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Science and Technology

PD-04-101 Policy on Document Preparation and Clearance

Guidance and Procedures for the Management and Operations of NMFS Scientific and Technical Publication Series

NOTICE: This publication is available at: <https://www.fisheries.noaa.gov/national/laws-and-policies/policy-directive-system>

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SUMMARY OF REVISIONS:

This revised document replaces National Marine Fisheries Service Policy Directive 04-101-01, NMFS Policies on Scientific & Technical Publications, previously renewed in March 2013. The revisions to this document were largely editorial with substantial rewording, rearranging, and re-ordering of text. Substantive edits include the following changes: The document no longer directs use of publishing technology and media that are now obsolete, or mandates publishing practices that ended with the advent of digital publication. The title has been reworded. The former section titled **Background and Purpose** has been replaced by two sections: **Introduction** and **Objective** (page 2). The **Best Paper Awards** section has been removed. The following new parts have been added to the **Guidance** section of the document: **Terms** describes nomenclature common to scientific publishing (pages 5–6); **Definitions** describes different types of reviews and edits conducted on documents before publication (pages 6–8); **Publication Positions** describes the duties that each editorial function performs (pages 8–9); **NMFS Scientific Publications** describes the NOAA-authorized publication series and the purpose of each one (pages 9–11); and **Regulatory Authorities and their Requirements on Publishing** lists the Federal regulations, administrative orders, and authorities pertinent to NMFS publications (pages 16–19). (SPO, November 2021)

Signed



3/22/2022

Name

Date

Title

I. Introduction

NOAA’s National Marine Fisheries Service (NMFS) and its predecessor organizations have conducted research activities on living marine resources of interest to the United States for 150 years. Beginning with the first annual scientific report (Commissioner’s Report) for the year 1871, the agency has continuously published information and research findings of the highest quality.

The final step in scientific research is to publish and distribute the results and findings as widely as possible. Without publication, the research is unfinished. This procedure document provides NMFS with the guidance needed to ensure the proper production of its scientific publications.

II. Objective

This document establishes policy guidelines to ensure that NMFS scientific publications are produced following the highest standards for scientific and editorial quality, to ensure that NMFS fulfills its mandate to make the results of its scientific investigations available in a timely manner, and to ensure that these publications are distributed effectively and can be accessed readily.

This procedure serves as a reference guide and primer describing the process of producing NMFS’s scientific publications, including the persons involved in the process and those in management overseeing the publication effort. This procedure explains the staff positions involved, the duties of each position, and the specific requirements that NOAA mandates for each publication series that NMFS produces. Furthermore, the procedure explains and justifies the efforts that go into evaluating the science, editing the language, and enhancing the presentation of the scientific publications that NMFS publishes, as these efforts ensure that NOAA’s standards are met.

III. Guidance

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1. OVERVIEW

This document defines the terminology used within it; lists the categories of scientific publication series that NMFS produces; discusses the involvement of NMFS Science Centers, Regional Offices, and National Program Offices with these series; examines quality assurance; explains the publishing privileges extended to NMFS personnel and the responsibilities that come with those privileges; describes the ethics and oversight pertinent to NMFS publishing offices, authors, and organizations; and reviews distribution and archiving of the publications in print and digital media.

The publication process is covered from submission of a completed manuscript through the subsequent steps of review, editing, and final release as an official publication in one of NMFS's scientific publication series. The scope of authority is detailed for the editorial positions, offices, boards, and committees involved in these series.

2. TERMS

Certain terms in scientific publishing have subtle but distinct differences. Understanding these differences is important as they are integral to the workflow of the publication process and the personnel involved as well as to the nature of the differences between the NMFS scientific publication series.

Article Another name for a **scientific paper**.

Citation A **reference**, usually one that is considered to be **literature**.

Editorially Controlled The acceptance policy of a publication, such as a quarterly scientific journal, that has a scientific editor who evaluates each manuscript that is submitted for publication and accepts or declines it on the basis of its merits.

Footnoted Reference A publication, or unpublished information, that has not been reviewed sufficiently to meet the level of scientific **literature**. Such references are not included in the literature-cited section of a report; rather, they are listed in a footnote on the bottom of the page on which they are mentioned.

Gray Literature A report that has been released in a publication series or format outside that of established peer-reviewed **literature**; the degree of review that gray literature undergoes varies greatly and often does not meet the standards of **literature**.

Literature Professional-level scientific publications whose content has passed the scrutiny of a thorough, critical **peer review**, validating the integrity and authoritativeness of the content.

Literature-Cited Section The section of a **report** that lists the literature-grade publications that were cited as **references** within the report.

Manuscript A written **report** that has not been published.

