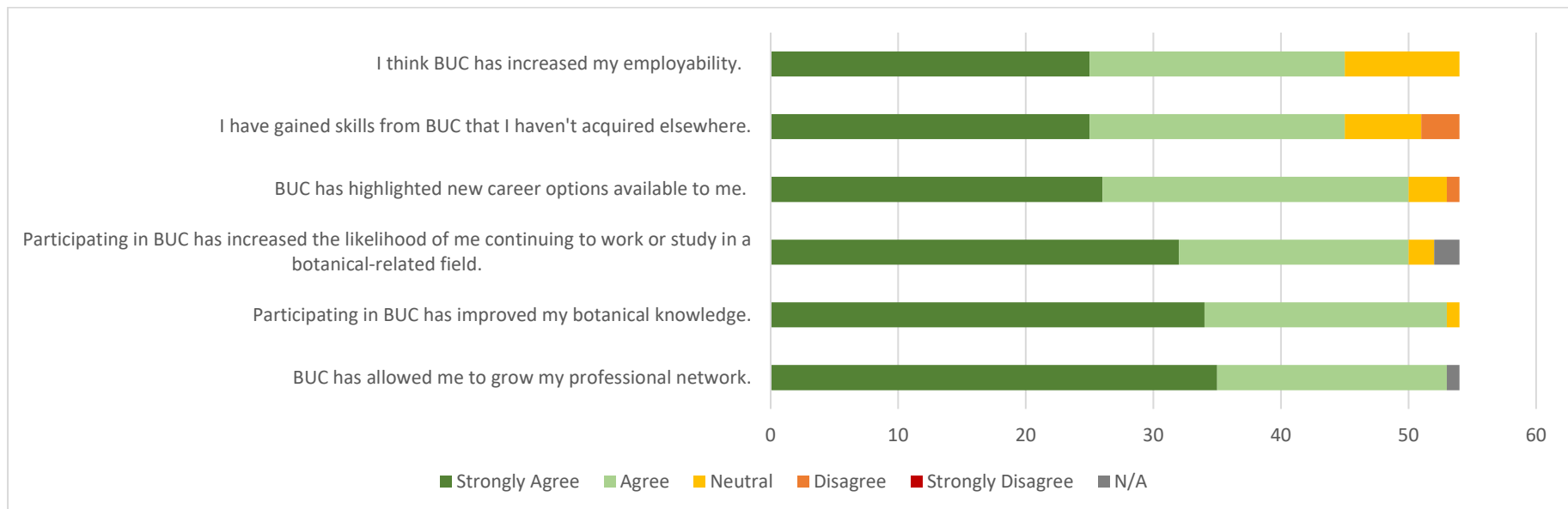
Theme	Words Submitted	Count
Connection	Sharing, Togetherness, Connection, Belonging, Community, People, Networking, Finding my Tribe, Friends, Inclusion, Like-minded	36
Education	Opportunity, Knowledge, Academic, Competition, Student-focused, Plants, Education, Informative, Growth, Learning, Botany, Discovering, Expansion, Confidence, Challenge, Experience	26
Inspiration	Motivational, Inspirational, Insightful, Discovery, Rewarding, Futuristic approach, Hope, Aspiration, Refreshing, Rewarding, Optimism, Encouragement, Employability	25
Fun	Interesting, Amazing, Good, Fun, Exciting, Invaluable, Celebration, Friends, Enjoyment, Passion, Funny, Enthusiasm, Engaging, Joy, Happiness, Brilliant	37



Student perception in the value of BUC

Students were presented with a series of statements to evaluate the perceived value of participating in BUC. The results indicate a strong positive impact across all six areas:

- 53 out of 54 (98.1%) agreed or strongly agreed that their botanical knowledge had increased through participation.
- 53 out of 54 (98.1%) agreed or strongly agreed that BUC had helped them grow their professional network.
- 50 out of 54 (92.6%) agreed or strongly agreed that BUC had increased the likelihood of continuing to work or study in a botanical field.
- 52 out of 58 (92.6%) agreed or strongly agreed that BUC had introduced them to new career options.
- 45 attendees (83.3%) agreed or strongly agreed that they gained skills through BUC that they could not acquire elsewhere.
- Lastly, 45 out of 54 (83.3%) attendees agreed or strongly agreed that BUC had improved their employability.



