

ISSUE #3 BUC NEWS, GET CREATIVE COMPETITION, BUC QUESTIONS, CNC NATURE CHALLENGE, PLANT SWAP, TASTER QUESTIONS, AND MORE!

BUC 2023 - BIGGEST AND BEST YET! ROUNDS 1 AND 2 COMPLETE - WHAT A SHOW!

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With BUC Planning Team

This is a year of several FIRSTS for Botanical University Challenge. FIRST with 25 teams, FIRST to be held over 3 days, and FIRST to have a dedicated Student Botany Festival for student competitors. However, the enthusiasm of the students and their botanical knowledge has been the same as ever -VERY HIGH! The amazing student teams were from the Universities of Aberdeen, Aberystwyth, Bristol, Cambridge, Dundee, Durham, East Anglia, Edge Hill, Exeter, Galway, Imperial College London, Lancaster, Liverpool, Manchester, Manchester Metropolitan, Nottingham, Oxford. Portsmouth. Reading, Southampton, Trinity College Dublin, University College Dublin and Warwick as well as the Eden Project and Royal Botanic Gardens Kew. The first two rounds were held over the internet and streamed live on YouTube.

In Round 1 (15th February) all teams selected answers to 60 multiple-choice questions about British & Irish plants, world plants, plant biology, plant ecology and botanical terms asked by the two expert botanists chairing the event Dr Leif Bersweden and

Check our website
https://botanicaluniversitychallenge.co.uk/
For further information email BUC at
botanicaluniversitychallenge@gmail.com

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Dr Henry Ford. The 8 teams with the highest scores would go through to the quarter finals in Round 2. The audience could play along at home and see if they could out-score the teams.

"Excellent vibe, fun to learn along!" (audience member quote)



The final round of questions was set by the two chairs. At the end, there was a tie-break between Bristol and Trinity College Dublin, and they **still** had equal scores after the tie-breaker round! So, they both joined teams from Cambridge, Eden Project, Galway, Royal Botanic Gardens Kew, Manchester Metropolitan, Oxford and Warwick in Round 2 (the following week).



5th July Semi Finals and Final, live and streamed from 14:00, University of Nottingham. For tickets to watch the live stream, click here

5th & 6th July The First Student Botany Festival!

Watch past BUC contests on our YouTube channel www.youtube.com/@BotanicalUniversityChallenge

1st & 2nd ROUNDS (cont.)

Round 2 (22 February) started with more multiple choice questions, this time asked by chairs Dr Tiina Säarkinen, (Royal Botanic Garden Edinburgh) and Professor Paul Ashton (Edge Hill University). After a further tense tie-breaker won by Trinity College Dublin, the student teams had to answer individual sets of questions with different questions for each team. At the end, the four teams with the highest scores were Cambridge, Eden Project, Manchester Metropolitan and Oxford who will compete live in the semi-finals on 5th July at University of Nottingham.



MEET THE CHAIRS: BUC 2023 FINALS

With BUC Planning Team

Two more top botanical experts will quiz the teams in the BUC semi-finals and final: Professor Beverley Glover and Dr Amanda Rasmussen.

Beverley is Director of Cambridge University Botanic Garden and Head of the Evolution and Development Group in the Department of Plant Sciences at the University of Cambridge. Her research investigates the evolution and development of features in flowers that attract pollinating insects. She combines and integrates several approaches to this problem, using molecular biology as well as functional analyses with bumblebees and other pollinators.

Amanda is Assistant Professor at the University of Nottingham, researching adventitious roots including cutting propagation, maize roots and aerial roots on tropical and subtropical houseplants. Her research explores the hormone networks and environmental factors that control adventitious root production and aims to determine the physiological or support roles of these roots.



BUC 2023: EVERYONE'S A WINNER!



With Dr M



BUC 2023 has been bumper year for prizes!

FSC plant ID guide prizes for round 1 and 2 have been posted to 16 teams and BSBI membership Prizes have been awarded to the 9 round 2 teams.

The remaining FSC prizes will be handed to semifinalists and finalists in July.

A new carved wood trophy will be presented to the winning team in July (more details on page 3).

All BUC 2023 student participants have been sent the registration form for the Nottingham Student Botany Festival and we look forward to meeting up with them all face to face for the Student Botany Festival in July!