Paper, Scientific Paper A **manuscript** that has been published in a scientific journal.

Peer Review The process by which experts in the authors' field of research (considered to be the authors' peers) conduct a thorough, critical evaluation of the scientific content of a manuscript. If the work passes the review by these experts, it is considered worthy of being published and referenced as **literature**. A review by non-experts, or a light review by peers, carries insufficient weight to validate the work as authoritative; if released as such, the work is categorized as **gray literature**.

Referee A person performing a peer review at a scientific journal; journals employing this level of review are called refereed publications.

Reference A source of information in a manuscript that is presented as an established fact. If the reference is from a **literature**-grade source, it is included in the literature-cited section of the report. If the reference is from **gray literature** or any other source of information that does not meet the standards of literature, it is placed in a footnote at the bottom of the page.

Report Can refer to a document at any stage of development, from a **manuscript** draft to a published **paper**, that is a written account of scientific research.

Scientific Edit, Scientific Review The process of evaluating the scientific content of a manuscript. Generally, the term is taken to mean an evaluation done at the **peer review** level.

3. DEFINITIONS

3.1 Scientific Editing and Peer Review

Scientific editing is the process of evaluating the content of a manuscript to determine whether it is suitable for publication in its current state, suitable only after revisions, or unsuitable for publication in all cases. The evaluation assesses if the following requirements are met:

- The study's goals are stated clearly.
- The study's hypothesis makes sense.
- The research was well organized and conducted properly.
- The study's methods resulted in reasonable, accurate results.
- The conclusions are supported by, and follow logically from, the results.
- The conclusions answer the research questions originally posed.
- The paper adds knowledge and value to the field of study.

NMFS conducts its scientific editing by using two levels of peer review: internal and external.

3.1.1 Internal Peer Review This review is conducted by colleagues of NMFS authors who are experts in the authors' field of study. The critique may not always employ formal procedures like the external peer review of a scientific journal, but is still very thorough and detailed; as such, the manuscripts that pass are considered worthy of being submitted to a scientific journal for publication as literature.

NMFS produces one publication series at this level of review that is considered citable as scientific literature without further review: the NOAA Technical Memorandum NMFS series.

3.1.2 External Peer Review This review is conducted by experts chosen by the editors of NMFS journals and publication series. These reviewers work outside NMFS, but NMFS employees are not excluded from this role if their knowledge and objectivity make them a logical and proper choice. These reviewers are chosen for their proven authority in their field of expertise, and conduct a rigorous review using formal procedures to ensure that the finished manuscripts meet the highest standards of scientific integrity.

NMFS produces three publication series that receive this level of review: the quarterly journals *Fishery Bulletin* and *Marine Fisheries Review* and the NOAA Professional Paper NMFS series.

3.2 Policy Review

Three types of review ensure that all NMFS and NOAA policy issues are addressed properly. NMFS Science Centers, Regional Offices, and Headquarters Program Offices conduct these evaluations on each manuscript prior to release for publication.

3.2.1 Information Quality Act Review The manuscript is reviewed for compliance with the Information Quality Act (IQA) requirements to ensure that the data and information meet quality standards for utility, objectivity, and integrity.

The manuscript is reviewed for presence of Influential Scientific Information (ISI) or a Highly Influential Scientific Assessment (HISA). If the manuscript contains either, the additional peer-review requirements and documentation mandated by the OMB IQA Peer Review Bulletin must be met and the appropriate notifications made.

3.2.2 Policy and Disclaimer Review The manuscript is reviewed for findings or statements that have policy implications relevant to NMFS Science Centers, Regional Offices, Headquarters Offices, or to NOAA. Factual statements relating to legal mandates or statutes are reviewed and the need for disclaimers is assessed. If the review finds statements that are factually incorrect with respect to legal mandates or statutes, NMFS authorities are consulted. Personal opinions of the authors are reviewed to be sure that they are noted as such by an appropriate disclaimer.

3.2.3 High-Profile or Controversial Information Review The manuscript is reviewed for information that is likely to be considered high-profile or controversial in nature so that appropriate notifications to NMFS and NOAA leadership are completed prior to publication.

3.3 Technical and Copy Editing

Technical and copy editing of the language in a report is essential for proper and accurate communication of the research and the scientific processes that it employed, and it provides a professional, high-quality appearance to the work. Poor writing and uncorrected errors lower reader confidence in the integrity of the research.