Student rating of BUC 2025

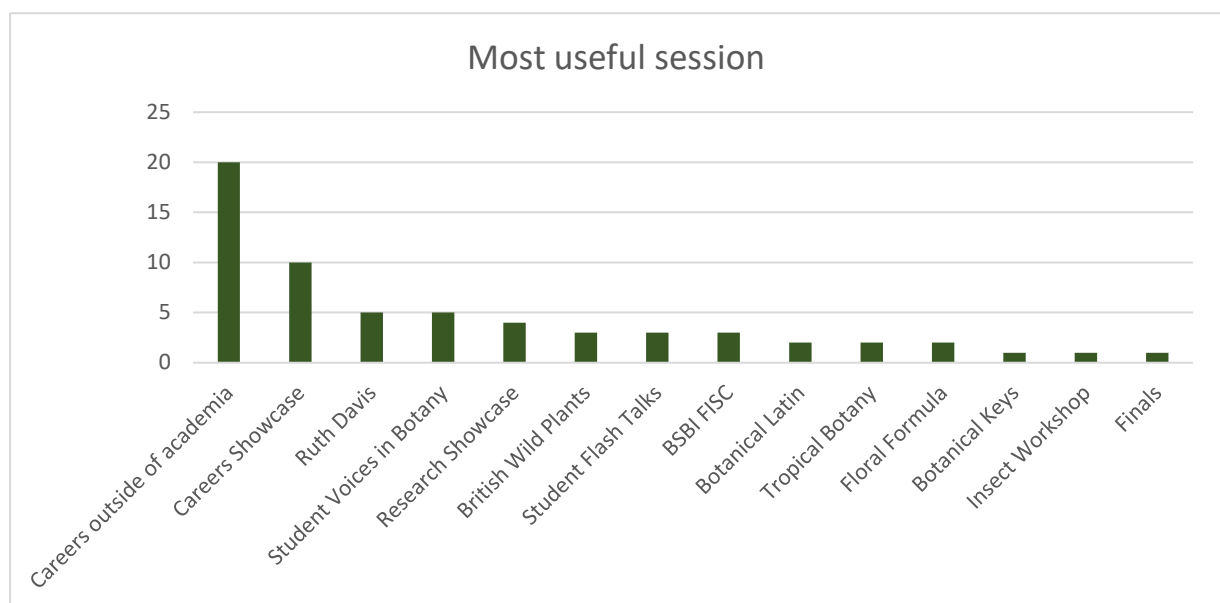
When asked to rank BUC 2025 on a scale of 1-5 stars, the average rating was 4.8 stars, indicating very high overall satisfaction with BUC 2025 attendees. Individual feedback from attendees further supports the positive impact BUC has on attendees:

“Thank you so much for this opportunity! I am very grateful for the amazing speakers that gave such interesting talks and to the great organisation of the festival. Plus the food was amazing and very much appreciated. It's very refreshing to go to a university related event and to be treated like academics, not like children - very much appreciated” – quote from student.

“Each year, I leave the Student Botany Festival feeling absolutely inspired and motivated to continue towards a career with plants! A lot of people I know consider plants boring and pointless, and think me a bit weird for being so enthralled with them. But spending a few days surrounded by like-minded plant nerds reminds me that there is nothing strange about it! In fact, it is an incredibly important subject! I believe the SBF (Student Botany Festival) gives me an annual reminder to keep pursuing this vital subject, and that I am not alone in my interests and many others share this passion for plants! Honestly, from the bottom of my heart, thank you sooo much to everyone who makes these events happen! I am so incredibly grateful for them!” – quote from student.