That's a lot of prizes but there's more...!

BUC 2023 TEAM NAME PRIZES!

Students rose to the challenge and came up with clever and funny names including: Arabi-can't-top-this, Ptrinity Pteridophytes, Heavy Petal, Bristol Pistils, Bad Birches, Oopsie Daisies and The Dandelion the Witch and the Wardrobe!

However, in our post BUC2023 audience survey we asked the audience to pick their favourite team names, and we are delighted to announce that the top two names selected were:

1st Prize We Don't Know the Anther (Nottingham - 44% of the responses).

2nd Prize *Quizanthemums* (Exeter - 33% of responses).

Congratulations! Your prizes will be awarded at the Student Botany Festival, Nottingham in July.

Thanks to all teams for your imaginative responses to BUC 2023 team names. We know everyone enjoyed them and that's just another part of what makes BUC so special!

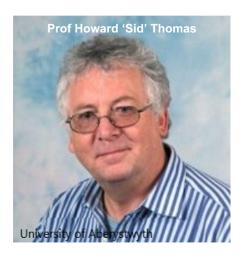
A BOTANICALLY SIGNIFICANT BUC TROPHY, IN HONOUR OF A REMARKABLE PLANT SCIENTIST

And His Wonderful Botanical Books as Prizes at the Student Botany Festival With Prof. John Warren



Prof. Howard (Sid) Thomas was a remarkable man: Professor of Biology at University of Aberystwyth, he was a most original thinker, a great plant scientist, and a supporter of Botanical University Challenge right from its foundation in 2016. Sid was also a jazz musician/composer and his interest in plants extended into literature and beyond. No surprise therefore that the first BUC event at Kew included some devilish tricky questions by Sid, about plants, music and literature, for example what plants festooned King Lear's crown and what did they signify? (Answer on page 8!) Sadly, Sid died in July 2022, but thanks to Sid's wife Helen Ougham, in his memory students will be able to enjoy Sid's botanical writing as copies of three of his books will be freely available at the Student Botany Festival.





Senescence (2016). Understanding programmed plant cell death was a big part of Sid's research. This compilation of mini-essays on life and death in plants is a real page-turner.

The war between trees and grasses (2017). Our world is dominated by woodlands and grasslands. These have co-evolved with humans and grazing animals. The balance between these two dominant types of vegetation have shifted over time. This book will make you think again about the evolution of plants and humans.

A tale of three little pigments (2018). You have to admit, that's a fantastic title for a book about plant pigments, but you are going to enjoy more than just the title. This book explores why and how plants are the amazing colours they are, and how this affects humans and other species.

New BUC Trophy for 2023

In previous BUCs different trophies have been awarded to the winning teams. This year the Organizing Team have commissioned a trophy that can be transferred from winning team to winning team each year. But what should such a trophy be? It seems appropriate that the BUC Trophy be made of a plant material and should have space to include the name of each year's winning institution.



The trophy is being crafted by skilled wood-turner Mike Warren. It will incorporate the timber of tree species in the proportions they occur in the *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland (NVC W10 - see floristic table below). This plant community - commonly known as bluebell woodland - is considered by many to be the natural climax vegetation that would dominate much of Britain and Ireland if succession was allowed to run.

Making this BUC trophy presents challenges: Firstly, acquiring timber of the appropriate dimensions, then being sensitive to the physical properties of the different woods and, finally, the trophy must be completed in time for the July finals. The new BUC Trophy will be awarded in honour of Professor Howard (Sid) Thomas, in grateful recognition of his support for BUC and help in its establishment.

NVC Floristic Table for W10 - Quercus robur - Pteridium aquilinum - Rubus fruticosus woodland

Tree Species	Frequency & Abundance
Quercus robur	III (2-10)
Betula pendula	III (2-9)
Fagus sylvatica	I (1-10)
Sorbus aucuparia	l (1-5)
llex aquifolium	I (1-5)
Alnus glutinosa	I (1-5)
Prunus avium	I (3)
Betula pubescens	I (4-7)
Taxus baccata	I (1-5)
Tilia vulgaris	I (3-7)
Carpinus betulus	I (1-9)
Tilia cordata	I (2-5)
Populus tremula	l (1-4)

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BUC 2023 TEAM STORIES! With BUC Planning Team

We caught up with some of the teams that competed in Rounds 1 and 2 two and they share their stories here:

Aberystwyth Team, Defoliated and Afraid

By Nicola Ibbotson (Captain).

