

A brief history of *New Phytologist*

'Nature does not go about painfully to prove that the existence of a new organism is absolutely indispensable – she throws it upon the world and leaves it to take its chance. If there is room for the new-comer, if it is well adapted to fill its place in the scheme of things, it survives. If not, it inevitably goes under and disappears ... Meanwhile the experiment seems worth making.'

Thus wrote Arthur Tansley, 30 at the time, on 23 January 1902 in launching what was then *The New Phytologist* (Tansley, 1902). Natural selection has been kind to this 'new organism', which he nourished almost single handed for a further 30 years – it has survived for 100 years with significant evolution to its current strong presence.

1902–32 – the *Phytologist* relaunched

The proliferation of scientific journals that became such a feature of publications in the latter part of the past century began at a slower pace 100 yr earlier. One of the major differences between developments during the two periods was in the nature of the initiators, who, 100 years ago, were predominantly individuals, learned societies or other charities, compared more recently with commercial publishers. Another change was in the style of the subject matter – broad spectrum then, specialist later. The founding of *The New Phytologist* in 1902 followed relatively closely on the launch of the *Annals of Botany* in 1878. There was controversy both over the need for that new journal then and over its name (Wilson, 1978). Tansley, although he called his new journal the *British Botanical Journal* in his preliminary circular, actually named it after the more magazine-style *Phytologist* that had had a short life between 1842 and 1863 (Fig. 1; Box 1).

The originally intended title appeared as a rider to that which has, perhaps surprisingly, persisted. Surprising because the Greek-derived 'phytology' for plant science never caught

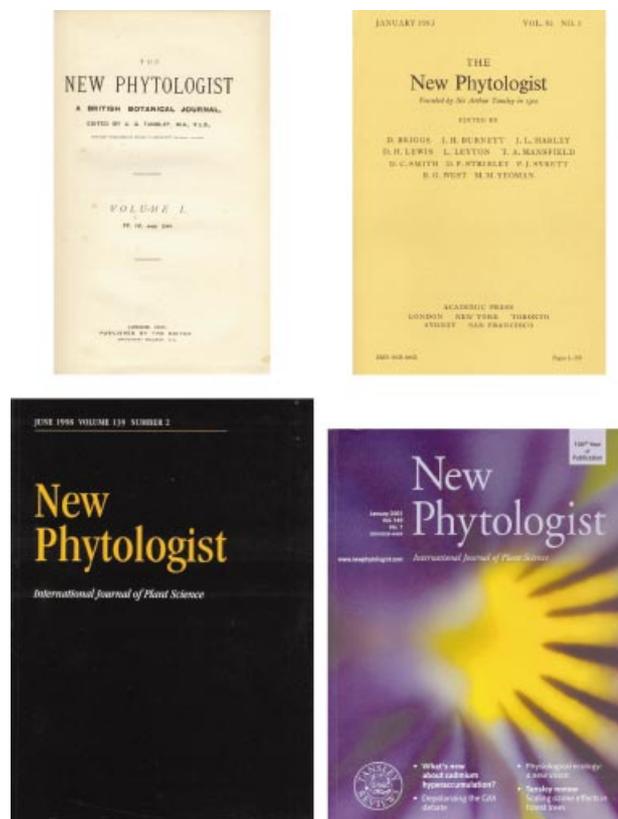


Fig. 1 The changing face of *New Phytologist* – from the title page of the first issue in 1902 to the start of the 100th year of publication in 2001.

on as did the equivalent 'zoology' for animal science. Indeed, it largely only persists in the names for a range of other plant science journals, such as *Phytochemistry* and *Phytopathology*, and in some commercial organizations that involve plants, such as Phytera Inc. and Phyto-longevity Inc. Tansley's original concept was indeed of a magazine-style publication as 'a medium of easy communication and discussion between British botanists on all subjects connected with their branch of science, methods of teaching and research as well as purely scientific questions.' He also wished the journal to appeal to 'persons ... keenly interested in the progress of botany, but cut off from contact with the centres of botanical activity. Many of them are teachers ... and others are amateurs ...' (see Box 2). The short, early issues, with a fraction of the current content, cost 1 s 6d – just a few pennies or cents – and was postfree.

