

Getting Published in Interdisciplinary Environmental Journals

Introduction

A career in environmental studies and science, especially when it includes academic teaching or research, is likely to involve publishing in related journals. Often, publication is expected or strongly encouraged for successful career development. Because environmental studies and sciences encourages interdisciplinary research and collaboration, publishing will often involve writing with the style and substance appropriate to journals with this interdisciplinary perspective.

This essay, growing from our experience in environmental studies as program directors, journal managers, editorial board members, teachers and writers, offers information, advice, and encouragement about successfully preparing these publications and selecting the right journals for their submission.

A Few Fundamentals

People publish in scholarly journals for many reasons: to report on their research, to contribute to major debates in the field, to build a professional reputation (and get tenure and promotions!), and to solicit critical feedback on their work.

Although the publishing process can seem intimidating at first, you shouldn't let it discourage you. Rejections also happen—so don't let that discourage you. Editors are usually eager for content that fits the scope and purpose of their respective jour-



nals. Most see their role as helping you prepare your work for publication, and they are usually happy to help you find the right venue for it.

In deciding where to send your paper, the most important consideration is **audience**. Who will be your audience? Can you explain clearly and concisely what you want to discuss?

The hegemony of the traditional disciplines means that most scholarly journals focus on disciplinary

research; few are designed specifically for interdisciplinary research or for disciplinary research that seeks to speak to a broad, multidisciplinary audience. But some journals do aim to address a broad range of scholarship involved in environmental studies and sciences.

In general, articles published in interdisciplinary journals are likely to be fairly broad in scope, aiming to synthesize different bodies of knowledge, address big questions, or reconceptualize areas of investigation. In contrast, discipline-based journals are more likely to be interested in narrower questions—technical points of methodology, small refinements of standard theories, and other research that can be understood and evaluated without drawing on expertise in some other discipline. But even interdisciplinary journals can vary quite a lot in the kind of articles they publish.

For example, consider three articles on the Marcellus Shale, each published in a journal that is

interdisciplinary in some respect:

- **Ronald S. Balaba, Ronald B. Smart, “Total arsenic and selenium analysis in Marcellus shale, high-salinity water, and hydrofracture flowback wastewater,” *Chemosphere* 89: 1437-1442 (2011).** *Chemosphere* calls itself a “multidisciplinary” journal, since it publishes pieces from any branch of environmental science. This paper reports on a test for arsenic and selenium in wastewater from drilling operations. It is narrow and technical, and difficult for someone without training in chemistry to understand.
- **Alex K. Manda, Jamie L. Heath, Wendy A. Klein, Michael T. Griffin, Burrell E. Montz, “Evolution of multi-well pad development and influence of well pads on environmental violations and wastewater volumes in the Marcellus shale (USA),” *J Environmental Management* 142: 36-44 (2014).** The *Journal of Environmental Management* publishes papers on all aspects of management of the environment, both natural and man-made. So it publishes natural and social science research, and integrative research using a range of methodologies: “case studies, observational and theoretical analyses, the application of science, engineering and technology to questions of environmental concern or mathematical and computer modeling techniques with the aim of informing both the researcher and practitioner” (JEM Aims and Scope). This paper argues that multiple well pads may generate more environmental violations than single well pads. The authors use geospatial techniques and statistical analyses to investigate this relationship. The paper is clearly directed to environmental management professionals and policy makers

Tips on submission:

- Choose your journal carefully and submit to only one journal at a time; most journals won't consider an article under review somewhere else;
- Craft a compelling cover letter that: a. concisely summarizes your manuscript; b. explains why you think it makes an important contribution to the field; and c. explains why the journal you're submitting it to is a “good fit” for the piece;
- It will usually take at least six weeks for an article to be reviewed. Some journals have review periods of several months. It is acceptable to contact the editor after about 6 weeks to find out the status of the article.
- Articles will be received better if you follow the guidelines for citation format, page length, etc.

who have a fairly sophisticated understanding of hydraulic fracturing technology and regulation.

Some Major Interdisciplinary Environmental Journals:

Sustainability Science
 Conservation Biology
 Journal of Political Ecology
 Restoration Ecology
 Natural Resources Journal
 Journal of Transdisciplinary Environmental Studies
 Journal of Environmental Studies and Sciences
 Environmental Management
 Environmental Science and Policy
 International Journal of Environmental Studies
 International Journal of Global Environmental Issues
 (For a more comprehensive list of interdisciplinary journals, see the AESS website).



