



On publishing in *Mycorrhiza*

Jan V. Colpaert¹ · David P. Janos²

Published online: 5 February 2018
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The first issue of *Mycorrhiza* appeared in September, 1991, thus the journal recently has passed its 25th, “silver” anniversary year. As the world has changed, so has our journal grown, prospered, and most importantly, evolved in response to the progress of mycorrhiza research and the needs of “mycorrhizasts.” Herein, we briefly reprise the journal’s past and look forward to the future with especial attention to the important question of how to get your manuscript published in *Mycorrhiza*.

Editorial history

January, 2016, saw a major change for *Mycorrhiza*; after 21 years of exemplary service to the journal and to our discipline, Vivienne Gianinazzi-Pearson resigned as Editor-in-Chief. Simultaneously, Randy Molina who served as Co-Editor-in-Chief for nine years – longer than any other except Vivienne – also resigned. Both Vivienne and Randy had retired from their professional positions and wished to spend increased time in other pursuits and with grandchildren. Nevertheless, both graciously have agreed to serve on the journal’s editorial board where they will continue to guide authors of mycorrhiza research.

Walter Jülich was instrumental in founding the journal in 1991, and Michael F. Allen joined him as Co-Editor in overseeing four issues per year. By 1993 (Volume 4, Number 1), however, the number of high-quality submissions had increased, and the journal expanded to six issues per year. In 1994 (Volume 5, Number 3), Walter passed the editorship to

Vivienne, who had been a member of the editorial board since the journal’s inception. With Vivienne’s appointment, there also was an expansion of the editorial board. Notably in 1996, the year of the first International Conference on Mycorrhizae (ICOM), *Mycorrhiza* included the 6th edition of the “International Directory of Mycorrhizologists” (Furlan 1996) which previously had been distributed to participants at the North American Conference on Mycorrhizae (NACOM) which, together with the European Symposium on Mycorrhizae (ESM), was a forerunner of the ICOM.

In 1997 (Volume 7, Number 1), Mike Allen passed the co-editorship to David P. Janos. Like Mike, Dave was editor for the Americas while Vivienne handled submissions for the rest of the world, a considerable task. Throughout those years, all manuscripts had to be submitted as paper copies which were sent to reviewers and returned by national and international mail. But the Internet had awakened, and with the third issue of Volume 11 (2001), we were able to announce that all accepted articles would be published quickly online through Springer’s “Online First” initiative. With the next issue, F. Andrew Smith took over the editorship from Dave, and together with Vivienne saw the journal expand to eight issues per year with Volume 15 (2005). Randy replaced Andrew in 2006 (Volume 16, Number 8) at which time, the Editors-in-Chief decided no longer to divide their duties geographically, but instead to split them topically by mycorrhiza type with Vivienne handling arbuscular mycorrhiza manuscripts and Randy handling ectomycorrhizas and other types of mycorrhizas in order best to take advantage of their respective primary research experience and knowledge. That arrangement continues today with Dave Janos returning to the editorship for arbuscular mycorrhizas, and Jan Colpaert, formerly a long-serving member of the editorial board, joining him as Co-Editor-in-Chief for ectomycorrhizas and other mycorrhiza types.

Volume 17 (2006) saw *Mycorrhiza* given a new cover to mark its acceptance as the official journal of the International Mycorrhiza Society (<http://www.mycorrhizas.org/>). An

✉ David P. Janos
davidjanos@miami.edu

Jan V. Colpaert
jan.colpaert@uhasselt.be

¹ Research group Environmental Biology (CMKMB), University Hasselt, 3590 Diepenbeek, Belgium

² 2440 NW Hummingbird Drive, Corvallis, OR 97330, USA

especially important accompanying change was Springer's implementation of online submission of manuscripts (Molina 2007).

Throughout their combined three decades as Editors-in-Chief, Vivienne and Randy accomplished much with the journal. Randy most notably invited and oversaw a supplemental issue to Volume 24 (April 2014) which was guest edited by Alessandra Zambonelli and Beatriz Águeda and focused on the biology, ecology, and cultivation of truffles. That special issue reflected the journal's breadth in presenting both basic and applied research. Vivienne worked indefatigably to improve and promote the journal, and has overseen the rise of its Thomson Reuters Journal Citation Reports one-year impact factor from 0.683 in 1997, through 1.467 in 2001 (with Dave Janos) and 1.813 in 2006 (with Andrew Smith), to 3.459 (2014; with Randy Molina). For such contributions to our discipline, Vivienne and Randy deserve high recognition and gratitude from us all.

Also deserving of our thanks are outgoing members of our Editorial Board, most of whom have served for nearly a decade. We sincerely appreciate Gisela Cuenca, Ian A. Dickie, Roger Finlay, Catherine Gehring, Bettina Hause, Thomas R. Horton, Melanie D. Jones, Ari Jumpponen, Xiaolin Li, Joseph B. Morton, Kazuhide Nara, Teresa E. Pawlowska, Silvia Perotto, Hanne N. Rasmussen, and Katarzyna Turnau having shared their expertise in a wide variety of investigations of mycorrhizas from throughout the world. We are especially grateful to F. Andrew Smith who has guided *Mycorrhiza* since 2001 as Editor-in-Chief and as a member of the Editorial Board. With 2017's Volume 27, Number 6, we welcome a new complement of Editorial Board members who diversify our representation of sub-disciplinary experience to emphasize cutting-edge areas of research into mycorrhizas.

