

## Scientific publication viewed from the Editor's chair

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The role of scientific editor of a major journal is crucial to the functioning of the scientific system. Editors are the entry point of manuscripts into the peer-review evaluation system. They have to be both scientists and managers, deal with authors, editorial boards and reviewers, and interface with the underlying publication process and the publishers who actually underwrite the evaluation, formatting, printing and distribution part of the system. In this talk, I will be covering a number of aspects related to this role, extracting most of my examples from my experience at the (co-)helm of the Canadian Journal of Forest Research for the past 5 years.

The review process is central to the good functioning of the "scientific system". Review by anonymous peers is so far the best among imperfect systems to ensure a certain level of quality and credibility in published material. The contrast is the un-filtered posting of material on the web, and the resulting offer of contradictory material to potential users. Different types of peer review are being used and I will discuss how some of them function. At the CJFR, we have on-going discussions on the various peer review approaches, but so far have remained faithful to the single-blind confidential approach in which the authors are known to the review committee, but not the reverse, and the review comments are not shared with the outside world.

As with all human-based systems, the review system is not perfect and cases arise where Editors must intervene. Some have to do with conflicts of interest of reviewers, plagiarism, or poor reviews. The CJFR is a produced by a not-for-profit publisher, Canadian Science Publishing, a former government agency called National Research Council Press that was spun-off four years ago. Because of this status, our "shareholders" in a sense are the scientists who produce, evaluate and consume the information. Making sure that authors are satisfied is therefore more than a simple business model, and issues must be treated while keeping this in mind. This is a delicate task that the Editor must take on.

Finally, authors are what keep the journals running, but they must learn to write in a way that enhances their capacity to get published. The rejection rate at the CJFR is of about 70%, which is probably not unusual for a scientific journal that still has a paper version. But this rate is quite country-specific, which means that scientific culture has a significant impact on the quality of science and the quality of its reporting. Editors cannot affect the quality of the science, but they provide guidance on the reporting aspect of the process. This is quite an important aspect since unreported studies are more or less a waste of resources. What authors must understand, however, is that, unlike for the review a thesis or dissertation, scientists who commit to review a manuscript for a journal are fundamentally mandated to ensure the respect of a quality-based threshold to publication. The role of the editor is to strike a balance between the level of this threshold as interpreted by reviewers and associate editors, and the interest by authors and the scientific community to see new information published.

These few elements brush but a broad picture of the multiple aspects of the editor's role within the publication process. As mostly voluntary assignments, editorships bring in the reward of a constructive contribution to the infrastructure of science.