The four of us competed in this year's Botanical University Challenge as a group of first and second year plant biology students. I first learned about the competition while researching undergraduate degrees, where I discovered that Aberystwyth was amongst the first universities to participate in BUC 2016. Aberystwyth has not participated in recent years, so during my first semester, I decided to contact lecturers to find willing teammates. We got together to discuss what BUC was all about, where we read articles from *The Thymes*, watched YouTube footage of prior years, and most importantly, deliberated team name ideas. We were all feeling quite nervous before the day, unnecessarily worrying that we wouldn't be able to answer any of the questions. We were able to work as a team, and by combining our knowledge, we were able get further than we had imagined. Plant biology is a fascinatingly broad subject, and we all have our own favourites within it.

We hope that our participation this year will lead to many more from our institution in the future. I would encourage anyone to take part, as we had a great time on the day. We are looking forward to attending the festival in summer!



University of Bristol, Bristol Pistils

It was a boundless enthusiasm for all things botanical that initially brought our team, the *Bristol Pistils*, together to become the first to register for BUC 2023 way back in November 2022. Finding out that we were also the first ever team from Bristol to participate in the competition only heightened our drive for success. Meeting for the first time in the knockouts we realized that our individual expertise (ranging from Manisha's knowledge of tropical plants, George's bryophytes, Ellen's pollinators and UK wildflowers, Matt's plant physiology and pathology to Maximoss' tree identification skills) complemented each other very well and made us an effective team progressing to the quarter finals after a very dramatic tie breaker.

We were proud to have made it that far, ending up tied eighth out of 25 incredible teams. We brought even more drama and excitement into the quarter finals with yet another tie break, but alas this would be the last one – when we made an unlucky choice on orchids out of a fifty-fifty decision. We were delighted to participate and look forward to seeing everyone else at Nottingham in July, and can't wait to see what drama Bristol will bring in 2024!

Trinity College Dublin, Ptrinity Pteridophytes

By Eva Dreyer (Captain).

As I was preparing for my final year as a Botany undergraduate and getting ready to take up position as chairperson of T.C.D. Botanical Society, a professor of mine emailed me figuring I may be interested in assembling the first every Trinity team for Botanical University Challenge – and of course, they were correct! With that, I was off, and began the hunt for the perfect team. It was the beginning of a very exciting (and very botanical) journey that I feel so glad to have taken part in. We got a team together through a qualifying quiz in December using past BUC questions, ending up with myself as captain alongside PhD student Simon Benson and two other Botany undergraduates, Niall Lynch and Conor Orr. Once we settled on a fitting team name (*Ptrinity Pteridophytes* – alliteration with a twist…), we were all set.

The competition itself was good botanical fun. I thoroughly enjoyed allowing the nerd in me to jump out for the quiz days. We were especially thrilled by our dramatic showdown with the Bristol Pistils, with not one but two nail-biting tiebreakers. This botanical fight to the death made the experience even more memorable, and as the *Ptrinity Pteridophytes*, we were over the moon to make it through to the quarter finals on a fern-themed question about Irene Manton. In the end, we were proud to finish in 5th place of 25 teams – especially as first timers! We all can't wait to meet everyone in Nottingham at the Student Botany Festival this summer and would definitely encourage Trinity to compete again given the opportunity – I hope the BUC group will continue this wonderful legacy!



University of Southampton, The Dandelion the Witch and the Wardrobe

Sent by Dominic Leach, written by the team. As a university we have attended BUC since the very first competition in 2016 and we have always enjoyed it. The opportunity to learn and compete alongside other plant science enthusiasts provided us all with great value. This year was challenging for us, but from our point of view it means we learnt more than other teams. The questions covered interesting areas that we had not yet explored and prompted further reading on our behalf. The University of Southampton has a strong plant science department and encourages plant science in its undergraduates making us eager each year to take part in the competition.