Technical editing and copy editing ensure that the important goals of comprehension and integrity are met, and these types of editing are essential duties at all professional and academic publishing houses. NOAA Administrative Order (NAO) 201-32G (see 10.1.5 below) covers scientific and technical publications, and the bulleted lists below (taken directly from the Order) define the attributes of these tasks as they are to be applied to NMFS publications:

3.3.1 Technical Editing Technical editing prepares a manuscript for publication by ensuring that the following principles are followed:

- it says what it is designed to say;
- there is a logical arrangement of parts;
- the level of concepts, expression, and vocabulary is appropriate for the audience to which the written material is directed;
- the conclusions drawn are valid and supportable by reference to the facts presented; and
- statements made, or opinions expressed, are in accordance with agency policy.

3.3.2 Copy Editing Copy editing prepares a manuscript for publication by performing the following actions:

- adapting a manuscript's style, e.g., grammar, abbreviations, spelling, punctuation, manner of presentation, and formatting to the requirements of the medium in which it is to appear;
- ensuring that material to be published is suitable in terms of coverage, balance, method of expression, and presentation; and
- planning the final publication in terms of appearance, format, use of illustrations, and color in relation to the purpose for which the publication was intended.

4. PUBLICATION POSITIONS

The positions conducting the main functions in publishing scientific documents, along with their duties, are described below.

4.1 Scientific Editor

A scientific editor works for a scientific journal or equivalent publication, evaluating submitted manuscripts as well as peer review comments and manuscript revisions. The scientific editor is responsible for ultimately accepting or declining the manuscripts for publication.

4.2 Editorial Board

An editorial board, sometimes called an advisory board, comprises experts that the scientific editor has assembled for advice and support in the peer review process and other editorial matters.

4.3 Reviewer

A reviewer, also called a referee, evaluates a manuscript and offers a peer review critique that explains what, if anything, needs revision in order for the manuscript to be worthy of publication.

4.4 Managing Editor

A managing editor oversees and controls the production and publishing of a journal or publication series from receipt of accepted manuscripts through technical and copy editing, page layout, printing, and distribution. Often, the person in this position does the technical and copy editing as well. NAO 201-32G includes all these functions under the single term “editorial processing.”

4.5 Technical Editor

A technical editor performs the editing requirements (for language clarity and logic, etc.,) defined in 3.2.1 (above) and at NMFS usually performs copy edits on the manuscript as well.

4.6 Copy Editor

A copy editor performs the editing requirements (for grammar and style consistency, etc.) defined in 3.2.2 (above).

5. NMFS SCIENTIFIC PUBLICATIONS

NMFS produces scientific publications as the final step in its research programs, and these publications fit within the two general categories that are authorized by NAO 201-32G: the NOAA Formal Series and the NOAA Informal Series.

The NOAA Formal Series publications are editorially controlled, such that a scientific editor evaluates each submitted manuscript and decides whether or not to publish it on the basis of its merits, as is done in a scientific journal.

The NOAA Informal Series publications do not have a scientific editor accepting or declining them; rather, these works are published on the basis of approval by the authors’ superiors.

5.1 NOAA Formal Series

Three NMFS publication series are produced in the NOAA Formal Series: the quarterly journals *Fishery Bulletin* and *Marine Fisheries Review* and the NOAA Professional Paper NMFS series.

These NMFS publications are well regarded worldwide because of their high quality, and that is due to their employing the attributes common to all professional-level scholarly publications: a formal, external peer review of the science to ensure that the research process was sound and that the conclusions drawn were reasonable and accurate; a technical edit to ensure that the science is conveyed clearly and accurately; a copy edit to verify that the text and tables read well and are accurate for grammar, punctuation, and other literary conventions; effective graphics that explain concepts and data clearly without distraction; and a purposeful layout that assists the reader in moving between text, tables, and figures.

5.1.1 *Fishery Bulletin* The quarterly journal *Fishery Bulletin* is one of the oldest and finest marine fisheries science journals in the world. It is the U.S. counterpart to other highly regarded international government-sponsored publications in that field. It publishes original research and interpretative articles in all scientific fields that bear on marine fisheries, protected species, and ecosystem science. NMFS authors are encouraged to use this journal as their principal publication outlet for original research findings.

5.1.2 *Marine Fisheries Review* The quarterly journal *Marine Fisheries Review* publishes review articles, ongoing research reports, and technical notes on fisheries science, engineering, economics, and history; commercial and recreational fisheries; protected species studies; and more. Emphasis, however, is placed on in-depth review articles and practical or applied aspects of marine fisheries rather than basic scientific research.

5.1.3 NOAA Professional Paper NMFS The NOAA Professional Paper NMFS series provides a flexible outlet for publishing a variety of high quality manuscripts that, owing to length or other reasons, are inappropriate for *Fishery Bulletin*, such as taxonomic keys, species synopses, and flora and fauna studies. The publications in this series are equal in quality to *Fishery Bulletin* articles and undergo the same rigorous peer-review process. The series is not used for annotated bibliographies, lengthy data sets, or computer programs; such materials may be more appropriately published in one of the outlets of the NOAA Informal Series.

