

EDITORIAL

Journal of Ecology News: Data Archiving Compliance**David J. Gibson^{1*}, Amy T. Austin², Richard D. Bardgett³, Mark Rees⁴, Andrea Baier⁵ and Lauren Sandhu⁵**¹Department of Plant Biology, Center for Ecology, Southern Illinois University, Carbondale, IL 62901-6509, USA;²Facultad de Agronomía, University of Buenos Aires and IFEVA, Buenos Aires, Argentina; ³Faculty of Life Sciences, The University of Manchester, Michael Smith Building, Oxford Road, Manchester M13 9PT, UK; ⁴Department of Animal and Plant Sciences, University of Sheffield, Sheffield S10 2TN, UK; and ⁵British Ecological Society, Charles Darwin House, 12 Roger Street, London WC1N 2JU, UK**Communicating science**

Who cares about scientific papers apart from scientists? Communicating science is increasingly important as journals strive to make their content accessible to a wide-ranging audience. To this end, at the *Journal of Ecology*, we have several initiatives that we hope allow our published work to move beyond the halls of academe. The *Journal* publishes Commentary papers (see below), puts out press releases, is active on social media (Facebook, Twitter) and continues to run the *Journal of Ecology* Blog. This year, we have appointed Pierre Mariotte to the Associate Editorial Board with the primary responsibility of managing and promoting the wide range of content on our blog. Editor's choice summaries of papers regularly feature on the blog, as well as podcast interviews with leading ecologists, and a host of other articles on various ecological topics. For example, Executive Editor David Gibson recently interviewed *Ecological Society of America* (ESA) past-President Scott Collins, while at the annual ESA meeting in Baltimore, USA, and discussed, among other things, the potential for cross-society, cross-journal initiatives now that the five *British Ecological Society* journals and the ESA journals will all be published by Wiley. This interview along with an accompanying article by Collins is available through our blog. Additional interviews and accompanying blog posts were with Botanical Flora of the British Isles Editor Tony Davy associated with our Charismatic Orchids Virtual Issue and Associate Editor Carol Thornber associated with our Marine Ecology Virtual Issue. Associate Editor Caroline Brophy's post 'Should ecologists be banned from using *P*-values' in 2015 was the most popular post we have ever had. Our Eminent Ecology series is another example of how we make ecological work more accessible. In 2015, we were pleased to honour Deborah Goldberg by publishing a Virtual Issue collection of 10 of her most influential *Journal of Ecology* papers, a podcast interview with her, and a fascinating post by her on our blog.

Data archiving compliance

Last year, we announced the mandatory data archiving policy that *Journal of Ecology* and the other BES journals introduced

at the start of 2014 (Gibson *et al.* 2015). Two years into this policy we can report that this has been a successful policy. Of 137 relevant papers in 2015 (i.e. papers presenting analyses of new data), 93% archived their data appropriately (Table 1). The most widely used data archive for *Journal of Ecology* authors was Dryad (74%). Authors of non-compliant articles either claimed to include raw data in the article and supporting information (but did not do so), archived their data inappropriately on their own author's website or had no Data Accessibility statement and hence no archived data. We will endeavour to ensure 100% public data archiving net in the future. The overall success of this policy reinforces the aspirations that the BES and others in the ecological community have for increasing data availability (Whitlock *et al.* 2010; Norman 2014). We do not know why researchers choose particular data archives, although payment of the fee by the BES for archiving with Dryad is likely a huge motivation. In addition, Swauger & Vision (2015) suggest that ease of submission and perceived trustworthiness of the archive are important issues among others.

Impact

We maintained the *Journal's* position as 12th of 144 ecology titles and 13th of 200 plant sciences titles, with a slight drop in our Impact Factor from 5.694 to 5.521, confirming our position as a leading journal for publishing the most ground-breaking plant ecology research. Impact factors are just one measure of journal importance, but they provide one view of a *Journal's* standing relative to other journals in the field. Over the last year, we have also published a number of highly influential papers, which are getting a lot of attention. For example, as part of the Forest Resilience Special Feature, Reyer *et al.*'s (2015b) essay review 'Forest resilience and tipping points at different spatio-temporal scales: approaches and challenges' has been cited 12 times (as of October 2015) with an Altmetric score of 13, and Salguero-Gómez *et al.*'s (2015) review 'The COMPADRE Plant Matrix Database: an open online repository for plant demography' has 8 citations and an Altmetric score of 67.

