



Ethical Guidelines for Publication of Fisheries Research

Publications Overview Committee, American Fisheries Society

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BACKGROUND

In 2000, the Governing Board of the American Fisheries Society (AFS) approved the first Guidelines for Authorship (GFA) in AFS publications, developed by the AFS Publications Overview Committee (POC) chaired by Mary Fabrizio. This version of the GFA document provided guidance for fisheries science publications for nearly 2 decades. The 2015 AFS President Donna Parish charged the POC to revise the document to improve the quality of AFS publications. With guidance from Mary Fabrizio and the AFS staff, the POC and chair Emmanuel Frimpong revised, updated, and clarified the GFA document.

This revised fisheries research publication document provides guidance for all persons involved in the publication process including authors, reviewers, and editors. This version of the GFA document is not a guide for style or content in AFS publications, but rather provides substantial changes including clarification on what constitutes authorship versus acknowledgment, determining authorship order, and including deceased authors. This version was adopted by the AFS Governing Board, and is presented *verbatim* as it appears in the AFS Procedures Manual.

ETHICAL GUIDELINES FOR PUBLICATION OF FISHERIES RESEARCH

Preface

At the Annual Meeting of the American Fisheries Society in St. Louis, Missouri, in 2000 the Governing Board approved the first Guidelines for Authorship developed by the Publications Overview Committee (POC) under the leadership of Mary Fabrizio. The stated purpose was to “assist AFS

members in determining authorship of scholarly documents intended for presentation, publication, or other dissemination. Such documents include manuscripts intended for publication in the peer-reviewed literature, reports, and visual aids used to illustrate oral presentations at professional meetings.” These standards focused entirely on what kinds of activities do or do not qualify one for authorship, the order of authors, and acknowledgment of assistance that did not rise to the level of authorship. This was a necessary “first step” in establishing minimum standards for quality scholarship in American Fisheries Society journals.

Despite being a major step forward, the original guidelines for authorship did not address other important issues, such as clear statements against unscholarly practices such as plagiarism. It also did not address more challenging and nuanced decisions, such as when and if to include deceased persons as authors. There is no clear statement on other ethical matters, such as dual publication and use of living animals as research subjects. Finally, the document focused entirely on the role of authors in the publication process. Our society’s publications process relies on volunteers as editors, associate editors, and reviewers, each of which has a critical role to play in the integrity of the overall publications process. Each acts as a “check and balance” on one another throughout the publication process.

This revision of the American Fisheries Society Guidelines for Publication of Fisheries Research seeks to re-affirm the principles set forth in the original document and augment it with additional guidelines on roles and responsibilities not covered in the original document. Some of the material is taken verbatim or with minimal wordsmithing from the original document, and the authors of this document gratefully

acknowledge the work of our predecessors. It is organized in sections for each step in the publication process: editors and associate editors; authors; and reviewers. It also includes principles that apply in general to publications regardless of role. The structure and some of the content of this document is reprinted in part with permission from “Ethical Guidelines to Publication of Chemical Research,” Copyright 1985, 1989, 1995, 2001, 2006, 2010, 2012, 2015 American Chemical Society (ACS) and with the expressed permission of ACS. The members of the POC are grateful for the generosity of our colleagues at ACS for this assistance.

Roles and Guiding Principles

Authors

Authorship confers credit to the individuals involved in a study. With credit comes responsibility. Thus, every coauthor must contribute meaningfully to the overall success of the research conducted and its communication. Every author should strive to ensure their research is presented accurately, succinctly, and completely with sufficient information to permit scientists with similar training and ability and with access to the same or similar data to reproduce the methods and hence, potentially, the results. Every author should be willing to accept and address criticisms of the manuscript by readers, reviewers, and editors. Anyone who does not meet these criteria has not earned authorship.

In general terms, the stages of publication are: proposing the research (conception of the question or hypotheses, development of study objectives, experimental, and statistical design), data collection, data analysis and interpretation, and preparing the manuscript (writing, reviewing, and editing). Funding, while absolutely necessary for conducting research, is not part of the publication process, hence securing of funding or administering funding do not qualify one for authorship. Each author should make two or more significant contributions. Persons whose sole contribution to the investigation consists of conducting routine laboratory analyses or data collection (i.e., performing technical tasks using prescribed standard operating procedures; preparation of graphics) have not earned authorship; such work warrants an acknowledgment. Exceptions may occur when considering the contribution of an individual who has developed a data set over exceptionally long periods of time (for example, such individuals have a unique perspective on their data that may be necessary for proper interpretation). Similarly, when the manuscript is prepared an author is expected to make substantive comments, not simply editing grammar or punctuation. Examples describing the level of conceptual involvement or technical participation required for authors are given in Day (1998; Chapter 5 in “How to Write and Publish a Scientific Paper, 5th edition. Oryx Press).