In deciding which journal to submit to, a good starting point is to focus on the journals publishing articles you find helpful in your research.

- **Eleanor Andrews, James McCarthy, “Scale, shale, and the state: political ecologies and legal geographies of shale gas development in Pennsylvania,” *J. Env Studies and Sciences* 4:7-16 (2014).** The *Journal of Environmental Studies and Sciences* reaches a broader audience than the two journals above. Accordingly, this paper is less focused on technical issues; it aims to describe “ways in which laws and the authority of the state more broadly have been changed, deployed, and invoked,..., to enable the extraction of the gas in the shale and its circulation as a viable commodity.” The paper applies a “political ecology” framework to understand the regulation of hydraulic fracturing on the Marcellus Shale. But the authors do not assume the reader knows that framework. A major goal of the paper to explain that framework and show why it’s useful for understand-

ing this case.

Choosing the right journal for your research is a critical step in the publication process. Every journal should have an “Aims and Scope” section, or something similar, that describes desirable submissions on its homepage. Study that section carefully, and also review recent issues of the journal. You might also discuss potential options with colleagues with a similar disciplinary perspective

Preparing your work for an interdisciplinary journal

Know your audience.

The most important consideration in pre-



paring your paper for an interdisciplinary journal is always to know your audience. Take the time to read recent issues of the journal you’ve chosen. Pay attention to the level of technical detail, the language used, and the literature cited. If there are a lot of articles in the journal that you could cite in your own piece, it’s a good sign that this is the audience you want to address.

Nevertheless, you may still need to reframe your research so that its importance to this audience is apparent. It’s critical to make the research question or objective clear in the introduction or abstract and to explain its significance to this audience. How is your paper advancing the scholarly discussion going on in the pages of *this* journal? Since you are writing for an interdisciplinary journal, it is important to explain how your research relates to specific environmental disciplines other than your own. If you are writing about environmental economics, for instance, how might your

research be relate to readers interested in environmental public policy, or to agricultural chemical use?

Abstracts matter. Crafting an effective abstract is critical to developing your paper for publication. The abstract should make crystal clear the aim of the paper: what the question or objective is, why it matters, and what you found. You may also want to mention the methodology employed. Resist the temptation to fill the abstract with additional information. The abstract will reflect your own clarity about what you're saying and why. If the abstract is muddled, the reader (and editor) will naturally conclude your submission is also muddled. So you should revisit the abstract frequently as the paper develops. Make sure the final abstract precisely and accurately represents the paper you are submitting.

Structuring the paper. Scientific papers have a familiar, highly-standardized structure: Introduction, Literature Review, Methods, Results, Discussions, Limitations, Future Research. It's a good structure, and many articles will fit into it quite well. But papers addressed to interdisciplinary audiences may be too complex for this structure. Your piece may be purely theoretical in nature, or it may include literary or historical analysis. You may spend more time discussing policy or pedagogical implications of your work. If your work can't be presented effectively in the standard structure, abandon that structure!

However, when you employ a nonconventional structure, it's important to make clear to the reader what each section of the paper is doing—how it

fits into the overall argument. Use subheadings to clarify the flow of your ideas. It's helpful to provide a narrative roadmap at the beginning of the paper, add subhead "road signs" throughout the paper, and repeat occasionally where the argument has been and where it's going.

Reviewing the literature. The basic aim of any literature review is to explain how your paper will contribute to an ongoing scholarly conversation. It should clearly identify a gap in the literature that you intend to fill.

Literature reviews can serve other purposes as well. Broadly speaking, they fall into two categories: synthetic and analytic. Synthetic literature reviews are more common in the humanities. They aim to bring together a broad range of literature in order to reconceive the boundaries and structure in a domain of inquiry. For example, a synthetic literature review might seek to show how a theoretical concept in geography could be brought into a discussion within urban planning in order to advance a new approach to a problem.

Analytic literature review is more common in the natural and social sciences. Narrower in scope, it focuses on the specific line of investigation to which the paper contributes. The purpose of this review is to explain the theoretical approach and to define the chief variables that will be used in your empirical study.

Readers accustomed to analytic reviews may find synthetic reviews too sprawling and unfocused; readers accustomed to synthetic reviews may find analytic reviews too narrow to situate the paper in



the broader scholarly conversation. Careful review of the articles published in a journal you may be considering should help you figure out what kind of literature reviews are favored. However, you needn't be entirely constrained by what the journal has done in the past. As a general rule, when you intend to do something new and different, you should highlight it: explain that you're departing from the expected convention, and why.