Submissions and the review process

Submissions to the *Journal* continue to increase. By necessity, we reject approximately 43% of papers without sending them to

*Correspondence author. E-mail: dgibson@plant.siu.edu

Table 1. Data archiving compliance in 2015 *Journal of Ecology* articles

Issue	Dryad	National archive	Institutional archive	Other archives*	Supporting information	Non-compliant†	Total articles‡
1	14	2	0	0	1	3	20
2	14	4	1	4	2	0	21
3	12	3	2	2	2	4	20
4	16	1	4	4	1	1	24
5	17	1	2	1	5	1	25
6	14	1	2	1	8	0	27
Sum	101	12	11	12	19	9	137

*Other archives include the following: Figshare ($n = 3$), GenBank ($n = 2$), Alpine Palynological Database (ALPADABA), European Pollen Database ($n = 2$) and Pangaea, Neotoma, Vegbank ($n = 1$ each).

†Non-compliant includes Supporting information with incomplete data ($n = 5$), use of author personal website ($n = 2$), incorrect claims that data are in tables or figures ($n = 1$) or no Data Accessibility statement ($n = 1$).

‡Sum of data bases may be greater than total articles in some issues because some articles archived in more than one repository.

outside review. These papers are evaluated by a Senior Editor and sometimes an Associate Editor and may be out of scope, flawed, confirmatory or on an already well-researched topic.

Increasingly, authors of rejected papers are taking up the opportunity for their manuscript to be referred with reviews to our sister, cascade journal *Ecology & Evolution*. Referral to *Ecology & Evolution* allows a rapid transfer, with reviews of a manuscript to an increasingly high-profile, open-access, general ecology journal. The Executive Editor of *Journal of Ecology* can indeed attest from personal experience that referrals to *Ecology & Evolution* can afford a relatively smooth and satisfying transition towards publication (i.e. Gage *et al.* 2015).

Content

In addition to publication of a very wide variety of papers on all aspects of plant ecology, including algae and fungi, we are actively encouraging more submissions of papers representing freshwater and marine aquatic ecosystems. Some recent examples of papers in this area can be seen in our Marine Ecology Virtual Issue and in the freshwater ecology papers of Le Bagousse-Pinguet *et al.* (2012) and Venail *et al.* (2014). We are also keen to encourage more submissions on the consequences of vegetation change for biogeochemical cycling and feedbacks to global change, including studies done at a biome or Earth-system scale.

Special Features continue to be a very important part of the *Journal*. These focused collections of papers provide the most recent and up-to-date assessment and data on topics that the editors feel are at the forefront of our discipline. In 2015, we published three Special Features accompanied by editorials:

‘Forest resilience, tipping points and global change processes’ (Reyer *et al.* 2015a),

‘Eco-evolutionary dynamics in plant: interactive processes at overlapping timescales and their implications’ Shefferson & Salguero-Gómez (2015),

‘Whether in life or in death: fresh perspectives on how plants affect biogeochemical cycling’ Austin & Zanne (2015)

More Special Features are in various stages of planning for 2016. In addition, the first cross-BES journal Special Feature ‘Demography beyond the Population’ edited by Alden Griffith, Jessica Metcalf, Dylan Childs, Rob Salguero-Gomez, Cory Merow and Sean McMahon will be published in 2016 with papers in all five of the BES journals. *Journal of Ecology* will publish some of these papers. We are excited about this collaboration.

Topics for new Special Features are always welcome and prospective guest editors should contact the Editorial Office with enquiries and ideas. If you are organizing a symposium or special session of presentations at a meeting, consider whether or not some of the presentations may be suitable for a Special Feature. The *Journal* Editors have been known to cherry-pick symposia and thematic topic sessions for possible Special Features out of meeting and conference programs, so watch out!