The early issues of the journal contained an eclectic mix of subjects, from palaeobotany to genetics, with papers on all major plant groups. Ecology in particular was fostered, as would be expected from Tansley (Godwin, 1977). Experimental physiology had a slow start and it wasn't until the end of the journal's first decade that a paper appeared with quantitative data (Halket, 1911), reporting on physiological studies on salt marsh ecology. Alongside the purely scientific

Box 1 160 years of phytology

1842–1863	Period of existence of the magazine-style <i>Phytologist</i>
1902–32 – the <i>Phytologist</i> relaunched	
1902	Launch of <i>The New Phytologist</i> , based in Cambridge
1911	Appearance of first paper containing quantitative data
1912	First involvement of a publisher, William Wesley & Son, later Wheldon & Wesley
1917	Publication of 'The Tansley Manifesto'
1927	Tansley moves to Oxford as Sherardian Professor
1930	Move to Cambridge University Press
1932–62 – establishment of the <i>New Phytologist</i> Trust	
1932	Clapham, Godwin and James take over as editors
1945	Clapham moves to Sheffield
1956	Establishment of the <i>New Phytologist</i> Trust. Move to Blackwell Publishers
1962–83 – setting the long-term academic framework	
1961	Harley, Burnett and Pigott take over as editors. Journal managed from Oxford
1960s	Managerial structure introduced, involving a Chairman, an Executive Editor, a Book Review Editor and a Treasurer
1979	Move to Academic Press
1982	First editorial meeting outside Oxford or Cambridge
1983–95 – innovation and internationalization	
1983	Lewis takes over as Executive Editor. Editorial office established in Sheffield
1985	Establishment of the Tansley Fund. First Tansley review published
1988	Return to Cambridge University Press
1991	Appointment of first non-UK editor
1992	First editorial meeting outside the UK
1995–2002 – the challenge of the internet	
1995	Ayres takes over as Executive Editor. Editorial office moves to Lancaster. First <i>New Phytologist</i> symposium
1997	Online edition of the journal first available
1998	First <i>New Phytologist</i> symposium outside the UK
1996	Board of Advisors to Editors established
1999	Forum established
2001	Return to Blackwell Science

content, as promised by Tansley, discussion flourished. Perhaps the most influential in this was a contribution about curricula in universities, prompted by the article 'The reconstruction of elementary botany teaching' – with Tansley as the last of its five signatories (Blackman *et al.*, 1917). This controversial paper, which became known as 'The Tansley Manifesto', provoked heated private and public correspondence extending over 2 yr, essentially about the relative merits of morphological and physiological approaches to teaching (Boney, 1991). Godwin (1985) gives more details about the journal's early development – including its skit, *The Tea Phytologist*, put together by students at Cambridge (Fig. 2).

1932–62 – establishment of the *New Phytologist* Trust

After editing the journal alone for 30 yr, Tansley handed over to three colleagues, Roy Clapham, Harry Godwin and Will James, who all were already, or became, distinguished British plant scientists in Oxford/Sheffield, Cambridge and Oxford/London, respectively (Clapham & Harley, 1979;

West, 1988; Willis, 1993). Tansley did so with '£100, the goodwill and the back numbers'. The new editors' particular but overlapping interests – ecology, history of vegetation and physiology/biochemistry – became core areas subsequently fostered by the journal. Indeed, it has been the policy ever since that editors should actively encourage submissions in their own and related fields.

Undoubtedly the most important development during the period 1932–62 – and certainly the most significant development since the launch of the journal – was the establishment of the *New Phytologist* Trust in 1956 with charitable status and the three editors as trustees. The most important features of the trust are that it should own the journal and that any financial surplus generated from sales and investments should be spent only to advance plant science. This ethos impacts on all the activities of the present organization and no permanent editor has ever been paid. In this special year, the trust will be funding three major symposia, covering soil microbes and plant population dynamics (Helsinki, Finland 10–14 June – see <http://www.biocentre.helsinki.fi/nps2002/>), heavy metals and plants

Box 2 Who was Arthur Tansley?