Sessions of most use for professional/academic development

Students were asked which session they found most useful for their professional or academic development, with an open-ended option to list more than one session. The responses revealed a broad range of preferences, though the most popular was the **"Careers Outside of Academia"** session, mentioned by 20 students. The same trend was seen in the evaluation from BUC 2024



The **"Careers Showcase"** also received significant positive feedback, as did **Ruth Davis' keynote**, and the **"Student Voices in Botany"** botany, where attendees candidly discussed their experiences of botany in education so far, providing data for ongoing research in an informal setting.

62 submissions were given from the 54 respondents, as some students listed multiple sessions in their response. This figure shows the diversity of sessions that students found useful for their development and the range of opportunities provided by the BUC Student Botany Festival.

Impact of BUC on career aspirations

Students were asked to describe the impact BUC 2025 had on their career aspirations. Responses to the open-ended question were analysed for recurring themes.

Of the 50 open-ended responses received, around three-quarters (~75%) described a clear impact on students' career aspirations. Roughly half of respondents (~25 participants) said BUC broadened their awareness of the *diverse and non-linear career pathways* within plant science, particularly outside academia, such as consultancy, conservation, and education. One student noted:

"It's really shown me the power of botany and how it brings people together. It makes me more determined to go into teaching and share my love of plants with people."

A further third (~15 respondents) reported that the event *reinforced or clarified* their existing career direction, while around a quarter (~12 respondents) emphasised *increased motivation and confidence* to pursue their goals. Many also highlighted the *value of networking* with peers and professionals, with several noting that BUC directly informed their research choices or future career plans:

"It made me more hopeful for a career outside academia that isn't solely in ecological surveying... it was fantastic to hear from people from a variety of backgrounds that have ended up in plant science, that not everything is as linear as studying for a bachelors, masters, PhD in sequence."

These responses clearly demonstrate BUC is achieving one of its core goals of **inspiring future botanists**, supporting their education through fun, diverse programming centred around a friendly competition and facilitating the creation of new professional networks that could last their entire careers.



Specific connections or collaborations

A second open-ended question asked students about specific connections that had arisen directly from participating in BUC. Of the 55 responses, around **80% (~44 participants)** reported making new professional or peer connections through BUC. These ranged from informal friendships to direct collaborations and research opportunities.

- **Cross-university networking:** About **two-thirds (~36 respondents)** mentioned connecting with students from other institutions — often via the LinkedIn group, social media, or shared society projects. Several noted plans for **joint events, talks, or field trips** between university plant societies.
- **Professional and expert links:** Around **a third (~18 respondents)** described new relationships with professionals, including bryologists, consultants, and staff from BSBI, Kew, RBGE, and CIEEM. A few reported **career or research outcomes**, such as internship support, supervisor introductions, or dissertation advice.
- **Community and belonging:** Roughly **a quarter (~12 respondents)** highlighted a growing sense of **community and continuity**, describing friendships that now extend to conferences and future collaborations.

Two notable quotes from students were:

“I’ve made some friends for life and connected with professionals I would never have had the privilege to meet otherwise!”

“If you have any interest in plants, ecology and the natural world, BUC is an unparalleled opportunity to connect with people who share your passion and discover the possibilities for applying your knowledge and enthusiasm in your future career.”

This feedback provides strong, demonstrable evidence that BUC is achieving its core aim of **fostering community**.



A message to the participants of BUC 2026

The penultimate compulsory question for BUC 2025 attendees was: "What would you say to students considering taking part in BUC 2026?" This open-ended question allowed for responses of any length.

