

FORUM

Reviewing a festschrift: what are we doing with our scientific lives?

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A review of:

During, H. J., Werger, M. J. A. & Willems, H. J. (eds.)
1988. **Diversity and Pattern in Plant Communities**.
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90-5103-021-5. Price: USD 47.-.

Writing reviews of festschriften is a dangerous occupation for at least two reasons. A review of a festschrift may mistakenly be treated as a review of the person whom it is intended to honour. Even if this misunderstanding is avoided, a review of a festschrift is fraught with unknown risks, like a walk along a dark road on a stormy night. It affects a network of people who know one another in mysterious ways. Who better than ecologists to know that negative feedback in one area of a network may provoke catastrophic responses from another unexpected area of the network? Or, to put it in more colloquial terms, 'let sleeping dogs lie'. My own recent experience in this area is that sleeping dogs may not only be testy when awakened, they may be positively rabid (Harvey 1990). Life is short, and who needs more enemies, right? (Reviewing an ordinary symposium volume may give similar problems, but I will concentrate on festschriften now.) Not long ago I spoke to a colleague who privately voiced misgivings about a festschrift he was reviewing. (I thought 'mixed feelings' was actually a charitable assessment.) Yet when the review appeared, it was as if the reviewer had experienced a miraculous conversion on the road to Damascus. Presumably he had considered the above constraints, and stepped quietly around the dog.

Even if one avoids these two political minefields, reviewing a festschrift can strike at the heart of our deepest, darkest fears as ecologists: what are we doing with our scientific lives? Are we really getting anywhere? Recent experience with symposia and symposium volumes suggests to me that if the Wright brothers had been ecologists, we would still be sailing to Europe to attend symposia where groups of ecologists discussed the many different shapes and colours of

wings one finds in birds and butterflies. Is it our pastime to get together in groups and give erudite papers about old problems citing the latest work of our friends, or is it our profession to make concrete progress towards solving real problems? I enjoy going out for a beer with friends as much as the next person (and possibly more), but don't need a scholarly symposium as an excuse to socialize. I am increasingly convinced, however, that many practitioners of ecology enjoy getting together to talk about the plants and animals they have seen, without any real concern for the discipline. Peters (1980) has already written about this distinction between natural history and ecology, but given how rarely this paper is cited, one presumes that this fundamental distinction doesn't trouble most workers on a day-to-day basis.

But I digress. Being aware of the above pitfalls, let me lay out in advance four criteria which we may use to evaluate festschriften. I offer them here explicitly in the hope that they will constrain future reviewers, and future planning committees for festschriften (and symposium volumes in general).

1. Is there a clear, focused, timely theme?
2. Does the literature cited provide students with an overview of key references?
3. Are there significant new insights into the selected theme?
4. If none of the above, do the papers at least illustrate the diversity of approaches being used, providing graduate students with a tool box?

The festschrift **Diversity and Pattern in Plant Communities** includes a series of 24 papers presented at an international symposium held in July 1987 near Utrecht, the Netherlands, at the occasion of the retirement of the late Jan J. Barkman as a professor at Utrecht University. The title is daunting, for as the editors note, these are two of the principal themes of plant ecology. To write a book on either would be a challenge in its own right. How does the book rate according to the criteria listed above?

In general the literature reviews are sketchy. For example, in papers dealing with plant diversity, one would have expected to see at least passing reference made to the pioneering work of Al-Mufti et al. (1977) which demonstrated the bitonic relationship between diversity and biomass. This is one of the very few general empirical relationships we have, and it has been tested and validated in descriptive and experimental studies from around the world. A student reading this book might not even realize that such a relationship exists, much less that there are solid tests for its generality.

Another such relationship, dealing with management and nutrient availability in grasslands, makes not a single reference to any of Grime's extensive series of studies on this topic, from his paper specifically on grassland management more than a decade ago (1973) through to the recent *Comparative Plant Ecology* (Grime, Hodgson & Hunt 1988). The literature on competition, zonation, direct gradient analysis, the inference of process from pattern, experimentation, null hypotheses, etc., is similarly patchy.

Are there significant new insights? One paper, describing eight years of work on small-scale spatial patterns in vegetation, has, as one conclusion "... pattern analysis can only suggest causes of pattern, which then must be determined experimentally"! Another, with extensive multivariate analyses of plant species composition of forests, concludes in part (with unintended irony?) that the results "do not provide evidence ... that competition between species determines community composition". Another concludes that grazing is important to maintain diversity in chalk grassland.

With respect to methods, the studies themselves tend to be fairly traditional, emphasizing description and interpretation. Newer approaches such as screening for traits, large-scale field experiments or mesocosms, receive less attention. Therefore I could not recommend this to students as reading to stimulate new research ideas in plant ecology.

A few papers were noteworthy. For example, I enjoyed Collins & Glenn's thorough treatment of disturbance and community structure in North American prairies. Similarly, Noble, Moore & Strasser provide a useful overview of predictive models for vegetation dynamics. Any reader is likely to find a couple of such papers.

I reluctantly conclude that the book fails to meet the four criteria which would lead me to purchase it, ask my library to purchase it, or suggest it as reading to my graduate students. In the short run, practising plant ecologists (and their libraries) might be better off investing their money in a subscription to the *Journal of Vegetation Science*.

References

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*It was the Editor's decision to put this review in the Forum section owing to the general issues being addressed therein.