5.2 NOAA Informal Series

NMFS publications in this category are sound scientific documents, but without formal, external peer review they fall below the classification of those in the NOAA Formal Series. Some of the NOAA Informal Series publications receive technical and copy

editing, but most do not. All NOAA Informal Series publications should be numbered in their respective subseries by their issuing organization.

5.2.1 NOAA Technical Memorandum NMFS The NOAA Technical Memorandum NMFS series produced by NMFS Science Centers, Regional Offices, and National Program Offices is used for publications that do not fit into the scope of research or review articles in scientific journals and for which the process and results of a formal, external peer review are not needed and may not be of use or benefit to the publication. Examples are summary reports of national or regional programs or resource assessments, strategic plans for national or regional surveys and research, synthesis reports for important species or habitats, and compilations of national or regional economic studies.

Technical Memoranda receive a sufficiently thorough internal peer review at the colleague level to warrant being cited as scientific literature (see 3.1.2 above). For this reason, the series should not be used if the authors anticipate later publication in a formally peer-reviewed journal or another series that is classified a scientific literature; instead, an outlet like the Processed Report series or Administrative Report series should be used (see 5.2.2 below).

Unlike some of the publications within the NOAA Informal Series, Technical Memoranda receive technical and copy editing to ensure that they convey complex information effectively and present a polished professional appearance. Technical Memoranda are published as a complete and formal document with front and back covers and a title page.

5.2.2 Technical Service Publications Technical Service Publications produced by NMFS Science Centers, Regional Offices, and National Program Offices include such series as Center Reference Documents; Processed Reports; Administrative Reports; Division Reports; Working Papers; Data Reports; Cruise Reports; Resource Survey Reports; and Monthly, Quarterly, and Annual Reports.

These publications are used for a variety of purposes; generally, though, they contain information that is preliminary (such as work still in progress) or needs to be released quickly. A significant aspect of survey or collection efforts reported in these publications is that they typically have less analysis of the data than do comparable publications in the NOAA Formal Series and the NOAA Technical Memorandum NMFS series.

Technical Service Publications are of a nature that does not warrant or benefit from peer review, so they receive only the standard internal assessments: an Information Quality Act review, a policy and disclaimer review, and a high profile or controversial information review. Additionally, these publications might not receive technical or copy editing. Without peer review, publications in these series are not considered scientific literature and should not be cited as such when referenced (they should be footnoted) nor

included in the literature-cited section of any publication that uses them as a reference. In time, these documents may be developed further by the authors and submitted to formal publication series where, with scrutiny and reviews from peers or colleagues, they may become published as citable literature.

5.2.3 Contract and Grant Reports These reports emanate from work sponsored by NOAA and NMFS contracts and grants, and if they are to be disseminated they receive the same internal assessments from the Information Quality Act review as do documents in the various Technical Service Publication series (see 5.22 above). Individual contract and grant reports, if warranted, may be published in other NMFS series with more stringent levels of review.

6. SCIENTIFIC PUBLISHING AUTHORITIES AND POSITIONS

NMFS has several organizations, offices, and positions devoted to scientific publishing. Their general duties are described here.

6.1 Publications Advisory Committee

The NOAA Assistant Administrator for Fisheries established the NMFS Publications Advisory Committee (PAC) in January 1981, which succeeded the original NMFS Publications Policy Review Board.

6.1.1 Membership The membership of the PAC includes at least one representative from each of the six regional NMFS Science Centers (usually a former *Fishery Bulletin* Scientific Editor), the current *Fishery Bulletin* Scientific Editor, and the *Marine Fisheries Review* Scientific Editor. The PAC is chaired by a staff member from the NMFS Office of Science and Technology. The NMFS Scientific Publications Office (SPO) Chief acts as Executive Secretary of the PAC and coordinates PAC communications and meetings, which are convened by the PAC Chairperson. Should a vacancy occur in Science Center representation, the Science Center's Director will select another representative.

6.1.2 Duties The PAC reviews policies for NMFS scientific and technical publication series and makes recommendations on these series to the NOAA Assistant Administrator for Fisheries via the PAC Chairperson. The PAC reviews and makes recommendations for the establishment or termination of NMFS publication series and for the budget, staffing, space, and operational needs of the SPO and the *Fishery Bulletin* Scientific Editor. The PAC also performs limited editorial oversight as specified in 9.1 (below).

