EDITORIAL

Peer Review

ALAN H. BRUSH[1]

Whatever the reasons for doing research, the major, substantative product, a manuscript, often assumes a life of its own. The rewards and satisfaction of design, execution, and analysis of a project are axiomatic. But before the work, however brilliant, becomes "science" (i.e. a part of the permanent record), it must be published. This adds the criterion of undergoing the scrutiny of others in the field, plus checks for accuracy and expression. In other words, the manuscript is exposed to one or more steps of peer review. The variety of topics covered in contemporary ornithology and the introduction of new laboratory and field techniques, along with more thorough data analysis, have expanded the intellectual framework and added immensely to the demands placed on both author and reader. For these and other reasons, the role of referees in the publication process has become increasingly important. A thorough, thoughtful review puts a stamp of quality on a paper and acts as an aid to experts and nonexperts who might cite it subsequently. Similarly, the professional acceptance and usefulness of the journal is improved.

Peer review is a key element in editorial decision making. Even manuscripts that are ultimately rejected benefit from the process. Peer review identifies reports that are trivial, poorly designed, poorly executed, or unoriginal. The process ensures proper recognition and consideration for the work of others. One immediate benefit is that it leads to revision of the manuscript, occasionally to more observations or analysis of data, and to a consequent improvement in quality. The general effect is to improve the technical quality of the journal and of the field as a whole.

The system of external review used by *The Auk* should not be mysterious. It involves a considerable investment of resources, but seems to work. I generally send each manuscript to three reviewers. Potential reviewers are solicited by mail. If a person agrees to review, the manuscript is sent and we request a 4-week return. I try to select reviewers on the basis of their expertise, experience, previous reviews, and, often, their point of view. The written reviews are then integrated, along with additional information, in the subsequent decision. This takes time and considerable effort, but the yield is great relative to any serious delays. Sometimes a revised manuscript is sent to additional reviewers, often one that did not participate earlier or a member of the editorial board. In addition to the manuscripts' actual content, reviewers often provide comments on erroneous or poor work, redundancy, gross overstatement, or speculation. All of this is helpful to the editor and is encouraged in reviews.

The review process involves time and the effort of many people. Still, it has several benefits. First, it provides the author with a check on experimental design and the subsequent analysis of data. Reviewers point out problems of organization or clarity of expression. Referees may be aware of multiple publication of material, potential overlap with the work of others, or other ethical issues. Second, the reader benefits, as the review process helps ensure a high quality of papers. After all, the journal as a record ultimately becomes a source of authority in the field. The choice of topics and their treatment will influence the direction a field might take. Readers look to the journal as a place for the presentation of innovative ideas, useful records, and lively discussion of the current issues in the field.

[1] Department of Physiology and Neurobiology, University of Connecticut, Storrs, Connecticut 06268 USA.