Out of 54 respondents, 53 directly encouraged others to participate, with 25 using the phrase "Do it" in their feedback. Many respondents elaborated on their encouragement by highlighting several key aspects:

- **Fun:** 55% described BUC as highly enjoyable.
- **Reassurance:** 27% emphasized that the event is supportive and not stressful, daunting, or intimidating.
- **Educational Value:** 30% noted the opportunity for significant learning.
- **Community Building:** 47% mentioned the chance to connect with like-minded peers and mentors.
- **Overall Value:** 68% characterized BUC as a valuable and worthwhile experience that positively impacted their development and/or career.

To illustrate the personal impact of BUC, here are a few selected quotes from participants:

"Do it! Take part! Experience a world of first class botanical euphoria!"

"Go for it! It's an amazing experience and you're left feeling really connected to other students and academics across the UK and further afield! Botany doesn't feel like a lonely discipline anymore!"

"Absolutely do it, even if you're normally anxious in large groups of people. Everyone were the most caring and inclusive people I have ever met. And the competition is so fun! It really stretches you but you learn so much!"

Go for it! There is nothing to lose but so much to gain. The competition is really great fun and a way to show off your knowledge. The student botany festival was a huge bonus that I really couldn't believe was free - it was incredibly well organised and there is something for everyone. I am very grateful for the experience and would recommend to anyone considering it. :)

Evaluating the success of BUC 2025

BUC 2025 was the largest event to date. This continuous growth shows previous years has provided a product of value to participants, but to truly analyse the success of BUC 2025, it is important to use the evaluation data and compare it to the core aims of BUC:

Fostering community was evident as students highlighted the strong sense of belonging and the valuable networking opportunities provided, with many expressing that BUC allowed them to connect with like-minded peers and mentors.

In terms of **nurturing botanical knowledge**, participants consistently praised the educational value of the competition and related sessions, noting significant gains in their understanding of botany and plant sciences.

Finally, BUC 2025 succeeded in **inspiring future botanists** by exposing students to diverse career paths and encouraging further study. Respondents reported increased ambition, a heightened sense of career possibilities, and a reinforced commitment to pursuing careers in botany. Overall, the feedback underscores BUC's success in creating a supportive, informative, and motivational environment for its participants.

The Vital Support from BUC Donors

None of this would have been possible without the generous support of donors who contributed both with monetary and in-kind donations.

BUC supports widening participation and prides itself in having an open to all policy. Donor support ensured that students from a wide range of backgrounds were able to participate in such an inspiring event, without worrying about financial considerations. We hope you have enjoyed hearing from the student participants of BUC 2025, your contributions made a huge difference to them.

The BUC planning team would like to thank the following organisations for their valued support which collectively provided £ £39,394.77:

- The Gatsby Foundation
- New Phytologist Foundation
- University of Cambridge
- The Company of Biologists
- Botanical Society of Scotland
- Ecology Co-op
- Royal Botanic Garden Edinburgh
- SLR Consulting
- The Botanist Foundation
- The Wild Flower Society
- University of Bristol
- University of Reading
- University of York
- Castle Hill Ecology
- Durham University
- Edge Hill University
- Trinity College Dublin
- University College Dublin
- University of Aberdeen
- University of Cambridge, Plant Sciences Department
- University of Cambridge, Crop Science Centre
- University of Leeds
- University of Plymouth
- And private donors

The BUC planning team would also like to thank the following organisations for their support of BUC 2025 through donating prizes, running workshops, or offering operational support and discounts:

- Cambridge University Botanic Garden
- Sainsburys Laboratory Cambridge University
- Field Studies Council (FSC)
- Botanical Society of Britain and Ireland (BSBI)
- Chartered Institute for Ecology and Environmental Management (CIEEM)
- Science and Plants in School (SAPS)
- Gatsby Plant Science Education Programme

There is no doubt that the external funding that was received enabled BUC 2025 to run, and ensured that more students than ever were able to participate.

A final huge thanks must go to the lead organiser of the BUC 2025 Final and Student Botany Festival, Dr Raphaella Hull, Higher Education and Interpretation Coordinator at Cambridge University Botanic Garden. Without her, this event would not have happened.



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