Determining the number and sequence of names on the title page of a paper is an ethical decision involving fairness and trust: fairness in properly representing each person's contribution to the study, and trust in accurately portraying the responsibility of each author for all or part of the work. Both are compromised when colleagues whose contributions merit recognition are overlooked (not giving credit where credit is due) or when colleagues whose contributions are minor are granted authorship status (gratuitous authorship). Ultimately, authorship and the ordering of names in a byline is the *joint decision* of the research team members. Although discussion of authorship and ordering of the byline

with potential coauthors before the investigation begins is a valuable step, roles and responsibilities may change, requiring re-consideration of order of authorship or even if authorship has been earned (i.e., if a previously identified ‘author’ fails to participate in their anticipated role). Before, during, and after writing begins, each author must reassess their role and contribution to ensure the final suite of authors fairly and accurately represents contributions. When submitting a manuscript for publication every author must consent to the submission of the manuscript and affirm they are willing to take responsibility for the work.

Occasionally researchers die unexpectedly or become mentally disabled during the conduct of research and prior to submission of manuscripts. In such cases, such individuals will not be able to consent to submission, which is a necessary step for earning authorship. Furthermore, deceased and mentally disabled persons cannot be held accountable for research after it is published, which is a critical element of the research and publication process at its coarsest scale, and cannot benefit from credit for the work in terms of recognition. For these reasons, the American Fisheries Society discourages inclusion of individuals as authors when they died or became mentally disabled *prior to submission* of the manuscript. In most cases, deceased or mentally disabled persons who contributed materially to the conduct of research are to be acknowledged when submission occurs prior to death. AFS does not preclude inclusion of deceased authors when death occurred after submission.

Although all of the principles and guidelines presented here are intended to apply specifically to AFS journals, they can be viewed as broadly applicable to publication in the fisheries literature as a whole. They can also be viewed as applying to publication for non-professional audiences. In many cases, the language used to communicate to a lay audience differs, but the core principles of quality and integrity apply regardless of publication medium.

Editors and associate editors

The American Fisheries Society uses two different structures for its five journals: a three-tiered Editor-in-Chief, Co-editors, and Associate Editors for three of its journals; and Co-editors and Associate Editors/Subject Editors for two journals. Editors-in-Chief, Editors, Associate Editors, and Subject Editors have ultimate responsibility for the content of American Fisheries Society journals. The role of AFS Editors-in-Chief and Editors is primarily strategic; it includes assessing the general suitability of a manuscript for the journal to which it is submitted (i.e., is the subject matter of the manuscript consistent with the journal's theme) and making the final decision on publication (i.e., is the manuscript scientifically and technically sound). Associate Editors and Subject Editors assist editors by providing expert opinion regarding general suitability of manuscripts. Their primary responsibility is recruiting and assigning reviewers and providing editors with a judgement on the suitability of a manuscript for publication. Both of these roles are critical to the integrity of the review process and to the quality of manuscripts published in AFS journals.

Reviewers

Reviewers are frequently, but not necessarily, American Fisheries Society members. Reviewers are frequently authors of published works who have particular expertise and

can evaluate the scientific merit of a submitted manuscript. Publication of AFS journals would not be possible without high-quality reviews. When invited to review, it is the responsibility of the reviewer to affirm she or he is qualified to complete the review and can do so in the time frame specified by the associate editor. Because of the vital role of reviews in the scientific process, it is expected that American Fisheries Society members who are authors will also review manuscripts.

Authors, editors/associate editors, and reviewers

Timely publication of fisheries research is necessary to advancing our science, to management and conservation of fish and fisheries resources, and to the education of the public and future fisheries professionals. Delays in this process materially and negatively affect all of these outcomes. Actions by every person in every role in the publication process affect the timeliness of publications in American Fisheries Society journals. Delays in assigning reviewers, completing and submitting reviews, processing and collating reviewer comments, and responding to reviews increase time to publication; cumulative delays can reach into several weeks or even months. Every participant in the publication process must strive to ensure timely action.

Specific Guidelines

Authors

Authors must balance the competing needs to communicate relevant results in a timely manner with that of producing a comprehensive treatment of their research. American Fisheries Society discourages the “minimum publishable unit” approach and favors reporting results from a complete research project.

Authors are encouraged to assist editors and associate editors by recommending qualified reviewers for their submitted manuscripts. Authors may also request to exclude potential reviewers, for example, if they have already reviewed the manuscript or if there is a known conflict of interest). Authors should be aware that AFS journal editors are not obliged to exclude non-preferred reviewers.

Federal agencies, many of whose employees are authors of AFS publications, now require data sets to be published prior to or concurrent with publication of research papers. As of this edition of American Fisheries Society Guidelines for Publication, data for publications authored or coauthored by Federal employees will be publicly available. Non-federal authors who are not required to publish data sets are encouraged to make every effort to make data available to others when it is requested for scientific purposes.

Authors should cite publications that have been influential in any stage of the reported work (e.g., conception design, interpretation) and that will guide the reader quickly to research that is essential for understanding their research. Citations of works that readers cannot easily access (e.g., grey literature reports, personal communications) should be minimized. In the case of personal communications, records of email, phone calls, or other forms of communication must be retained and made available if requested. Authors are encouraged to cite the original work rather than a paper that references the original work. Doing so represents the highest level of scholarship, reduces previous citation errors, and avoids incorrect attributions.