For preparation we divided and conquered; each team member picked a topic allowing us to have both breadth and depth of knowledge as a team. We were very nervous beforehand, but the friendly nature of the competition made it comfortable and fun throughout. Although we didn't break the top 10, we enjoyed ourselves and learnt a lot. We will definitely encourage students to compete again next year for a fun educational time and hopefully next time win.





GET CREATIVE WITH PLANTS!

With BUC Planning Team





Are you a student with flair for photography? A penchant for painting? A mastery of mixed media? Then we invite you to enter our competition!

Enter your botanical artwork in three categories (Fine Art, Multimedia, Photography) and you could win some fantastic prizes!

For more information and T&Cs, scan the QR code or visit Botanical University Challenge website



Deadline 30th April 2023

The Get Creative competition launched in October 2022 and we are now approaching the 30 April 2023 deadline but there is still time to unleash your artistic side with a botanical photograph, artwork or multimedia! To enter, you must be a student over 18. Full details and entry form here: https://botanicaluniversitychallenge.co.uk/get-creative/

Summary of the three categories:

Photography – Inspired by "Pigments." It must feature a plant or plants, may be digitally enhanced but must retain elements of your raw photography.

Fine Artwork – Inspired by "Biodiversity." The artwork can use any medium, but must be two-dimensional, and include botanical references. You must submit it as a photograph, that should not be digitally altered in any way.

Multimedia – We will accept all creative entries from all types of artistic work, inspired by "Pioneering Botanists." Entries for this category should be submitted as a photo, video or audio file showing for example a 360 view of your sculpture, a recording of your dance, or anything recordable that fulfils the brief.

To enter, email your entry plus entry form to botanicaluniversitychallenge@gmail.com

with "Get Creative" as the subject. Entries will be displayed at the Student Botany Festival in July and may appear in BUC promotional content including *The Thymes* newsletter. There will be fabulous prizes for those entries that are judged the most plant-astic!



With Rachel Webster, Curator of Botany, Manchester Museum

The countdown is on for the start of the City Nature Challenge 2023 and you can help put nature on the map!

This year, 22 UK cities and regions are taking part in the City Nature Challenge: the global wildlife-spotting event running from Friday 28th April to Monday 1st May. Using the free wildlife app iNaturalist, the Challenge aims to get people out exploring their local environment to discover the wildlife nearby, or to get online to help others confirm the identity of finds.

Started in 2016 as a competition between Los Angeles and San Francisco, this annual four-day bioblitz is now a global phenomenon. In 2022, 445 cities took part, with 67,220 people recording over 1.6 million wildlife observations. Could your city could take part in 2024? You don't have to be an expert to take part, simply download the iNaturalist app, take photographs of nature in your local area and upload. Or if you prefer, upload your photos later via the iNaturalist website.

https://www.citynaturechallenge.org/



DOWNLOAD INATURALIST

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SEE IT

Find any wild plant, animal, or fungi



SNAP IT

Take a photo





SHARE IT

Share your photo on the iNaturalist app

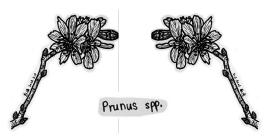






City Nature Challenge

iNaturalist



BUC ALUMNI INTERVIEW: CALUM McLENNAN, ADVENTURE BOTANIST!

As told to Dr. M

Dr M: "Hi Calum, please introduce yourself."

I'm Calum McLennan and I study ecology and conservation at Lancaster, but I'm very much into any natural sciences outside of University as well.

"Tell us how you got into plants?"

It was my interest in the small specialized things like trying to find the less common reptiles in the UK. Then I did a lot of hiking with my grandma and I found the mountains have a lot of very special species hidden in crevices or flushes. And they feel more embedded in the ecosystem than the animals sometimes, even though I'm very happy with animals too. So, that and, they don't move from me for photography reasons!

"So, what is your favourite botanical activity?"

I like the way BSBI put it: last year they described one of my posts as "adventure botany" and sometimes it's going to find the rare species, but also going to unique environments whether it's a montane crag, or down in the temperate rainforests, or a tiny calcareous flush or one specific waterfall that provides the conditions for all the different bryophytes around it.

"You were in the Lancaster team of BUC2023. How was it for you?"

