

## ANALYSIS

# Death knell sounds for botany degrees

*What happens now that the last university offering botany degrees has closed its doors to new applicants?*

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**D**espite a critical shortage of qualified botanists for research and conservation projects worldwide, botany will disappear at degree level in the UK once the undergraduates at the University of Bristol finish in 2013.

The study of plants is now known as 'plant sciences', avoiding historical and assumed connotations based on taxonomy and classification. But from autumn 2012 only four universities will provide plant sciences as a single-degree subject. Most offer it as a specialism within wider science degrees such as applied biosciences and natural sciences.

Research has shown a long decline in the popularity of botany both in the UK and internationally. In 2002 there were 170 UK applicants to study botany, falling to 119 in 2008. In sharp contrast, the number applying for zoology increased from 4,758 to 5,582 over the same time.

The word 'botany' seems to have negative associations for today's

students, suggesting an old-fashioned, dry subject; some observers believe this is rooted in the way plant science is taught in schools.

'Thinking back to my school days, plant science was effectively rudimentary photosynthesis and maybe a starch test, and that was about it,' said Jim Fouracre, who studied biology at The Queen's College, Oxford and is now doing a plant science DPhil.

The lack of UK graduates with a thorough grounding in plant

## WHICH UNIVERSITY OFFERS WHAT IN 2012?

- ❖ **Applied Biosciences (with Plant Sciences specialism):** Plymouth
- ❖ **Biological Sciences (with Plant Sciences specialism):** Birmingham
- ❖ **Molecular & Cellular Biology (with Plant Sciences Specialism):** Glasgow
- ❖ **Natural Sciences (with Plant Sciences specialism):** Cambridge
- ❖ **Plant Biology:** Aberystwyth
- ❖ **Plant Science:** East Anglia, Manchester, Nottingham, Sheffield
- ❖ **Plant & Soil Science:** Aberdeen

**Botanically trained staff, seen here working at RHS Garden Wisley (below), are essential to the Society's work.**

knowledge is so severe that for five years the Royal Botanic Gardens, Kew has recruited botanists from overseas.

'The global shortage of people with a really good general knowledge of the fundamental way plants work is a worldwide trend, but one the UK is leading,' said Tim Entwisle, Kew's Director of Conservation. 'The numbers of people [from British universities] applying to work at Kew with a good solid botany background have dropped to the point where we are no longer employing them.'

## Positive outcome

This growing gap in skills has been recognised by the RHS and although it does not offer degree level courses, the Society is able to support study in other ways. 'We make funds available for targeted projects in plant sciences at higher degree level which most benefit horticulture and gardeners,' said John David, RHS Chief Scientist.

Rekindling undergraduate interest in plant science is another way of keeping the subject alive. Celia Knight, a lecturer at the University of Leeds, who co-ordinates the Gatsby Plants initiative, argues that far from 'dumbing down' the study of plants, the integration of botany with other subjects is a positive development. She believes that plant science, taught alongside biology, zoology and other disciplines, helps reinforce the idea that fauna and flora are inextricably linked. It also means that even students who do not go on to work with plants have a basic level of 'botanical literacy'.

'Plant science is being taught by stealth,' she said. 'The big global challenges we have now mean that plant science has never been in such a good position: climate change, food security... they all need plant scientists. We need to link these subjects to plant science: these are things that appeal to youngsters.'

Tim Entwisle is also optimistic that fields such as molecular biology and climate change will bring back demand for plant knowledge. But he warns that if the gap is too wide the slide could be too difficult to reverse. ●

