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## Introduction

New Year 2003 saw changes behind the scenes with the implementation of web-based submission and review and we would like to thank all our authors, referees and Associate Editors for working with us through the transition. Submissions were over 10% higher than in 2002, enabling us, to an even greater extent than in the past, to accept only the best papers. Our aim is to publish excellent work in any aspect of plant ecology and we hope that readers will appreciate seeing new topics being covered, as well as those that have traditionally appeared in *Journal of Ecology*.

We also aim to select studies which are of broad interest: authors are now asked to indicate the relevance of their work to those outside the immediate field by including a generic point (or 'ecological synthesis') as the final point in their summary. We do not impose an upper limit on the length of papers, although they must never be longer than can be justified by their message, nor do we exclude short papers, particularly on topical issues. Publication times continue to fall, enabling us to make our content more timely: the average time from submission to despatch of printed copies is now under eight months, and electronic files may be available via Synergy ([www.blackwell-synergy.com](http://www.blackwell-synergy.com)) up to two weeks earlier.

Within an issue, we have started grouping together papers on particular topics; such groups reflect coincidental similarities among accepted papers, rather than arising from the acceleration or delay of papers, or the soliciting of contributions on selected topics. The featured topics are likely to reflect areas of current interest: the October 2003 issue, for instance, featured the mechanisms that maintain species richness in plant communities, a topic that is enjoying a surge of attention following publication of Hubbell's *Unified Neutral Theory of Biodiversity and Biogeography* (Hubbell 2001). Four empirical studies of New World temperate and tropical forests present a diversity of tests of the underlying assumption of the theory, i.e. that there is equivalence among competing species.

Each of the papers provides evidence to the contrary, showing, instead, that ecological differences between species may be widespread and important (see summary at our homepage: [www.britishecologicalsociety.org/articles/publications/journals/ecology](http://www.britishecologicalsociety.org/articles/publications/journals/ecology)).

We have also featured the unfolding subject of facilitation (December 2003), as well as the effects of land-use change and the importance of below-ground interactions (both August 2003). Overviews of the key aspects of the studies concerned and their wider relevance are available on the above home page. The current issue contains groups of papers on reproductive biology, on genecology and on the determinants of community structure: from now on, any such groupings of papers will be explicitly listed on the back cover.

As an indication of the progress being made in key areas, *Journal of Ecology* encourages the publication of Essay Reviews. We hope that a review of root competition, a topic we mention several times in this article, will appear later this year and that contributions on invasive species and on the consequences of habitat fragmentation will be published in late 2004 or early 2005. We would be pleased to receive suggestions of other subjects for which an Essay Review would be valuable. Intending authors should send an outline of their proposals to the Editorial Office and should note that papers received as a result of such offers will be subjected to our normal review processes.

## The Editorial Team

Having successfully moved the journal to web submission, Anthony Davy will be retiring as Executive Editor during 2004. The rest of the team will miss his input, but his replacement, who will be appointed to complement the expertise of the continuing editors, Michael Hutchings (who will become Executive Editor) and David Gibson, will play a key role in the further development of the Journal.

Four Associate Editors came to the end of their terms on the Editorial Board during 2003 and we thank Toshihiko Hara, Sandra Lavorel, Chris Peterson and Bernhard Schmid for all their work. Frank Gilliam and Richard Bardgett have already joined us and are handling papers on temperate forests and soil-related issues, respectively, and we look forward to welcoming Ray Callaway this month to reflect the increasing interest in invasive species (especially exotics) and in facilitation. We also expect to appoint a new Associate Editor with expertise in plant pathology in early 2004.

The Editorial Office remains at the BES headquarters in Putney. We know that some contacts (particularly referees) feel that a degree of personal contact has been lost with the move to web submission, but rest assured that the Managing Editor is still there behind

the system. The automation of processes such as review reminders, and the employment of a part-time administrator to handle other routine transactions has freed up time for Lindsay Haddon to work on improving other aspects of our service as well as on wider policy issues, while still maintaining control of manuscripts passing through the system. Referees, for instance, can now expect to receive a personal e-mail to let them know what decision has been reached on a paper they review, and a complimentary pdf offprint of the paper if it is subsequently published. Although the average time from submission to first decision is now only 54 days, a small number of papers, despite our best efforts, are still awaiting a decision by the target date we set ourselves (90 days), and we do concentrate our efforts on progressing these.

### Resources available electronically

Readers can sign up for Blackwell Publishing's e-mail alert service ([www.blackwell-publishing.com/ealerts/](http://www.blackwell-publishing.com/ealerts/)) to receive tables of contents (e-tocs), with links to abstracts, as soon as they are available. *Journal of Ecology* e-tocs have had the largest circulation of any of the nearly 700 Blackwells' journals for the past two years. There is no charge for access to abstracts, but full text of all articles published since 1998 is also available electronically to subscribers, and individual articles can be accessed for a small fee. Fourteen papers published in *Journal of Ecology* have been downloaded over 500 times in the past year, and the most popular, a recent Tansley Lecture (Körner 2003), has already been downloaded over 1200 times.