6.2 Scientific Editors

The position of Scientific Editor for *Fishery Bulletin* and the NOAA Professional Paper NMFS series is filled by a senior scientist affiliated with and co-located within a NMFS

Science Center. The Scientific Editor, chosen by the Center Director, serves a term of at least 3 years. The position rotates from Center to Center, starting with the new fiscal year, in the order of Northeast, Southeast, Southwest, Alaska, Northwest, and Pacific Islands. If the position becomes vacant during the term, the Center Director will name a replacement to complete the tenure cycle. The outgoing Scientific Editor will provide assistance to the incoming Scientific Editor to achieve a smooth editorial transition.

The Scientific Editor of *Marine Fisheries Review* is an SPO staff member. The position does not rotate to other offices or have a term limit.

6.2.1 Editorial Autonomy NMFS Scientific Editors have the autonomy expected of and required by that position in any formal scientific publication. The Scientific Editors' decisions are final and are not subject to being overruled by the agency or any Federal entity, except as may be required by law. Issues or allegations of professional misconduct, however, are reviewed and adjudicated by the PAC as described in 9.1 (below).

6.2.2 Editorial Board The *Fishery Bulletin* Scientific Editor is responsible for appointing an Editorial Board to advise in the formal peer review process and on other editorial matters for *Fishery Bulletin* and the NOAA Professional Paper NMFS series. Membership on the Editorial Board is not restricted to Federal employees, and its size and composition are at the discretion of the Scientific Editor.

6.2.3 Peer Review The *Fishery Bulletin* Scientific Editor is responsible for having formal peer review evaluation conducted on the manuscripts that are received and either accepting or declining them for publication in *Fishery Bulletin* and the NOAA Professional Paper NMFS series.

6.2.4 Staffing The *Fishery Bulletin* Scientific Editor is assisted by an Associate Editor provided by the NMFS Office of Science and Technology. Any necessary secretarial or administrative support is arranged through the Scientific Editor's Science Center.

6.2.5 Office Funding Funding for the *Fishery Bulletin* Scientific Editor's Office is shared with NMFS Headquarters through the Office of Science and Technology. The Scientific Editor's salary, work space, equipment, and supplies are provided by the Science Center.

6.3 Scientific Publications Office

The NMFS Scientific Publications Office (SPO) is responsible for publishing *Fishery Bulletin*, *Marine Fisheries Review*, the NOAA Professional Paper NMFS series, and the NOAA Technical Memorandum NMFS F/SPO subseries. The SPO is responsible for providing assistance as needed with the publication of other NOAA Technical Memorandum

NMFS subseries from National Program Offices.

Manuscripts approved by the respective Scientific Editors for publication in *Fishery Bulletin*, *Marine Fisheries Review*, and the NOAA Professional Paper NMFS series undergo a technical and copy edit by the Managing Editor of each series, who then oversees page layout and graphic quality of figures and before arranging for printing, binding, and distribution of paper copies and uploading of digital copies.

Manuscripts for the NOAA Technical Memorandum NMFS F/SPO subseries arrive at the SPO in page layout form after having already undergone internal peer review as well as technical and copy edits. The SPO Managing Editor of this subseries ensures that all parts of the document are present and in proper form and then generates a cover and title page before arranging for printing, binding, and distribution of printed and digital copies. The same process is done for various NOAA Technical Memorandum NMFS subseries that the SPO helps publish for National Program Offices.

The special Technical Memoranda that the SPO publishes in the NOAA Technical Memorandum NMFS F/SPO series also arrive having undergone internal peer review but are still in manuscript form. They receive technical and copy edits from an SPO Managing Editor who also oversees publication design and layout before arranging for printing, binding, and distribution of paper and digital copies. Additionally, these special Technical Memoranda have a higher presentation quality and are usually printed in full color.

Administratively, the SPO establishes publication specifications for all the series that it publishes; coordinates and reviews printing contracts (which by law are handled by the Government Publishing Office); and monitors compliance with the printing and publishing regulations of NOAA, the U.S. Department of Commerce, the Government Publishing Office, and the Joint Committee on Printing of the U.S. Congress. The SPO also carries out the recommendations from the PAC meetings as well as the PAC's mandates that are approved by the NOAA Assistant Administrator for Fisheries.

The SPO is located within the NMFS Office of Science and Technology (one of the NMFS National Program Offices) and reports to the Chief of the Economics and Social Science Division (ST5).

6.4 Science Centers, Regional Offices, and National Program Offices

NMFS Science Centers, Regional Offices, and National Program Offices generate manuscripts that may be published within the NOAA Formal Series (or outside journals of a similar nature) or may become publications of the NOAA Informal Series (for example, the Technical Memorandum and Processed Report series published by a Science Center), and are responsible for conducting their own reviews of the contents as part of the clearance and approval process as described in 7.1 (below) as well as for performing technical and copy edits as appropriate for the category of publication before production of print and digital

versions.