Whenever fishes are used in experimentation or whenever fishes are captured alive during field work, authors will

follow all applicable animal care and use standards and report the Institutional Animal Care and Use Compliance number, where applicable. During manuscript submission, authors must confirm that all of their research meets the ethical guidelines and legal requirements of the country in which it was performed. The American Fisheries Society has developed the document “Guidelines for the Use of Fishes in Research,” which addresses both field and laboratory research with fish. A free version of this document is available for viewing and/or downloading at <http://fisheries.org/policy-media/science-guidelines/guidelines-for-the-use-of-fishes-in-research/>.

Likewise, for human dimensions research, ethical guidelines for the use of human subjects in research will be followed and appropriate approvals must be reported from an Institutional Review Board or Institutional Biosafety Committee within the manuscript or acknowledgments. If hazardous chemicals are used (e.g., rotenone), authors will disclose safety measures taken during the research. Authors are expected to follow all local, provincial/state, and federal guidelines for disposal of chemicals.

Submission of manuscripts describing the same or very similar research to more than one journal simultaneously (dual publication) is prohibited (see “Dual Publication of Scientific Information” in *Transactions of the American Fisheries Society* 110:573–574, 1981). If there is the potential for a reader to interpret a manuscript as a dual publication, the editor should be made aware.

All authors must reveal to the editor(s) and within the manuscript all potential conflicts of interest, professionally or financially relevant to the research being reported. If there are no conflicts of interest this must be stated explicitly.

Plagiarism of one’s own (a form of dual publication) or others’ work is prohibited in American Fisheries Society journals. AFS follows the U.S. National Science Foundation definition of plagiarism as “the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit” (45 Code of Federal Regulations, Section 689.1). The American Fisheries Society also uses the “reasonable person” standard when deciding whether a submission constitutes plagiarism/duplicate publication. Material quoted verbatim must be placed in quotation marks and include a page reference. All submissions to AFS journals are electronically screened for plagiarism. When submitting a paper, one stipulates that, except where explicitly indicated otherwise, all of the statements, data, and other elements reflect one’s own work and not that of others. All allusions to the work of others should be properly cited. Authors are also cautioned not to repeat long passages from their own previous publications. Failure to follow these requirements may result in rejection of the paper and, in extreme cases, restrictions on publishing in a journal.

Editors and associate editors

The content of manuscripts submitted for publication must be kept confidential throughout the review process to all persons external to the review process.

Editors and associate editors must afford all authors an unbiased review of their work without regard to characters or qualities unrelated to the work (age, ethnicity, gender identity, institutional affiliation, nationality, race, religion or lack thereof, seniority).

Editors and associate editors must make a good-faith effort to recruit competent reviewers for each and every manuscript.

They are not obliged to include reviewers recommended by authors, but must give them the same due consideration as any other potential reviewer. Editors are discouraged from inviting reviewers that authors requested not be considered, unless there is a compelling reason to do so.

Editors and associate editors are responsible for ensuring a timely review process.

Decisions to accept or reject a manuscript must be made with full and careful consideration of all of the manuscript's strengths and weaknesses. Editors may reject manuscripts that are poorly prepared (i.e., not ready for review) or that lack in substance (e.g., improper statistical tests, unjustified conclusions, plagiarism). In all cases editors and associate editors must provide their reasoning for decisions. Editors must not make editorial comments anonymously and must be identified in all correspondence regarding reviews and decisions to accept/reject.

Editors and associate editors must avoid any and all potential conflicts of interest in the conduct of their duties. This includes, but is not limited to, the following: not serving as arbiters of their own work; not serving as arbiters of work of recent graduates if the manuscript is based on work that they supervised; and not serving as an arbiter if there is financial interest involved.

Reviewers

Persons invited to review must never agree to review a manuscript if they believe they are not qualified to review. Qualified in this context does not mean one is able to comment on *all* aspects of a manuscript. Associate editors frequently assign reviewers with different areas of expertise to assess particular aspects of a manuscript (e.g., statistical design; ecology; management perspective), and no one reviewer need possess expertise in all areas. Whenever a reviewer believes he or she is unqualified to review, the invitee should respond promptly so that another reviewer can be invited.

Persons invited to review must decline to review if they have a conflict of interest. Such conflicts may be personal (i.e., personal relationship with an author of the manuscript; financial interest in a particular outcome) or professional (e.g., supervising the work of the author; involved in the determination of funding for the research reported in the manuscript).

Reviewers must provide a thorough, complete, and prompt review of all aspects of the work they are qualified to review. Failure to consider relevant literature should be noted (but reviewers should be careful to not recommend citations of their own research disproportionately). Comments should be thoughtful and fully justified to assist the associate editor and editor in judging the merits of the manuscript. Comments provided by reviewers must be respectful, focus on the content and substance of the manuscript, and must never be personal. Reviewers must strive to complete reviews in the time frame requested by the associate editor.

Reviewers must not disclose the content of a manuscript under review to anyone external to the review process.

Reviewers of American Fisheries Society manuscripts are anonymous by default, but reviewers may identify themselves by signing their review. The decision to disclose identity is at the discretion of the reviewer. 