The entire back run of the journal (i.e. from 1913) is available electronically via JStor ([www.jstor.org](http://www.jstor.org)). Members of the British Ecological Society can take advantage of a new service which offers instant electronic access, together with search facilities, to the entire back catalogue of all four of its journals for only £20 plus VAT per year.

Where accounts in our ongoing series on the Biological Flora of the British Isles are available electronically, the files can be downloaded free of charge. These files can be accessed from the index of published accounts ([www.britishecologicalsociety.org/articles/publications/journals/ecology/content/biologicalflora](http://www.britishecologicalsociety.org/articles/publications/journals/ecology/content/biologicalflora)). Supplementary material relating to published papers (the *Journal of Ecology* electronic archive) can also be accessed free of charge ([www.britishecologicalsociety.org/articles/publications/journals/ecology/content/supplementary](http://www.britishecologicalsociety.org/articles/publications/journals/ecology/content/supplementary)).

### Recognition in other places

Papers on two topics that we felt were particularly important also received outside recognition. Two studies (Rajaniemi 2002 and Rajaniemi *et al.* 2003) set out to investigate the mechanism underlying competition for resources in early successional old fields and their suggestion that root competition plays a more important

role than initially predicted was featured in a 'News and Views' article in *Nature* (Moore 2003).

Faculty of 1000 ([www.facultyof1000.com](http://www.facultyof1000.com)), a new online research tool that aims to highlight the most interesting papers in biology, based on the recommendations of over 1000 leading scientists, rated Falik *et al.* (2003) in its top 10 'hidden gems' in August. Whilst we do not regard *Journal of Ecology* as a 'less widely read journal', at least amongst ecologists (as shown by the download figures above), such recognition by plant biologists working in other areas is gratifying. Falik *et al.*'s paper, which again emphasizes the importance of below-ground interactions, uses innovative methods to analyse and interpret responses seen when roots are confronted by potential competitors. Such roots proliferate rapidly, at the expense of reproductive yield, and the apparent ability to identify self tissue allows wasteful intra-plant competition to be avoided. This work carries forward the important results of Gersani *et al.* (2001), which illustrated that a Tragedy of the Commons occurs when roots compete for the same pool of resources.

The journal is also read in unexpected places – the newspaper *Frankfurter Allgemeine* found general interest in Cherubini *et al.* (2002), which investigated the potential value of tree ring analyses in understanding how two common root pathogens kill trees.

### Young Investigator's Prize 2003

As in previous years, around a fifth of the papers published in the Journal in 2003 came from workers at the start of their research careers. Twenty papers were considered for the John L. Harper Prize this year, describing work in ecosystems from the tropics to polar regions. Factors controlling diversity and the effects of habitat degradation were, again, common themes, but applications of the study of past vegetation history and the interactions between plants and other organisms were also well represented. We congratulate all these young authors on their work, but four were selected for special mention because their carefully and clearly written papers represented a significant conceptual advance, reported particularly elegant experiments and/or were especially valuable to a wide range of ecologists. Our commendations go to Renate Fischer, Judit Lienert and John Tweddle and, particularly, to the winner of this year's prize, Jason Fridley.

Jason received his BA from Bennington College (Vermont) in 1997 and his PhD from the University of North Carolina at Chapel Hill in 2002. His doctoral work, under the direction of Robert Peet, focused on the relationship between local plant diversity and ecosystem production in different environmental contexts. Jason is currently shifting his focus from small-scale plant diversity to the regional-scale floristic diversity of Great Smoky Mountains National Park (NC and TN, USA) as a National Parks Ecological Research Fellow with Peter White at UNC. Jason will also be travelling to

Britain in 2004 to explore the ecological consequences of plant genotypic diversity with Philip Grime at the University of Sheffield as a NSF International Research Fellow.

The editors felt that his paper represented a valuable contribution to the highly topical debate about the relationship between small-scale plant diversity and community production (e.g. Hector *et al.* 1999; Weiher 1999; Rajaniemi *et al.* 2003). Using an excellent experimental design, Fridley (2003) shows that high species richness enhances production, and that the degree of yield enhancement depends on environmental conditions, being greatest when both nutrient supply and light supply were high. The mechanism involved was found to be niche complementarity in partitioning of the light resource, and this operated most strongly at high light levels. Such a mechanism is often proposed to explain overyielding, but we know of no other experimental demonstration of its involvement. In addition to recognizing these two important achievements, we were particularly impressed with the author's careful interpretation of the data that enabled him to distinguish between the influence of different potential causes of the yield elevation seen at higher species richness. A recent paper by Booth & Grime (2003) showed that the quantity and quality of genetic diversity within species plays a major role in affecting the dynamics and maintenance of diversity at the species level within vegetation, and we wish Jason well when he comes to follow up this important study.