It's always great because it's a rare occasion to hang out with other botany people. We had me designated to answer Leif's questions, UK taxonomy stuff. Then we had the biochem people and someone interested in botany relating to food and poisons. But when it comes to other sides of it, we're not so well versed, which just shows how broad a subject botany really is, and how many different things there are to learn. I remember there was a question about a piece of art with botany, and none of us knew it, but it's so interesting that is a thing you can ask questions on. And in between rounds, I love the chat the presenters have, and the questions provoke them to share their stories as well.

"Calum, you have this idea of a student botany chat platform, tell us a bit about that."

So, I've been trying to figure out how to find other people to share botany with. I've always been really bad at that, I've just been doing botany on my own and having all the other people in the hiking club look at me thinking, what is that guy looking at?! We botanists can be few and far between; even within one university it's hard to find who else is interested, there's no real single platform to go to. Obviously, we have Facebook, Instagram and Twitter, but it's harder to form a single community. So, I suggested "Discord" to you, It's obviously slightly more modern than some platforms and so not as well used, but once you start, everything's there...



So, we've made one so far where you can chat about biology on one channel, show your photos on another and talk about the competition in another. We've opened it to a few people and it's been good fun and also a place where you can share your stories with other people interested in botany rather than talking to people who don't care! So, I think there's enough people who do care so that we can make a little botany platform online.

"If Botanical University Challenge was a plant what would it be?"

Hmmm, OK, I've obviously been trying to promote this platform and thinking of connectedness. So, you know in the Redwood Forest there are some plants that have no chlorophyll at all because of some mutation and are completely white but can actually survive and grow for a bit because they're all connected and they pass nutrients and they have the fungi to help them as well. So, I'd see BUC as one of those trees, connecting the roots of different plants. I see BUC as an opportunity to connect with other botanists, it's not an opportunity to show off botany knowledge, that's a toxic way to think about it, obviously, it's a competition, that's just fun, but it's also a way to have new botany pals.

Dr M: That's a fantastic way to end. Calum, it's been delightful talking to you, thank you so much!

The full interview can be seen on our YouTube Channel and includes more of Calum's images here: https://www.youtube.com/watch?v=kgwsZ4oOhXE





PLANT SWAP

With Sven Batke



The Rise of The Plant Swap

Plant swaps have become increasingly popular in recent years for good reasons: they offer a unique opportunity for individuals to connect with others who share their love for plants and gardening. This is particularly true for students, who can benefit greatly from participating in a plant swap.

Why do you want to swap?

One of the big benefits of a plant swap is the opportunity to acquire new plants without spending money, particularly important to those operating on tight budgets, it also gives you an opportunity to exchange plants, you or others no longer want or need for new varieties and is an environmentally friendly way to acquire new plants.

Plant swapping at the Student Botany Festival in Nottingham July 2023

Following the first two rounds of BUC 2023, we are looking forward to meeting our BUC alumni at the University of Nottingham this summer. The "BUC plant swap" will be part of the two day Student Botany Festival. All attendees are encouraged to bring plants to swap or donate and take another back home.

Plant swaps provide an opportunity to learn from others and converse about plants and share knowledge about care and maintenance of different plants and tips and tricks for successful propagation. This is especially beneficial if you are just starting out and looking to learn as much as possible.

We hope that the BUC plant swap will foster a sense of community and by participating in our plant swap, you can meet others who share interests, and establish relationships with fellow plant enthusiasts. This is especially valuable for anyone feeling isolated or disconnected and the simple act of caring for plants has been shown to have many mental health benefits, including reducing stress and anxiety levels.

Of course, plant swaps are also a super fun and engaging activity, that offers a chance to break away from the stress of coursework, exams and work and participate in a relaxing and rewarding hobby.

So green your living and work spaces and swap plants with us at the Student Botany Festival in Nottingham this summer!