7. QUALITY ASSURANCE

Quality assurance is imperative to NMFS publications, as they must withstand the strictest scrutiny of the scientific and legal communities.

7.1 Internal Peer Review and Other Types of Internal Review

Finished manuscripts from Science Centers, Regional Offices, and National Program Offices undergo several different types of review before supervisors and approving officials clear them for release to a NMFS internal publication series or an external scientific journal.

This clearance process is standardized for NMFS-wide consistency, and follows NMFS Policy Document (PD) 04-113-01: NMFS Guidance on Internal Review and Approval of Fundamental Research Communications (see 10.1.6 below). The process includes the following reviews: an internal peer review on the quality of the science; a review for compliance with the Information Quality Act as well as identification of Influential Scientific Information (ISI) or the presence of a Highly Influential Scientific Assessment (HISA); a review to identify the need for legal disclaimers; a review to identify high-profile or controversial information; and a review to ensure professional standards of writing and communication. Certain reviews in this process may be omitted as warranted by the nature of the publication product. PD 04-113-01 describes these situations.

The Research Publication Tracking System (RPTS) or NOAA Form 25-700 (or similar document) is used to indicate completion of appropriate reviews and to signify approval of final release for publication.

7.2 External Peer Review

Manuscripts submitted to the NMFS journals *Fishery Bulletin* or *Marine Fisheries Review* or to the NOAA Professional Paper NMFS series must also be reviewed by the designated Scientific Editors of those publications, who in turn arrange for formal, external peer reviews and exercise full editorial oversight. The internal peer review process tracked by the RPTS does not substitute for the peer review process of the NOAA Formal Series or external scientific journals.

8. PUBLISHING PRIVILEGES AND RESPONSIBILITIES

Publication is the final act of research; the research process is not complete until the results are published. NMFS is obligated to publish and disseminate the results of its scientific studies and is responsible for conducting these activities with the highest regard for the integrity of the

scientific and editorial processes. The process of documenting scientific findings begins with the scientific investigator and ends with publication and dissemination.

8.1 Publication Privileges

The NOAA Formal Series publications have the status of scientifically independent journals under control of their respective Scientific Editors. No one, within or outside the agency, receives special consideration for publication privileges in the NMFS journals *Fishery Bulletin* or *Marine Fisheries Review* or in the NOAA Professional Paper NMFS series. Acceptance for publication is based on merit as evaluated through peer reviews and on the judgment of the respective Scientific Editors.

8.2 Research Documentation

Each NMFS employee responsible for completing a scientific investigation is also responsible for documenting the results. When significant new information of potential interest or value to the scientific community is developed from a study, the employee has the added responsibility of making the findings available through a formal, peer-reviewed publication series, one that subjects the study to a sufficiently rigorous level of review and scrutiny to validate the study's experimental design, methods, and conclusions. Publication of the study in such a series establishes the findings as citable literature and therefore worthy of being referenced as authoritative work that adds to the world's knowledge.

NMFS managers and supervisors are responsible for encouraging formal publication of appropriate scientific findings. The NOAA Formal Series should be considered as primary outlets for research reports written by employees (see 5.1 above). Following such consideration, employees, in concert with their supervisors and Science Center Directors, Regional Administrators, or National Program Office Directors, may elect to publish in another appropriate outlet of their choice.

9. PUBLISHING ETHICS AND OVERSIGHT

Maintaining professional standards of publication ethics is of the utmost importance to the integrity of NMFS publications. The Publications Advisory Committee (PAC) oversees all allegations of scientific misconduct in *Fishery Bulletin*, *Marine Fisheries Review*, and the NOAA Professional Paper NMFS series. Authors, editors, and reviewers are expected to adhere to the highest levels of professional confidentiality and integrity.

9.1 Scientific Misconduct

PAC oversight of scientific writing, editing, and publishing is limited to issues of scientific misconduct and does not include issues of editorial discretion or judgment. Allegations of scientific misconduct must be presented to the PAC Chairperson in writing and with appropriate documentation. The PAC will investigate and, should a majority of its members find that any action has been grossly inappropriate, will present documented findings and advice to the NOAA Scientific Integrity Officer, who will then initiate the NOAA Science Council's procedures for responding to allegations of scientific misconduct as per NOAA's Scientific Integrity Policy (NAO 202-735D, see 10.1.5 below).

9.2 Author and Editor Confidentiality

NMFS Scientific Editors are responsible for maintaining the confidentiality of the manuscripts submitted to them while in their possession. Reviewers are likewise responsible for maintaining confidentiality of their reviews and of the information reviewed.

In the case of double-blind reviews, if requested in writing by a reviewer the Scientific Editor may reveal the name of that reviewer but only to the author(s) involved.