Although Tansley is best remembered – revered even – for his contributions to ecology, he was also much concerned with teaching in general and, especially after retirement in 1937, with nature conservation. However, he had wide botanical interests outside ecology and his first paper in his own journal, with FF Blackman, concerned a revision of the classification of green algae. His other contribution to the first volume was – pour encourager les autres? – a letter on structure to the Editor. He retained a strong interest in both plant anatomy and palaeobotany, and his favourite plant communities were those of the coast and of the chalk. His admiration for the yews of Kingley Vale is commemorated at The Royal Botanic Gardens, Kew, UK by a grove of yews, planted with a donation from the *New Phytologist* Trust, and complete with a plaque which pays tribute to Tansley – ‘Botanist, father of ecology and pioneer of nature conservation, his campaigning led to the establishment of the Nature Conservancy in 1949 of which he was the first chairman’.

Overall, Tansley had a remarkable and successful life but with periods of depression and uncertainty about the direction he should follow. At one stage, he even abandoned botany and went not only to study with Freud but also to publish independently of him on psychology and psychoanalysis. He did, however, return to plant science, and remained much involved with the British Ecological Society and its first publication, *Journal of Ecology*. For accounts of Tansley’s career, see Godwin (1957, 1958, 1977).

Tansley’s name remains associated with the journal in the form of the Tansley reviews. The Tansley review logo takes as its centre piece a detail, Tansley’s desk, from a bookplate that Tansley designed himself in 1896, which features the authors and institutions he valued (both the bookplate and logo are shown here). According to Godwin (1977) this provides a ‘strongly personal, almost intimate view of the young scientist ... I recall how Tansley in later years explained the bookplate to me with an amused back-glance at himself as a young man, but still with approval.’



(Philadelphia, USA, 8–10 September) and genomics of plant–microbe interactions (Nancy, France, 23–25 October).

1962–83 – setting the long-term academic framework

Whereas the handing over of care of the journal from Tansley to his three successors and the formation of the trust appears to have been well structured, the next change, another 30 yr later, was more haphazard. In 1961, Jack Harley, then in Oxford, received a phone call from Roy Clapham: ‘When are you coming to Sheffield to take over *The New Phytologist*?’ This was the first he had heard of this proposition, since neither of the other editors had yet written to him as Roy Clapham had expected. Neither had letters been sent to Harley’s designated coeditors, John

Burnett and Donald Pigott (Smith & Lewis, 1993). Nevertheless, they did take over the journal, and to lasting effect.

Harley and Burnett brought with them mycological expertise to the editorial board, and such expertise was continued through David Smith and David Lewis (both research students of Harley), and later Peter Ayres and, most recently, Nick Talbot. In the 1960s, a managerial structure evolved, somewhat informally involving a Chairman, an Executive Editor, a Book Review Editor and a Treasurer (although these were not formally established until 1983).

Although, several other editors have served the journal for the ‘statutory’ 30 yr, never again was there a clean-break handover; the number of editors increasing incrementally, beginning to resemble, in structure, the present multieditor board. During this period, Pigott retired when he took up