The Biological Flora of the British Isles (BFBI) accounts remain an important and popular feature in the *Journal*. Four BFBI accounts were published in 2015, on *Ambrosia artemisiifolia*, *Crambe maritima*, *Neottia ovata* and *Ophrys sphegodes* (Essl *et al.* 2015; Jacquemyn & Hutchings 2015; Kotlínek, Těšitelová & Jersáková 2015; Sanyal & Decocq 2015, respectively). We are celebrating 75 years of the BFBI series in 2016 with a historical retrospective by BFBI Editor Tony Davy in a forthcoming issue of the BES Bulletin. In addition, we pulled together a ‘Charismatic Orchids’ Virtual Issue with 32 papers on terrestrial orchids from the *Journal*, including 12 BFBI accounts, along with an accompanying blog post by Hans Jacquemyn. As BFBI Editor, Tony Davy is always pleased to receive enquiries from authors interesting in preparing a new account.

The Editorial Board

We welcomed the addition of the following new Associate Editors (AEs) in 2015: Meghan Avolio, David Edwards, Jacquelyn Gill, Andy Hector, Laura Huenneke (returning to the ecological fold after several years in administration), Amy Iler, Emily Lines, Rebecca McCulley, Carol Thornber, Nicole van Dam and Amy Zanne. These new AEs have allowed us to enhance our editorial coverage of several key topics (e.g. palaeoecology, aquatic ecology, macroecology), fill gaps left by AEs that have

left the board and increase our representation of women ecologists on the board (to 39%) from around the globe.

Input and communications with our Associate Editorial Board is important. To this end, we were pleased that Executive Editor David Gibson, along with BES Head of Publishing Catherine Hill, was able to discuss *Journal* matters over dinner with several AEs at the Annual Meeting of the Ecological Society of America in Baltimore, USA, in August. Five AEs have stepped down from the board this year: Bob Jones, Gerlinde De Deyn, Eelke Jongejans, Sandra Lavorel and Melinda Smith. We are very grateful to them for their fine work on behalf of the *Journal*.

Harper Review and Commentary papers

A new initiative being presented in this issue of the *Journal* is the annual publication of a Harper Review essay. These reviews will provide an opportunity for a well-established ecologist, commissioned by the *Journal* Editors, to critically review a topical emerging research area within their field of expertise. The first of these reviews, ‘Does the biogeographical origin of species matter? Ecological effects of native and non-native species and the use of origin to guide management’ by Yvonne Buckley and colleague Jane Catford is published in this issue (Buckley & Catford 2016).

We announced last year the introduction of Commentary papers as a new type of article in the *Journal*. As stated in our Author Guidelines, ‘Commentaries – short positive assessments of an article that appears in the same issue, highlighting the article’s scientific significance’. ‘Commentaries are commissioned by the Journal Editors and are usually written by one of the reviewers of the article they refer to’. We have now published two Commentary papers, Mark Scriber’s (2015) assessment of Chabaane *et al.*’s (2015) article ‘Impact of exotic insect herbivores on native tritrophic interactions: a case study of the African cotton leafworm, *Spodoptera littoralis* and insects associated with the field mustard *Brassica rapa*’ and Dixon & Stella’s (2016) critique of Dong *et al.*’s (2015) paper, ‘Temporal variability in hydrology modifies the influence of geomorphology on wetland distribution along a desert stream’. We hope that these commentaries provide additional insight into the importance and relevance of the papers that they accompany.

References

Austin, A. & Zanne, A. (2015) Whether in life or in death: fresh perspectives on how plants affect biogeochemical cycling. *Journal of Ecology*, **103**, 1367–1371.