9.3 Avoiding Dual Publication

Dual publication occurs when the results of a study are published twice with both publications being literature grade. The requirement to avoid this situation applies whether publishing inside or outside of NMFS. Even if the publications are modified to have minor differences, dual publication is considered professional misconduct and unethical for numerous reasons, with three offenses in particular standing out: it skews the importance of the results by artificially inflating the number of studies with those results, which then affects compilation of study results and the input on management decisions; it illegitimately increases the number of publications that a scientist publishes, effectively getting double credit for a single study; and it wastes the time of the editorial staff when the second attempt at publication is discovered and ultimately rejected.

Authors are responsible for informing the Scientific Editors of journals and other literature-grade publications if substantial portions of the material submitted in a manuscript have previously appeared or are likely to appear in any other context (print or electronic), the number of copies produced, and where distribution has been made. Decisions on accepting, revising, or declining the manuscript rest entirely with the publication's Scientific Editor.

10. REGULATORY AUTHORITIES AND THEIR REQUIREMENTS ON PUBLISHING

The official regulations that must be followed when producing NOAA publications come from several sources. This section names these regulations, lists the authorities behind them, and briefly describes what each covers with respect to NMFS scientific publications.

10.1 Regulatory Authorities and Sources of Reference

Title 44 of the U.S. Code contains the statutory authority for the policies and procedures for publishing and distributing Federal publications. The regulations issued pursuant to Title 44 are administered by the Joint Committee on Printing (JCP) of the U.S. Congress, which oversees the U.S. Government Publishing Office (GPO), which in turn sets requirements on printing, distribution, and archiving. NMFS scientific publications follow the regulations of these entities and are guided by additional policies on publication by the U.S. Department of Commerce (DOC) and NOAA.

10.1.1 Title 44 of the U.S. Code—Public Printing and Documents Title 44 covers the administration, general management, and operations of numerous parts of the Federal Government related to printing and publications, of which the following are especially pertinent and relevant to NMFS publishing: the JCP; the GPO with its Superintendent of Documents for distribution and Depository Library Program for public access; and the National Archives and Records Administration. Title 44 is available at this website: <http://uscode.house.gov/>.

10.1.2 Joint Committee on Printing The JCP oversees the GPO and other printing matters of the Federal Government, such as allowable uses of color in printing, and obtains its authority from Title 44 of the U.S. Code. The JCP Government Printing and Binding Regulations are available at this website: <https://www.gpo.gov/docs/default-source/forms-standards-pdf-files/jcpregs.pdf>.

10.1.3 Government Publishing Office The GPO is the mandated source for Federal printing, and the Superintendent of Documents is GPO's division devoted to the dissemination of Federal publications by all distribution means available, including subscription sales of printed journals and providing publications to Federal Depository Libraries. These functions are now undertaken for digital publications as well. Information on GPO and its requirements is available at this website: <https://gpo.gov>.

10.1.4 Department of Commerce The DOC has specific policies for all forms of public communications produced by its agencies.

DAO 219-1: Public Communications This Departmental Administrative Order (DAO) covers DOC policy for all publications, and it discusses Fundamental Research Communications in particular. DAO 219-1 is available at this website: https://www.osec.doc.gov/opog/dmp/daos/dao219_1.html.

DOC Publishing and Printing Manual This document describes DOC publishing guidance and requirements in detail, discusses how the JCP and GPO operate, covers issues such as copyright and credit lines, and describes the clearances needed to publish within NOAA and NMFS. The DOC Publishing and Printing Manual is available at this website:

https://www.corporateservices.noaa.gov/facmd/logistics_management/business_cards/publishing-and-printing-manual.pdf.

10.1.5 National Oceanic and Atmospheric Administration NOAA has policies regarding the publications produced by its Line Offices. The following NOAA Administrative Orders (NAO) cover these policies.

NAO 201-32G: Scientific and Technical Publications This Order describes the authorized types of publication series, as well as their general contents and nature, and defines editorial processes and categories of editing. NAO 201-32G is available at this website:

https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_201/201-32G.html.

NAO 202-735D: Scientific Integrity This Order describes NOAA's principles of, and policy on, scientific integrity as well as codes of conduct and ethics. NAO 202-735D is available at this website:

https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/202-735-D.html.

NOAA Procedural Handbook for NAO 202-735D This document covers the steps NOAA follows to investigate and resolve allegations of scientific misconduct. The document is available at this website:

https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/Procedural_Handbook_NAO_202-735D_%20FINAL_Aug2017%20Ammendment.pdf.

NOAA Framework for Internal Review and Approval of Fundamental Research Communications This document was developed to accompany NAO 202-735D and contains guidance from the NOAA Science Council on establishing procedures for approving officials, reviewers, and authors regarding review and approval of Fundamental Research Communications. The document is available at this website: https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/FR_C%20Guidance%20Nov%208%202016.pdf.