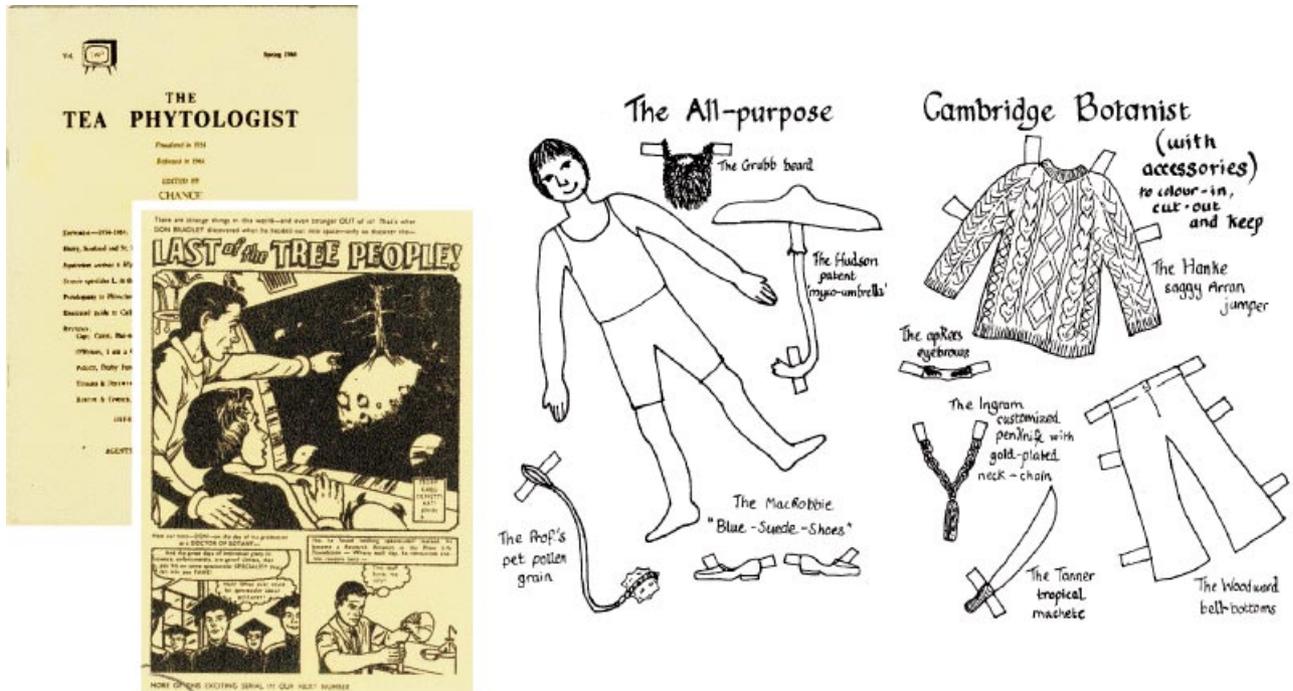


Fig. 2 *The Tea Phytologist*, put together by students at Cambridge.

the foundation chair of biology at the new University of Lancaster and Richard West (Cambridge) joined, sustaining the journal's commitment to the study of the history of vegetation. Phil Syrett and David Lewis joined in 1970. The former's particular speciality, the physiology and biochemistry of algae, is another which has persisted on the journal, most recently with John Gallon (assuming blue-green algae – cyanobacteria – are included). The other additions during these years included David Briggs, Len Leyton, Terry Mansfield and Mike Yeoman, all still UK-based, but not restricted to Oxford and Cambridge.

The massive influence of Harley on the journal's content became particularly evident in the period 1962–83. Both Smith and Lewis retained their interests, which had been fostered by Harley in the mutualistic symbioses of lichens and mycorrhizas and, in particular, their carbohydrate metabolism. With this combination of editors, the journal, which had had a note on mycorrhizas in its first year of publication, became a focal point for papers in these areas and also of nitrogen-fixing associations, mostly dealt with by Syrett. Indeed, so many mycorrhizal papers were submitted that David Stribley, another scientist with mycorrhizal interests, joined the board. This interest continues today through Ian Alexander, Alastair Fitter, Francis Martin and Maria Harrison.

The influence of Leyton and Mansfield was to encourage the submission of papers in whole plant physiology, and particularly water relations. Mansfield also attracted papers related to stomatal physiology and pollution, areas also

covered by Jenny Wolfenden. That of Briggs was to extend the field of experimental taxonomy with an ecological flavour, an area earlier fostered by Roy Clapham and, indeed, by Tansley himself (who had even written about the taxonomy of *Potentilla* as a schoolboy – see Godwin (1977)). Loren Rieseberg continues this interest today. Mike Yeoman brought secondary plant metabolism and tissue culture as specific additional facets to the editorial spectrum.

The journal expanded rapidly during the period 1962–83 and, under Smith's guidance, moved to monthly publication and a sound financial status. The latter followed a more commercial relationship with publishers involving competitive tendering. Tansley had initially published the journal himself but, in 1912, put it in the hands of what became Wheldon & Wesley. Cambridge University Press (CUP) took up the reins in 1930 until that publisher was succeeded by Blackwell Publishers in 1956. Following an acrimonious dispute, this company was replaced by Academic Press in 1979 before the journal once again returned to CUP in 1988. The most recent change was a burying of the acrimonious hatchet and a return to Blackwell Science in 2001.

