

Charlie Fenster, as of Fall 2014:

Editor for EVOLUTION- 4 years, AMERICAN JOURNAL OF BOTANY- 3 years, INTERNATIONAL JOURNAL OF PLANT SCIENCES- 12 years, ECOLOGY AND EVOLUTION – 3 years, JOURNAL OF POLLINATION ECOLOGY – 2 years.

Reviewer of countless manuscripts as an ad hoc reviewer, one edited book volume (about 50 chapters, each the equivalent of one manuscript), and one book.

As an editor and reviewer I ask:

Has the author identified an interesting topic?

Has the author identified gaps in the literature?

Has the author framed questions to address the gaps in the literature?

Do the methods allow the author to address the original questions?

Are the methods clearly described?

Does the experimental design allow proper investigation of the questions, for example pseudo replication or low sample sizes, or lack of a control, etc.?

Are the analyses conducted properly?

I care less about the discussion, but focus on whether the discussion is based on the results versus speculation or misinterpretation.

The first 3 points are pretty easy to evaluate, but the methodology, analyses, and understanding the results takes much more time to understand and review. If a P value looks suspicious or if a F-test appears to have inflated df, then I especially try to understand how the author(s) came to the conclusions that they did, even to the extent of redoing the analyses.

Editorial comments, typos, sentence structure. My role as a reviewer is not to

catch these types of mistakes. If there are too many of them you can return the review to the editor and simply state that the language is of such poor quality as to preclude review. However, if there are only a handful of instances, I will point out ways to tighten or clarify specific sentences. But if you feel the urge to act as a copyeditor, then go ahead.

Have I made mistakes as a reviewer and editor? YES, but with low frequency, perhaps on the order of 1 or 2%, based on the paper being published in the journal or elsewhere, and concurring with those editors and reviewers that the paper was better than I originally thought.

When we read a paper we expect that it has gone through proper peer review and that it meets certain standards. Reviewers are the important gate-keepers to the quality of our disciplines, so the task should be undertaken seriously.

But it is also a fun and rewarding endeavor.

Remember to write the review with constructive criticisms in mind. Treat the author the way you would want to be treated.

In terms of number of reviews, since it takes at least 3 people to review a manuscript, more if the manuscript is sent out for second review following revision, then I review a minimum of 3 x the number of manuscripts I have submitted for that year. I often do more, depending on the circumstances, that is, what other commitments I have. For example, when organizing the Evolution 2013 meetings, which took about 5-6 months of dedicated time for 2012-2013, I begged out on some review requests because I did not have the time and I felt I was doing enough general service to the community. The same goes if I am serving on a panel, requiring me to carefully review 15-20 proposals. I have to take a bye on review commitments or accept under the condition the review will be completed after the panel meets, etc.

Other details:

Conflict of interest varies from journal to journal. Although I think I can perform a review without bias, it is important to let the editor know if you have a conflict of interest situation (collaboration, former student, former mentor, same campus, etc.).

When you write a review of a topic (such as first author of a review in the Annual Reviews volumes) and if it is well cited, expect to be asked to review papers on that topic, as in a request up to one per week. Also expect to turn down such requests, unless all you want to do is write reviews of other's manuscripts.

In my experience the review process works best for society journals. There are certain journals, e.g., *EVOLUTION*, that over-review, that is, the reviews are exhaustive, detailed, thoughtful, sometimes requiring resubmission and a repeat of the process, but in the end, the manuscript is much improved.

Other resources:

Bourne, P. E., and A. Korngreen. 2006. Ten simple rules for reviewers. *PLOS Comput. Biol.* 2: 973-974.

Hoppin, F. G., Jr. 2002. How I review an original scientific article. *American Journal of Respiratory and Critical Care Medicine*, 166: 1019-1023.

McPeck, M. A., et al. 2009. The golden rule of reviewing. *The American Naturalist*, Volume 173.