NAO 205-17A: Information Access & Dissemination This Order describes how to establish publication series and gives distribution requirements. NAO 205-17A is available at this website:

https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_205/205-17.html.

10.1.6 National Marine Fisheries Service NMFS has Policy Directives (PD) regarding the publications produced by its Science Centers, Regional Offices, and Headquarters Program Offices. The following documents cover these policies.

NMFS Policy Directive 04-108: Policy on the Data Quality Act This Policy Directive's purpose is to ensure that NMFS meets the quality requirements for information that it disseminates. Detailed information on NOAA's Information Quality Guidelines is included. PD 04-108 is available at this website: <https://www.fisheries.noaa.gov/national/laws-and-policies/science-and-technology-policy-directives>.

NMFS Policy Directive 04-108-02: Section 515 Pre-Dissemination Review and Documentation Form This Policy Directive contains a form that assists reviewers in assessing the utility, integrity, and objectivity of an information product before it is released for distribution. PD 04-108-02 is available at this website: <https://www.fisheries.noaa.gov/national/laws-and-policies/science-and-technology-policy-directives>.

NMFS Policy Directive 04-108-03: Section 515 Pre-Dissemination Review and Documentation Guidelines This Policy Directive explains in detail how to assess an information product while using the Section 515 Pre Dissemination Review and Documentation Form. PD 04-108-03 is available at this website: <https://www.fisheries.noaa.gov/national/laws-and-policies/science-and-technology-policy-directives>.

NMFS Policy Directive 04-108-04: OMB Peer Review Bulletin Guidance This Policy Directive provides guidance on developing and posting peer review plans for upcoming dissemination of Influential Scientific Information and Highly Influential Scientific Assessments, in accordance with the Peer Review Bulletin (PRB) issued by the White House Office of Management and Budget (OMB). PD 04-108-04 is available at this website: <https://www.fisheries.noaa.gov/national/laws-and-policies/science-and-technology-policy-directives>.

NMFS Policy Directive 04-113: NMFS Policy on the Internal Review and Approval of Fundamental Research Communications This Policy Directive describes the NMFS policy on internal processes for peer review and approval of publications that are in the category of Fundamental Research Communications. PD 04-113 is available at this website: <https://www.fisheries.noaa.gov/national/laws-and-policies/science-and-technology-policy-directives>

NMFS Policy Directive 04-113-01: NMFS Guidance on Internal Review and Approval of Fundamental Research Communications This Policy Directive describes the NMFS processes for internal peer review and approval of publications in the category of Fundamental Research Communications. PD 04-113-01 is available at this website: <https://www.fisheries.noaa.gov/national/laws-and-policies/science-and-technology-policy-directives>

10.2 Cataloging Publications

Cataloging the individual publications in each NMFS series helps organize the series and assists future access. Each publication must have a uniquely coded number to establish its order in the series and requires a Digital Object Identifier (DOI) code for the Internet link to the digital version. It is strongly encouraged that all NMFS scientific publications be released within one of the established series of the agency. If a publication does not fit within one of the established series (and therefore does not get a series number), then efforts must be made to ensure it can be located and accessed by digital identifiers and any other means available.

10.2.1 Series Numbers Assigning a unique identifying number for each individual document published in a NMFS series is the responsibility of the Science Center, Regional Office, or National Program Office publishing the series. Examples are *Fishery Bulletin* volume 101 number 2, and NOAA Technical Memorandum NMFS F/SPO-147.

10.2.2 DOI Codes A Digital Object Identifier code is assigned to the online version of each document in a NMFS publication series. It is the responsibility of the Science Center, Regional Office, or National Program Office that produces the online version to obtain the DOI code and see that its link is kept current.

10.2.3 ISSN Codes It is the responsibility of the Science Center, Regional Office, or National Program Office that creates and publishes a new journal series to obtain International Standard Serial Number (ISSN) codes for the series, one for the printed version and another for the digital version.

10.2.4 ISBN Codes International Standard Book Number (ISBN) codes are to be assigned to books published by NMFS. Acquisition of these codes is to be arranged by the Science Center, Regional Office, or National Program Office producing the book.

10.3 Distribution and Archiving of Publications

In addition to posting digital versions of NMFS publications to NOAA and NMFS websites, NMFS publications (both print and digital, as appropriate) are distributed to the following organizations in accordance with the directives of NOAA Administrative Order 205-17A: the NOAA Central Library's Institutional Repository, the GPO's Superintendent of

Documents, the GPO's Depository Library Program, and the National Archives and Records Administration.