1983–95 – innovation and internationalization

In 1983, the three longest-serving editors, Harley, Burnett and Smith, together with Leyton, retired and the journal's main editorial office moved to Sheffield, with David Lewis as Executive Editor. Its archives did so too, via Silverstone, in



Fig. 3 1983 – the journal's main editorial office moved to Sheffield.

the back of a Triumph TR7 sports car (Fig. 3) driven by David's secretary, Jane Bird. 1982 saw the first editorial meeting to be held outside Oxford or Cambridge, and the historical link with Oxford, dating back to Tansley, was severed.

With a much improved income from Academic Press and sound financial management of the trust by Smith, which was continued by Syrett, a far more overt support for botanical initiatives as required by the Trust Deed became possible. This was organized via the establishment of the Tansley Fund to coincide with the publication of volume 100, initially with four objectives which, over time, have been both expanded and condensed (Anon, 1985, 1987, 1994, 1996). This was another key moment in the journal's history.

A highly successful objective, actually conceived in 1983, proved to be the pioneering series of Tansley reviews, which now number well over 100 (see Box 2). The original idea was for reviews, written by specialists, but for an audience wider than that catered for by journals publishing only reviews. Several 'Tansley lectures' arranged at the establishments of editors, and occasionally elsewhere, were subsequently expanded into Tansley reviews. In these ways Tansley reviews and lectures could keep researchers abreast of developments outside their own interests and be useful for teaching purposes, an aim going back to the origins of the journal. In this anniversary year, the trust is making free Tansley review material available on its website – see <http://www.newphytologist.com/>.

A significant number of diverse workshops were also supported and brief accounts of these appeared in the journal. Similarly, many bursaries were awarded for young researchers to attend conferences. Indeed, in a sense this fund was a victim of its own success but, in funding attendance at meetings, it formed the precursor of the *New Phytologist* symposia (Anon, 1996). These symposia have proved to be an outstanding success, and Alastair Fitter did much to establish their high reputation with the first of these, in 1995. Eric Garnier organized the first of these outside the UK, in Montpellier in 1998. Other innovations at this time included funded lectures and prizes, initiatives that have again formed the starting points for today's activities.

Box 3 Honours

Many British honours have been bestowed on a significant number of *New Phytologist* editors. Nine (Tansley, Clapham, Godwin, James, Harley, Smith, West, Mansfield and Sanders) have so far been elected as Fellows of the Royal Society, the UK academy of science. Burnett, Smith, Yeoman, Dale and Alexander are Fellows of the Royal Society of Edinburgh. Also, for their services to the plant sciences (including conservation) or academia in general, four (Tansley, Godwin, Smith and Burnett) received knighthoods and both Clapham and Harley were made Commanders of the British Empire (CBE).

1991 also saw the appointment of the first non-UK editor, Francis Martin (Nancy, France), another move of great significance, signalling the beginning of the transition to the fully international journal of today. Internationalization did nothing to erode the strong community spirit within the journal. The first annual editorial meeting to be held outside the UK was in Nancy in 1992. The editors with partners flew via Luxair, now defunct, from Stansted to the Metz/Nancy airport in a 40-seater plane, taking up the bulk of the seating. As free brandy flowed freely, the intimate atmosphere was akin to a charabanc drive to Blackpool!

It was during this period that the number of editors climbed well into double figures and appointments were made for fixed terms, rather than 'for life', as had been normal since the time of Tansley. The expanded expertise strengthened the representation in existing areas, but also encompassed new ones. Global climate change began to feature in the journal after the appointment of Ian Woodward, a development that continues through Richard Norby and Peter Curtis. Howard Thomas and Dale Sanders brought expertise in revolutionary new areas, both molecular biology and ion relations of cells and tissues (Sanders was appointed as a Fellow of the Royal Society in 2001, the most recent editor to be honoured in this way – see Box 3). John Dale, John Farrar and Eric Garnier brought with them expertise in the physiology and biochemistry of leaves in general and photosynthesis and carbohydrate metabolism in particular. Jeff Duckett brought expertise in ultrastructure, but also wider interests. Indeed, the breadth of expertise now available almost makes the subject specialities of the past, discernible in the editorial board, defunct – even though the journal still has areas of distinction.