- Buckley, Y.M. & Catford, J. (2016) Does the biogeographical origin of species matter? Ecological effects of native and non-native species and the use of origin to guide management. *Journal of Ecology*, **104**.
- Chabaane, Y., Laplanche, D., Turlings, T.J.C. & Desurmont, G.A. (2015) Impact of exotic insect herbivores on native tritrophic interactions: a case study of the African cotton leafworm, *Spodoptera littoralis* and insects associated with the field mustard *Brassica rapa*. *Journal of Ecology*, **103**, 109–117.
- Dixon, M. & Stella, J. (2016) Temporal variability in hydrology modifies the influence of geomorphology on wetland distribution along a desert stream: a commentary on Dong *et al.* (2015). *Journal of Ecology*, **104**.
- Dong, X., Grimm, N.B., Ogle, K. & Franklin, J. (2015) Temporal variability in hydrology modifies the influence of geomorphology on wetland distribution along a desert stream. *Journal of Ecology*, **103**. doi:10.1111/1365-2745.12450.
- Essl, F., Biró, K., Brandes, D., Broennimann, O., Bullock, J.M., Chapman, D.S. *et al.* (2015) Biological Flora of the British Isles: *Ambrosia artemisiifolia*. *Journal of Ecology*, **103**, 1069–1098.
- Gage, K.L., Gibson, D.J., Young, B.G., Young, J.M., Matthews, J.L., Weller, S.C. & Wilson, R.G. (2015) Occurrence of an herbicide-resistant plant trait in agricultural field margins. *Ecology and Evolution*, **5**, 4161–4173.
- Gibson, D.J., Austin, A.T., Bardgett, R.D., Rees, M., Baier, A. & Sandhu, L. (2015) *Journal of Ecology News*. *Journal of Ecology*, **103**, 90–92.
- Jacquemyn, H. & Hutchings, M.J. (2015) Biological Flora of the British Isles: *Ophrys sphegodes*. *Journal of Ecology*, **103**, 1680–1696.
- Kotlínek, M., Tešitelová, T. & Jersáková, J. (2015) Biological Flora of the British Isles: *Neottia ovata*. *Journal of Ecology*, **103**, 1354–1366.
- Le Bagousse-Pinguet, Y., Liancourt, P., Gross, N. & Straile, D. (2012) Indirect facilitation promotes macrophyte survival and growth in freshwater ecosystems threatened by eutrophication. *Journal of Ecology*, **100**, 530–538.
- Norman, H. (2014) Mandating data archiving: experiences from the frontline. *Learned Publishing*, **27**, 35–38.
- Reyer, C.P.O., Rammig, A., Brouwers, N. & Langerwisch, F. (2015a) Forest resilience, tipping points and global change processes. *Journal of Ecology*, **103**, 1–4.
- Reyer, C.P.O., Brouwers, N., Rammig, A., Brook, B.W., Epila, J., Grant, R.F. *et al.* (2015b) Forest resilience and tipping points at different spatio-temporal scales: approaches and challenges. *Journal of Ecology*, **103**, 5–15.
- Salguero-Gómez, R., Jones, O.R., Archer, C.R., Buckley, Y.M., Che-Castaldo, J., Caswell, H. *et al.* (2015) The COMPADRE Plant Matrix Database: an open online repository for plant demography. *Journal of Ecology*, **103**, 202–218.
- Sanyal, A. & Decocq, G. (2015) Biological Flora of the British Isles: *Crambe maritima*. *Journal of Ecology*, **103**, 769–788.
- Scriber, M.J. (2015) Invasive species alter chemical cascades and community interactions: Commentary on Chabaane *et al.* 2014. *Journal of Ecology*, **103**, 118–120.
- Shefferson, R.P. & Salguero-Gómez, R. (2015) Eco-evolutionary dynamics in plants: interactive processes at overlapping time-scales and their implications. *Journal of Ecology*, **103**, 789–797.
- Swager, S. & Vision, T.J. (2015) What factors influence where researchers deposit their data? A survey of researchers submitting to data repositories. *International Journal of Digital Curation*, **10**, 68–81.
- Venail, P.A., Narwani, A., Fritschie, K., Alexandrou, M.A., Oakley, T.H. & Cardinale, B.J. (2014) The influence of phylogenetic relatedness on species interactions among freshwater green algae in a mesocosm experiment. *Journal of Ecology*, **102**, 1288–1299.
- Whitlock, M.C., McPeck, M.A., Rausher, M.D., Rieseberg, L. & Moore, A.J. (2010) Data archiving. *The American Naturalist*, **175**, 145–146.