



**Alumna  
Subject  
Graduated  
Place of Work  
Position**

Carol Wagstaff  
Biology  
1995  
University of Reading  
Senior Lecturer in Crop Quality for Health



Carol graduated with a BSc in Biology in 1995 and went on to study for a DPhil specialising in plant biology at the University of York. Following periods of post-doctoral research she was appointed to a lectureship at the University of Reading in 2007. She has just been promoted to Senior Lecturer in Crop Quality for Health and her research group work on projects linked to improving the yield, quality and nutritional benefits of horticultural crops.

**Did you apply to other universities, and what were your reasons for choosing Biology at RHBNC?**

I applied to Bath, Bristol, Exeter, Kings and RHBNC – the campus environment, the friendliness of staff on the open day and seeing Founders were all really attractive points for me.

It was important to have lots of modules to choose from in the Biology course and at that stage there was a huge range of options available, we even linked up with the other London Colleges for evening lectures! I always enjoyed Biology at school and when I arrived I expected to specialise in Zoology as it fitted in with my existing interests and the animal physiology I already knew through owning my own horses and dogs. However, I then met Prof. Bill Chaloner who was completely inspirational and converted me into a Botanist.

**Were you involved in any clubs or societies? Do you have any anecdotes from your time here?**

I was treasurer of the Biology Society (really...I am the least well qualified person to be in charge of money). The students in the department were a lively bunch during my time here as an undergrad and supported two societies; BiolSoc concentrated on hosting guest lectures and social events whilst the Conservation Society were better at going out and getting wet and muddy whilst improving the

local environment for wildlife. The two clubs were not mutually exclusive and lots of people were involved in both, plus we had some joint events. It really just shows how enthusiastic students were about their degree subject – it wasn't just about coursework marks and passing exams.

**What are your fondest memories of being in your department?**

Being here was the first time I had experienced an educational environment where my peers were supportive and it was seen as a good thing to be reasonably bright. The department provided space in the old herbarium for us to study, and it was a really productive and supportive environment to be given the freedom to explore something that really interested us. In the first couple of years all my Botany teaching was down at Huntersdale which felt like our own club where staff and students all worked and supported each other.

**Do you have an outstanding memory of your time at College?**

Prof. Bill Chaloner retired at the end of my second year (although he continued to teach and still does) and at the time he was on the board of trustees at RBG Kew – enabling us to make frequent visits to Kew as part of the course. The Pagoda at Kew is a wonderfully ornate wooden structure, but it had been closed to the public for many years as

it was too much of a fire hazard to have people trying to go up and down its narrow spiral stairs at once. We contacted the Director of Kew at the time (Ghillian Prance) who arranged for us to meet Bill at Kew gates after the gardens had closed (after some negotiation via Bill's wife Judy to get him there under false pretences) and then we had the place to ourselves. We took Bill to the top of the Pagoda for strawberries and champagne and discovered that the Pagoda moves around quite a lot in strong winds!

**Where was your passion for Biology found?**

I wouldn't have discovered my passion for plant science if it hadn't been for RHBNC.

**What was your favourite part of the course?**

I loved my final year project (studying vase life of cut iris flowers). It was great to be part of a research lab, I met other people – research and technical staff – that you don't come into contact with as an undergraduate before that time, and it was the start of what remains my research interests; improving the shelf life, nutrition and flavour of horticultural crops. I discovered that when you walk into the building carrying 200 irises in flower everybody you meet will smile. Walking into the building with a crate full of lettuce plants (as my group tends to do), doesn't have quite the same effect!

Great minds  
*go on to*  
great places



Royal Holloway  
University of London



# people with passion

“I wouldn't have discovered my passion for plant science if it hadn't been for RHBNC.”



### What has been your career path since graduating?

I studied my DPhil (on the way that plants respond to light and gravity) at the University of York and then spent a brief six months working for ADAS where I analysed their field trials. The quality of the science and the degree of independence wasn't quite what I wanted so I came back into academia and to my original love of cut flowers, and spent five years as a postdoc working on MAFF/DEFRA funded projects. I then did a postdoc on lettuce genetics, which was the first time I had worked with an edible crop, and I got my lectureship at the University of Reading in January 2007. From slow beginnings, my research group has expanded enormously and will number 15 by the beginning of October; I was recently promoted to Senior Lecturer and am one of our Theme Leaders in the Centre for Food Security. I will also soon be Strategic Advisor to the Produce Quality Group at East Malling Research.

### What is the best project that you have been involved in recently?

There are so many fascinating things... One of my students is currently based at the Genome Center in UC Davis and he is gradually working out which bits of the lettuce genome regulate characteristics linked to flavour and nutrition.

Some of my students are working on Brassica species and finding out how these plants allocate resources such as carbohydrate, lipid and protein to their seeds. Understanding how plants do this, and therefore how we can manipulate the process, is important for improving yield and seed composition at a time when food security issues mean that it is important to get maximum yield and quality for land that is used to cultivate crops. We are also taking a closer look at horticultural supply chains and how to minimise waste. Now that I work in a department of Food and Nutritional Science, rather than in the pure biological sciences, it is much easier to work at the interface of plant and biomedical science and one exciting project is just starting to shed light on how plant foods interact with the human cells they come into contact with post-digestion.

### Do you have any tips for people considering a career in your field of work?

Developing a network of useful contacts and collaborators is essential. I think it is really important to work with relevant industry – research funding requires your work to have short or long term impact and for me it matters that the stuff that excites me in the lab will one day have some benefit to wider society. Communication of your science is essential, and not just to other scientists.

The days where we could shut ourselves away from the rest of the world are gone; scientists should be proud of what they do and should be ready to enthuse others, defend their ideas and methods, and justify the resources invested in them in public. Finally, there is a need for tenacity and to work extraordinarily hard to get a permanent lectureship. The pyramid of job opportunities in academia narrows very quickly – it is easy to find a PhD, there are usually postdoc opportunities but it can be hard to develop your own ideas when you are employed on someone else's project unless you happen to work for people who are interested in your career development (I was extremely lucky in this respect), and lectureships don't come around that often. When they do, it is important to show what you will do in the new place and what you will bring that is different.

### What does it mean to you to be an alumna of Royal Holloway?

I have extremely fond memories of my time at Royal Holloway and the campus is always a pleasant place to be and the students are still friendly and welcoming – I even had the pleasure of doing some teaching in my old department at one point which really did feel like life had come full circle! I think I am connected to the place by a piece of elastic as I seem to keep coming back!

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