A further development concerned, effectively, the establishment of the first editorial office. Apart from the very earliest issues, the title page had noted that the journal was edited by A. G. Tansley, 'assisted by the Staff of the Cambridge Botany School'. Undoubtedly subsequent editors received similar help from their immediate colleagues but no formal, paid assistance was received by editors other than from their departmental secretaries until the mid-1980s.

Lewis was ably assisted firstly by Jane Bird and then by several short-term appointments of dedicated editorial assistants. These not only took over some aspects of production previously conducted by the publisher but initiated computer-based systems for tracking the handling of manuscripts by the large editorial board and the referees they recommended. The most innovative of these assistants, Alice Herold, was the *de facto* Managing Editor and even had a part-time assistant herself. By their efforts and those of the trustees and editors, the annual number of pages published well exceeded 2000.

1995–2002 – the challenge of the internet

The last few years of the journal's first century have also been ones of rapid and successful change. In 1995, Peter Ayres took over as Executive Editor from Lewis. The main editorial office moved to Lancaster, David Stribley was appointed as Managing Editor, and the number of staff was increased in the main editorial office (which, incidentally, shared some facilities with the *Journal of Experimental Botany*). Further appointments included Alistair Hetherington, as Tansley review Editor, and Jonathan Ingram, who took over as Managing Editor.

Part of the reform from 1995 was in the use of electronic peer review, coordinated from the editorial office. Essentially, the influence of the internet was having its first effects – the office continues to evolve with the current rapid progression in communication technology. Ayres assembled the large international group of Advisors, plant scientists who, as a group, underpin the peer-review process of the journal, while also – as suggested by the name – contributing to the life of the journal in many other ways. This group has included many who have quietly been staunch supporters of the *New Phytologist* approach. Additional editors were appointed further to establish the journal's international status, particularly in North America – Maria Harrison, Loren Rieseberg and Peter Curtis – a process aided especially by Richard Norby who manages the North American office at Oak Ridge, Tennessee (Ayres, 1999, 2001).

The journal itself also developed through, for example, special issues, arising from the symposia (Whipps, 1996). A 'Forum' has also been introduced, including commentaries and letters (Ingram, 1999). Tansley would have wholeheartedly approved of these latter-day innovations. In addition to these changes in content, the journal also changed its appearance, finally abandoning the yellow cover it had retained for nearly a century to the design we see today. But the most radical change has been the introduction of online publication, the internet having initiated profound change in publishing as in so many other areas of business. This was introduced by CUP and now, with Blackwell Publishing, the journal is available, complete, in parallel print and online formats (Ayres & Ingram, 2000).

The future

Tansley's 'experiment' has been a resounding success. The journal has thrived as a broad spectrum, highly respected outlet for research and discussion in the plant sciences. The rest of this issue is a sound testament to that. However, as far as publishing and dissemination of knowledge is concerned, the early 21st century is very different from Tansley's experience 100 yr ago. The internet and electronic publication have transformed publishing for ever and, especially in terms of financial viability, much uncertainty prevails for charities such as the *New Phytologist* Trust. At a time of rapid evolution, even more rapid adaptation in practices will be necessary. We are confident that the devotion and innovation of all those involved with the journal, now and in the future, will ensure its continued success in whatever form is appropriate for the immediate future, the next hundred years and beyond.

Acknowledgements

We are most grateful to the many trustees, editors and staff for their recollections. Special mention should also be made of those with publishing responsibilities in recent years, including Joan Fujimoto and Roger Farrand of Academic Press, Richard Ziemacki, Conrad Guettler, Trevor Burling and Peter Mott of CUP, and Sue Hewitt, Simon Rallison and Ruth Swanney of Blackwell Publishing, and to the most recent office staff, Mary Ayres, Elizabeth Eyes, Anna Fraser and Nichola Hetherington. A fuller account of the journal's history will be made available at <http://www.newphytologist.com/>.

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