Speaking beyond your field. Writing for a multidisciplinary audience is often an exercise in translation. Your readers may not understand technical terms, they may lack critical background information, and they may be unfamiliar with your methodology and theoretical approach. The writer is faced with a number of difficult questions: How much to explain? When and where to define one's terms? How much of the paper should be devoted to theory and methods?

Once again, the key is to know your audience. Reading the journal with attention to how other authors deal with these challenges is a good place to start. But you should also get in the habit of asking readers outside your field to give you feedback on your paper. Non-experts can identify important bits of background information that need explaining, unfamiliar acronyms, and confusing jargon.

Background: You should be prepared to spend more time "putting the reader in the picture" than you would need to do for a paper published in a disciplinary journal. For example, if your research is a meta-analysis of research conducted at Long Term Ecological Research sites, you should provide some background on the Long Term Ecological Research network, so your reader understands what these are (a network of sites established by

the National Science Foundation in 1980 to conduct research that may span decades and cover large geographical areas).

Jargon: Be prepared to replace technical terms with more conversational terms. For example, consider these first two sentences from an article on coastal ecology, written for an audience of ecologists:

Structured habitats such as oyster reefs and seagrass beds support a greater diversity and abundance of fishes and invertebrates than nearby unstructured habitats. Of these structured habitats, seagrass is of primary importance in estuarine and shallow near-coastal areas for providing ecosystem services such as habitat provisioning.

From Kathryn L. Sobocinski , Robert J. Orth, Mary C. Fabrizio and Robert J. Latour, "Historical Comparison of Fish Community Structure in Lower Chesapeake Bay Seagrass Habitats," *Estuaries and Coasts* 2013.

Translated for an interdisciplinary audience, this passage might read:

Habitats such as oyster reefs and seagrass beds support a greater diversity and abundance of fish and invertebrates (mussels, crab, lobster, etc.) than nearby unstructured areas, such as mud flats. Of these structured habitats, seagrass beds are of primary importance in shallow coastal areas and estuaries for providing important ecological benefits linked to human well-being, such as habitat for commercially harvested species.

Note the translated passage removes some technical

terms, replacing “ecosystems services” with “important ecological benefits linked to human well-being.” The translation keeps “structured” and “unstructured” habitat, but provides an example of an unstructured habitat (“mud flats”). It also provides some examples of invertebrates. The term “estuarine ... areas” was replaced with the more conversational “estuaries.” Replacing technical terms with their definitions, providing examples, and using the more common form of a word are all important strategies in translating disciplinary writing for a more general audience.

Definitions. A non-expert might still have difficulty with the passage above because the two key terms—“structured habitat” and “unstructured habitat”—remain undefined. Habitat structure refers to the amount, composition and three-dimensional arrangement of physical matter (both abiotic and biotic) at a given location. That’s a bulky definition to include in the passage; it would be ideal to offer it in a footnote or endnote. Unfortunately, many journals discourage the use of footnotes and endnotes. Incorporating such definitions into the text effectively requires better-than-average composition skills. As mentioned above, finding readers beyond your field who can give you good feedback on your writing style is critical to developing these skills.

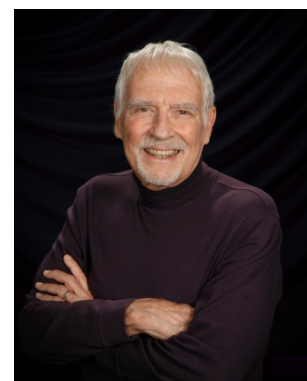
Managing technical materials. Although footnotes and endnotes are increasingly discouraged, journals are often willing to include appendices or links to websites where technical information can be provided. This is an excellent way to make available the details of your methodology or theoretical approach to interested readers, without weighing down the article itself with this information.

And Finally...

The time and patience you invest in preparing your publication carefully will greatly improve the likelihood that your article will be favorably received and competently reviewed by editors of the journal to which it is submitted. Approaching the creation of your article in this way is also likely to clarify the design and composition of your presentation as it evolves. Additionally, all this will improve your professional writing skill, facilitate the progress of your work through the editorial reviewing process, and enhance the appeal of your article to the editors and reviewers who are assessing your submission.

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