



LIMNOLOGY AND OCEANOGRAPHY
BULLETIN

ASLOAdvancing the science of
limnology and oceanography

ANNOUNCING A NEW ADDITION— LIMNOLOGY AND OCEANOGRAPHY: REVIEWS

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In the last membership survey, ASLO members clearly identified the need for scholarly reviews in the aquatic sciences. After discussing various ways of responding to this mandate with the ASLO Board and the Publications Committee, we decided to add a new section to *L&O* as a means to explore this publication mode. This section (*Limnology and Oceanography: Reviews*) will be overseen by a Reviews Editor, and I am happy to announce that Pete Jumars has agreed to fill this new position on the *L&O* editorial board. Pete is a distinguished scientist who has received a number of awards, including the Hutchinson Award from ASLO. Pete is very familiar with the business of editing; he was the editor in chief of *Limnology and Oceanography* from 1986–1992, has served on the editorial boards of *Continental Shelf Research* and *ISI Atlas of Marine Science*, and on the editorial advisory boards of ASLO and AGU. Pete has written many reviews and is keenly interested in adding this new dimension to *L&O*.

To ensure that space devoted to the new Reviews Section does not result in an increase in the already high rejection rate of regular *L&O* papers, I have requested that the size of *L&O* be increased from 2100 to 2400 pages per volume. I look forward to working with Pete as this new section of *L&O* takes shape.

SCHOLARLY REVIEWS IN LIMNOLOGY AND OCEANOGRAPHY

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Many aquatic scientists feel increasingly challenged to keep up with a burgeoning literature. For those of us with broad interests, the result is serious compromise. My compromise is to read primarily abstracts, reviews and books—not the primary literature—in areas of science where I have or plan no research of my own. I find the medium of scholarly reviews even more useful in areas where I do conduct or plan research, and I find it surprising that there are so few review journals that treat limnology, oceanography or both (Table 1). These journals as a group not only have remarkably high impact factors, but also have much higher rates of increase in impact than do most non-review journals. It is hard to find a better scaffold than an insightful review from which to build a graduate-student thesis or dissertation. Half of the dozen Ph.D. students I have supervised have included such reviews, and several already are citation classics. A review that grew out of my postdoctoral work with Kristian Fauchald (Fauchald and Jumars 1979) jump-started my own career. It is a genre that I value particularly highly.

I am therefore honored that ASLO has seen fit to let me have a try at bringing a review section to *L&O*. I would like to share some thoughts about what papers in this venue might look like and seek to achieve, and in particular how they might differ from other *L&O* submissions. I'd also like to share how the review process initially will differ from the *L&O* standard. I welcome reader input on these important issues as well (see email address above, please). Depending on the success of this section, on future

Table 1. Review journals that cover fields well represented in ASLO. Impact factors are as reported by Journal Citation Reports (Thompson Corporation)

Journal	Publisher	Impact Factor	
		2003	2004
Annual Review of Ecology, Evolution and Systematics	Annual Reviews (Nonprofit)	6.18	9.43
Annual Review of Fluid Mechanics	Annual Reviews (Nonprofit)	5.11	6.69
Annual Review of Earth and Planetary Sciences	Annual Reviews (Nonprofit)	3.62	5.19
Oceanography and Marine Biology	CRC Press	2.65	4.12
Progress in Oceanography	Elsevier	2.37	2.43

The Limnology and Oceanography Bulletin

The American Society of Limnology and Oceanography is a membership-driven scientific society (501(c)(3)) that promotes the interests of limnology (the study of inland waters), oceanography and related aquatic science disciplines by fostering the exchange of information and furthering investigations through research and education. ASLO also strives to link knowledge in the aquatic sciences to the identification and solution of problems generated by human interactions with the environment.

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The *L&O Bulletin* publishes brief, peer-reviewed articles of broad interest to the ASLO membership. Letters to the *Bulletin* (typically responses to articles), as well as ASLO News on a quarterly basis. Information on the preparation and submission of articles and letters can be found on the ASLO web site (www.aslo.org). It is recommended that you contact the editor before preparing an article or letter.

finances of ASLO, and on the will of future membership and Boards, reviews might, or might not, warrant a journal of their own. The present plan is to work up to one or two reviews per issue before re-examining the wisdom of launching a new journal.