How to get published in *Mycorrhiza*

Following its elevated impact factor, the number of manuscripts submitted annually to *Mycorrhiza* has increased, thereby necessitating heightened stringency in editorial decision-making. Nevertheless, we maintain a relatively high acceptance rate of roughly one of four submitted manuscripts. Although we do not wish to decline manuscripts – which squanders the time and resources of investigators, reviewers, and editors – our responsibility to you, our readers, is to publish only the most informative, novel research on mycorrhizas. Our goal remains as it was articulated by Vivienne and Mike Allen (Gianinazzi-Pearson and Allen 1995), “to ensure that *Mycorrhiza* is the international journal of mycorrhizal research.”

In order for your manuscript to have the best chance of acceptance for publication, we strongly encourage authors to keep in mind that our readership is international and expects articles that reveal general principles of mycorrhiza biology.

Prospective authors should ask themselves, “What will an international audience generally learn from my research that was not known previously?” Thereby, descriptions of ectomycorrhiza morphology and molecular phylogeny, or simple lists of host species and their fungus associates (e.g., molecular “community” studies) – even for geographic locations not previously investigated – are likely to be judged as most appropriate for a regional or local journal. Similarly, a long-accepted editorial practice has been that “big plant/little plant” results which primarily illustrate that mycorrhizas improve plant growth in response to mineral nutrient-, drought-, or salt-stress, are best suited for journals that focus on plant production (agriculture, forestry). Such findings are not revelatory to the readers of *Mycorrhiza*. The first question asked of manuscript reviewers on the journal's response form is “Is the information in the manuscript new and original?” Investigators must appreciate that studies of little investigated locations, host plant species, or fungi (including purely taxonomic reports) while original, might be evaluated by reviewers and editors as insufficiently “new” if they do not offer novel, general insights.

After extended discussion, the outgoing and incoming Editors-in-Chief have concluded that besides applying the criteria of “new and original” when evaluating manuscripts, our understanding of what is a “mycorrhiza” has evolved. While mycorrhizas are taxonomically, morphologically/anatomically, and physiologically highly diverse (Imhof 2009) and thereby are difficult to define inclusively, they are metaphorically akin to “pornography” in United States Supreme Court Justice Potter Stewart's famous line, “I know it when I see it.” While all mycorrhiza researchers recognize the conventionally-accepted major types of mycorrhizas, separating root endophytes from them can be challenging. In order to keep the journal focused on its namesake “mycorrhiza,” we no longer will entertain manuscripts solely about *Piriformospora indica* (Verma et al. 1998) or “dark-septate endophytes (DSE)” (Jumpponen and Trappe 1998; notwithstanding Jumpponen 2001) unless they have been studied in combination with conventional mycorrhizas. On the other hand, we do wish to foster continuing evaluation of “what is a mycorrhiza” (e.g., Orchard et al. 2017). Moreover, as the only journal devoted exclusively to mycorrhizas, we welcome historical reminiscences by pioneers of the field (HacsKaylo 2017) and insightful reinterpretations/translations of “classic” papers important to the history of our science (Trappe 2005, Selosse et al. 2017).

We can offer several positive suggestions, gleaned from problems that we see frequently, for those seeking to publish their work in *Mycorrhiza*. The first is to consider the audience. For readers of *Mycorrhiza*, a full paragraph of introduction describing what a mycorrhiza is and does is unnecessary. What is necessary is to provide readers with background that focuses on the antecedent literature most relevant to the

subject of your manuscript and from which the hypotheses that you investigate flow logically and clearly. Avoid the use of excessive acronyms and abbreviations, because every additional acronym places a heavier burden on readers to “translate” its subsequent appearances (sometimes only one!). Excessive acronym use simply may reflect molecular genetics/proteomics envy. Furthermore, if you define “AM” as “arbuscular mycorrhizas,” you should not also use “AM” for the adjectival “arbuscular mycorrhizal” fungi. Use it for one or the other (and write it in full otherwise). Another way to avoid burdening readers is to use terms consistently; do not refer to a single thing or concept with different terms or expressions. Use figures to highlight your most important results, and take care to provide fully informative legends for them so that they can be understood without reading the text of your article. After a title catches their eyes, many readers may peruse only the abstract and figures to decide if they wish to read the full text. Most importantly, write to meet readers’ expectations (Gopen and Swan 1990) by closely associating subjects and verbs, avoiding nominalizations, and placing old information at the beginning of sentences and new information at the end, in the emphasis position. In your discussion section, interpret your results (don’t just state that they do or do not agree with previously published articles). Finally, as editors, we plead that in suggesting potential reviewers for your manuscript you name those authors whose publications have been most informative for the research that you are reporting (not friendly colleagues at your own or neighboring institutions). Please follow these suggestions, and we will look forward to receiving your submissions for publication in *Mycorrhiza*.

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