The benefits to the ants in ant-plant mutualisms (provision of nesting space and food) are better understood than plant gains, although indirect biotic defence is often cited (e.g. Heil *et al.* 2001). Fischer *et al.* (2003) is an innovative piece of work, using tracer studies to investigate whether the ants contribute to the plant's N budget. The study is clean and simple and, although the quantity of nutrient moving from ants to plants is very small in terms of the plant's nutrient budget, it is significant. We hope that this useful information will prompt further work in the field.

Habitat fragmentation and isolation are known to have drastic effects upon the performance of plant populations, particularly those of rare species (as demonstrated by two previous winners of this prize: Fischer & Matthies 1998 and Kéry *et al.* 2000). Effects are seen in marine as well as terrestrial habitats (e.g. Reusch 2003) and in lower plants as well as angiosperms (e.g. Johansson & Ehrlén 2003). Lienert & Fischer (2003), however, present a detailed and impressive study of a locally abundant species, *Primula farinosa*, in alpine fens in Switzerland. They demonstrate convincingly that, even in a species which is neither rare nor in rapid decline, deleterious effects of small population size and isolation can be detected, and that many measures of plant performance are significantly lower for plants located at the periphery of populations than for more centrally located plants. They recommend that more attention is given to study of the effects of isolation on more common species,

and on performance of plants at different positions within isolated populations.

Novel ecological insights can come from sources other than experimental studies, as shown by the valuable review and analysis of some fundamental traits in seeds presented by Tweddle *et al.* (2003). They have put together a huge data set from a variety of sources, including their own work, as a means for answering a set of intriguing questions. They analyse the occurrence and frequency of desiccation sensitivity in seeds (a comparatively rarely studied trait, Dickie & Pritchard 2002) in a wide range of species and families of trees and shrubs, and relate their findings to climate and vegetation type. There is also some intriguing speculation about the evolution of the traits of interest and the paper was rated highly because it provides generic information.

### Notes for Authors and Reviewers

All but three of the 20 or so papers that arrived as paper copies in the post after 1 January 2003 were successfully uploaded onto our site at <http://britishecologicalsociety.manuscriptcentral.com/> (and even these three papers were tracked via the system), enabling us to make this the only route for submission (see Author Guidelines at the back of this issue and at <http://www.blackwell-publishing.com/jec> for an expanded version). A new version of the submission system, which we hope will be even simpler and more intuitive for all users, is currently under test and should become available during 2004. Meanwhile, we ask that any authors encountering problems with submission should use the 'Get help now' button (top right hand corner of every page on the site) or contact [support@scholarone.com](mailto:support@scholarone.com), rather than the editorial office, where IT knowledge, and the time available to deal with such issues, is limited. We hope that the already high percentage of referees willing to work within the system will continue to increase, but are happy to make alternative arrangements for those who find it difficult to review in this way. All we ask is that you should, if at all possible, upload your report via the system or, failing that, e-mail a copy of your report to the Managing Editor, in addition to any hard copy you return by post.

Our thanks go to all the colleagues who readily agree to referee papers for *Journal of Ecology*, despite other commitments: their prompt and efficient services are very much appreciated (see p. 185). We are particularly grateful to Dicky Clymo, Tom de Jong, Kyle Harms, Tomas Herben and Jan van Groenendael, each of whom has reviewed at least four manuscripts for us over the past year. It is easy to overuse individual referees, particularly in popular subject areas, and we therefore expect that authors of papers submitted to the Journal will agree to review.

Authors should consult the website for the most recent version of the Author Guidelines before preparing a paper for submission and must follow the

instructions carefully. Please note the following changes which have been implemented recently:

- The last point in the Summary should describe how the findings add to our general ecological understanding. This policy is intended to maximize the impact of your paper, by making it of as wide interest as possible. This point should therefore explain the importance of your paper in a way that is accessible to non-specialists.
- Up to 10 key-words may be given, and these too should include some generic items.
- We believe that manuscripts must reach certain standards before referees are asked to consider them: submissions that are not in the correct format, or which cannot be downloaded and printed reliably may therefore be returned to authors without review.
- Manuscripts for review must consist of no more than two files and should, ideally, be a single file with figures embedded in the text.
- To ensure conformity, figures should be prepared in the Journal's standard style.
- Authors should check files after uploading and conversion to pdf format, to ensure that no errors have been introduced (particularly in figures and tables).

### Errata

We have been informed of minor errors in two papers published in 2003.

In Table 1 of Bloor & Grubb (2003), the dry mass of *Athertonia* should be 1.7 g, and in Fig. 5 the codes for the two treatments should be reversed (p. 79 and p. 82, respectively).

Reanalysis of the data in Suzuki *et al.* (2003) (Tables on p. 119) has given rise to some slightly altered figures although the trends reported are not significantly altered. Revised analyses can be obtained from the authors.

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