Criteria for publication in *L&O* are well honed: “*L&O* publishes original articles about any aspect of limnology and oceanography. The journal’s unifying theme is the understanding of aquatic ecosystems. Submissions are judged on the originality of their data, interpretations, and ideas, and on the degree to which they can be generalized beyond the particular aquatic ecosystem examined. In both your cover letter and the manuscript itself, briefly state why you believe your work to be original and how it will affect interpretation and practice in aquatic sciences. If reviewers cannot identify the basis of originality and impact, space limitations will preclude publication.”

These criteria will be applied no less enthusiastically or rigorously to reviews. A review that simply catalogues every paper that contains a particular set of keywords—but would not alter interpretation of past results or priorities for future research—will not make it over the bar. Reviews will also share disincentives common to all *L&O* submissions in terms of manuscript length and number of citations, although initially the 10-page threshold for increased charges will be somewhat relaxed for review papers. In general, however, only the most recent prior review and key subsequent papers should be cited. The calculating reader will divide Everett Fee’s number of pages increased per year of 300 by the number of issues and conclude that 50 pages per issue will be devoted to reviews. That calculation would be misguided; part of the page increase will be devoted the rising submissions of other kinds of papers, and reviews will need to compete for limited space.

Each of us has favorites of the review genre. “One” of mine comprises a pair of review papers arising from a NATO meeting in Bombannes in May of 1982. Tom Fenchel (1984) gave a very insightful review that led to the better-known review from the working group on “The role of free bacteria and bacterivory” (Azam et al. 1983). These papers shifted the focus from one of, “Who eats bacteria?” The new focus became, “Who can make a living from eating (primarily or exclusively) bacteria, and where does material supporting the grazed bacterial production come from?” The questions were not only clearly articulated, but also partly answered from available data that would not have previously been combined. And, one can argue that the basic scaffolding of important questions was provided by Pomeroy (1974), but needed hydrosol filtration theory as adapted by Fenchel and microbial production methodologies as developed by Azam et al. to reach provisional answers. Reviews often provide milestones of progress in retrospect and remove millstones of prior thinking in prospect.

The nature of review papers affords some unusual opportunities. Review authors will often have considerable associated materials, e.g., exhaustive bibliographies, extensive graphics, step-by-step mathematical derivations and other teaching materials. They will be encouraged to post these materials at <http://aslo.org/education/teaching.html> as a powerful outreach and teaching mechanism. Yearly hits at the ASLO.org website now exceed five million. ASLO hopes thereby to provide a win-win situation for authors wishing to reach a large audience and also wishing to fulfill the second of the U.S. National Science Foundation’s review criteria (broader impacts) in an easily cited, documented and eminently useful fashion, while providing a useful resource for teachers.

Several editor colleagues have expressed frustration about rare delivery of invited reviews and even rarer delivery in a timely fashion. Instead of inviting reviews, we will be soliciting suggestions and encouraging what Everett and I would call “mentored reviews.” Often the person with the best perspective to write a review does not have the time, and conversely the person who needs the review enough to spend the time does not have the perspective. We encourage people in the latter category to approach parties in the former. ASLO meetings are ideal venues for making mentor-mentee connections. In this day of online chatting and video conferencing, the parties need not be geographically proximate. As an aid, we encourage submission of, and offer to review, proposals for mentored reviews at any stage of formulation. Only one such proposal review will be provided, however, for any one combination of review topic and authors. Ideally, the mentee(s) will have already received consent from the mentor(s), and the two (or more) parties will develop the proposal. The proposal should include the following: (1) provisional title, with a fuller explanation of the material to be covered and of what will be excluded; (2) authors and their proposed roles; (3) a statement as to why

the review is both needed and timely (useful material for the introduction section of the review in any case), including citation of related, published reviews; (4) an explanation of the approach to be taken, and, (5) a statement as to the novelty or impact that might be expected from this approach. Optional proposal review will also be provided to other categories of review (e.g., submissions by sole authors). Feedback will focus on suggestions for improvement and will not substitute for review of the manuscript submission in any way. Other than the (recommended) option of having a proposal reviewed, review and editing procedures will be identical to those for other manuscripts. Review proposals as well as manuscripts should be sent to the same address as any other *L&O* manuscript.

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