RED LIST BOTANISTS

With Alex Mills

Big botanical news for March 2023 included the publication of the *BSBI Plant Atlas 2020: Mapping Changes in the Distribution of the British and Irish Flora.* Based on 20 years work by thousands of botanists and more than 30 million records, this is the most in-depth survey of the British and Irish flora ever undertaken. It will serve as an essential resource for the study and conservation of our wild plants and their important habitats for decades to come. You can access *Plant Atlas 2020* here: https://plantatlas2020.org/

This momentous occasion for British and Irish Botany set our BUC alumnus Alex Mills thinking about the context of the extinction of botanical education but also the strong botanical community that exists as made manifest in *Plant Atlas 2020*, and the distinctive humour not infrequent amongst its members. A light-hearted poster highlighting the Red List status of field botanists seemed an appropriate way to highlight the risk of losing botanical skills whilst celebrating the amazing botanists we have out there including all our BUC alumni! So, (drum roll) *The Thymes* is delighted to unveil Alex's poster here and remember, you saw it here first!



Field Botanist Botanist campestre Theoph.

Critically Endangered A2a

Identification

- Highly variable morphologically, Botanist campestre displays extreme phenotypic plasticity.
- Height, gender, age, ethnitcity, etc. range widely, especially in a healthy population of Field Botanists.
- Nearly all specimens encountered will have hearts.
- Good indicative characters are a stooped gait and a handlens/loupe (usually hanging from string around the neck). A form is often seen kneeling on the ground with this handlens/loupe held close to the vegetation.

Similar species

- Could be confused with the Field Lichenologist Lichenologist campestre or even, at a distance, with the Field Entomologist Entomologist campeste. Told from the former by the lack of KOH and iodine and a slightly quicker pace through the landscape. Told from the latter by the absence of a net.
- Despite being closely related to the Lab Botanist Botanist laboratoriensis, the
 differences in habitat (indoors vs outdoors) are usually sufficient to allow easy
 discrimination. There is, however, a great deal of overlap between the two species
 and some taxonomists question the validity of the split.

Habitat

- The Field Botanist is highly mobile and can be found in a wide range of habitats, from the intertidal zone to mountain heath and from dry, lowland grassland to upland bogs. In short, anywhere there are plants.
- N.b. may also be found in unexpected locations, e.g. not unusual to find groups of Field Botanists failing to leave car parks.



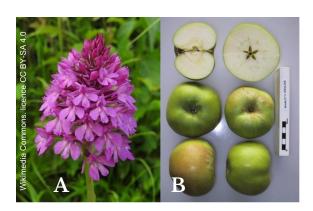




BUC TASTER QUESTIONS

- Banksia is a genus of about 170 species in the plant family Proteaceae. Where in the world are they native?
- 2. Taking the first letter of the Genus and Specific Epithet for European Ash gives the chemical symbol for which element?
- Identify the orchid found in Britain and Ireland (picture A)
- 4. Identify the apple variety (picture B)

Answers at the bottom on the page!





OUR BUC 2023 SPONSORS

We are grateful for support from the following organisations:

The New Phytologist Foundation is an independent not-for-profit organisation dedicated to promoting plant science. The Gatsby Charitable Foundation aims to advance knowledge in fundamental plant biology and nurture talent among young scientists. The British Ecological Society is the largest society for ecologists in Europe and has a vision for nature and people to thrive in a world inspired by ecology. The Field Studies Council helps people learn about the environment so they feel connected to it and can make informed choices about how best to protect it. The Botanical Society of Britain and Ireland promotes the study, understanding and enjoyment of British and Irish botany.













ABOUT The Thymes TEAM



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Special thanks to BUC Teams who wrote stories, Dr Rachel Webster, Professor Beverley Glover, Calum McLennan, Dr Sven Batke, Alex Mills, Helen Ougham.







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 at: botanicaluniversitychallenge@gmail.com

Thyme for a joke:

How can you tell that a BUC team member is nervous?

Sweaty Palms (Boom Boom!)

Got a botanical joke or pun? Send it to us!

Enjoying *The Thymes*?

The *Thymes* Team are always pleased to get feedback from our readers, please email us with suggestions and feedback!

Next Issue: August 2023



'Beneath the cherry blossom by Yi Zhou'

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

Page 3 Answer: Lear's crown was made of weeds: "rank fumiter and furrow-weeds, with burdocks, hemlock, nettles, cuckoo-flowers, Darnel" symbolising his loss of status and descent into madness.

Page 8 (above) Answers:

- 1. Australia
- 2. Fraxinus excelsior = Fe = Iron
- 3. Pyramidal orchid (Anacamptis pyramidalis)
- 4. Bramley (or Bramley's Seedling)