

Preparation of the Manuscript

Number all pages. Double-space the entire manuscript, including references, tables, footnotes, and figure captions. Leave margins of about 1.5 inches on all sides. Do not hyphenate words at the right margin, and do not right-justify the text. Do not embed special codes for fonts, italics, or other MS Word characteristics.

Traditional section headings (e.g., Methods, Results, and Discussion) and informative headings are acceptable. In general, use no more than three levels of organization. Occasionally, a fourth level is necessary to introduce material. Usually only two levels of headings are listed in the table of contents. Treat headings as follows:

FIRST-ORDER HEAD

Second-Order Head

Third-order Head

Fourth-order head. Continue text...

Our standard for the definition and spelling of words is *Webster's Third New International Dictionary* as updated by the latest edition of Webster's collegiate dictionary. Useful general guides are the *CBE Style Manual*, 6th edition, 1994, and the *United States Government Printing Office Style Manual*, 28th edition, 1984.

Title

The title should be specific and concise, contain key words, and not exceed 10 words. Avoid scientific names except in a taxonomic treatise and avoid abbreviations.

Author's Affiliation

Use first names, initials, and surnames (John R. Smith) or first initials, second names, and surnames (J. Robert Smith). The use of only initials with surnames causes indexing and retrieval difficulties. Do not include professional titles or academic degrees. State the name of the affiliation first (e.g., Northern Arizona University or US Geological Survey) and then list the name of the office, street address, state, and postal code. Do not abbreviate names of states. The affiliation should be the institution where the work was conducted. If the present address of an author differs from that at which the work was done, give the current address in a footnote at the bottom of the first page.

Abstract

The importance of the abstract cannot be overemphasized; its content often determines whether the article itself will be read. The abstract must be the lesser of 250 words or 3% of the length of the article, and it must be a concise statement of the principal findings rather than a listing of covered subjects. The abstract cannot contain references and information that is not given in the text; it must be a single paragraph.

Key Words

Include a list of five to eight key words or phrases, preceded by “Key words:” to appear with the abstract. Do not duplicate words in the title.

Acknowledgments

In general, acknowledge only direct help with research or writing. Acknowledgments of typists, illustrators, editors, and referees are discouraged; however, financial support for the work may be acknowledged here. Use only forename initials with the surname; do not include professional titles or academic degrees. Place the acknowledgments section at the end of the main text, preceding the cited references.

Cited References

Include only cited works. Omissions, discrepancies in the spelling of names, errors in titles, and mistakes in dates or page numbers reduce the value of citations and cast doubt on the author's reliability.

Use the name-and-year system for citations of references in the text. Use “et al.” in the text if a citation includes three or more authors; do not insert a comma between the author and the year. Use a semicolon between citations of works by different authors in one set of parentheses (Brown 1989; Smith 1990). Use commas between citations of two or more publications by the same author (Smith 1970, 1972a, 1972b). Put two or more citations in chronological order in the same pair of parentheses. Place sources of personal communications and unpublished data in parentheses in the text (J. R. Smith, Rice University, Houston, Texas, personal communication); do not list them in the cited references. If a paper was formally accepted by a journal but has not yet been published, cite it in the text as (Smith [year of publication]) and in the cited references as in the example for publications in press. Spell out names of publications in full. Examples of common citation formats for series publications are:

Standard Journal Article

Barton, B. A., and C. B. Schreck. 1987. Metabolic cost of acute physical stress in juvenile steelhead. *Transactions of the American Fisheries Society* 116: 257–263.

Pages in a Book or in Proceedings

Anderson, R. O., and S. J. Gutreuter. 1983. Length, weight, and associated structural indices. In *Fisheries techniques*, edited by L. A. Nielsen and D. L. Johnson, pp. 283-300. American Fisheries Society, Bethesda MD.

Thesis

Ellingwood, M. R. 1983. American woodcock singing grounds, summer fields, and night surveys in West Virginia. Masters thesis, West Virginia University, Morgantown. 147 pp.

Book

Woodford, E. K., and S. A. Evans, editors. 1965. *Weed control handbook*. 4th edition. Blackwell Scientific Publications, Oxford UK.

Agency as Author

U.S. Geological Survey. 1970. The national atlas of the United States of America. U.S. Government Printing Office, Washington, D.C.

Publications in Press

Smith, J. R. 1993. [Title of paper]. *Journal of Wildlife Management*. In press.

Appendixes

Appendixes complement the text of a paper. Few papers need them. Their best use is for supplementary material that is necessary for completeness but would detract from the orderly and logical presentation of the work if inserted into the body of the paper. Appendixes may also be used for supplementary material that is valuable to the specialist but of little interest to the general reader. Label appendixes with letters (Appendix A, Appendix B, etc.). A single appendix is labeled "Appendix."

Footnotes

Because footnotes in the text are distracting and usually unnecessary, incorporate the information in the text, usually in parentheses. If footnotes in the text are unavoidable, use superscript numbers (e.g., ¹ or 1) and place the footnotes at the bottom of the manuscript page on which they appear. Number the footnotes consecutively, starting with the title page. For the footnotes in tables, use superscript letters (e.g., ^a or a); the sequence of footnotes in tables is from left to right, row by row, top to bottom.

Tables

For preparing tables, use the *CBE Style Manual* (6th edition, 1994, pages 677–693) as a general guide. Type each table double-spaced (including title and footnotes) on a separate page or pages; assemble tables in sequence after the last text page. Use Arabic numerals to number tables sequentially in the order of their discussion in the text. If the manuscript contains only one table, use "Table." Every table must be cited in the text "(Tables 2 and 3)." The title, heading, legend, and footnotes must contain all of the information the reader needs to understand the table without referring to the text. Tables of similar information should have similar or parallel formats, styles, and titles. Use the WordPerfect table function and not the column function to compose tables.

A table title should be brief and informative. Capitalize only the first word of the title and proper nouns or adjectives. Do not abbreviate scientific names or other terms that may be abbreviated in the text.

The column (or box) and side (or stub) headings must be clear and concise. Capitalize only the first word of each heading. Define nonstandard abbreviations in the footnotes. Designate footnotes by lowercase superscript letters.

The field (or body) of the table must be clear, simple, and organized so that trends and relations can be easily recognized. Words are usually aligned on the left; numbers are usually aligned on the decimals. Use a zero before decimal points not preceded by other numerals. Groups of numbers connected by plus or minus signs and ranges of numbers connected by dashes are usually aligned on the symbols and centered in the column width. Do not use ditto marks; repeat the entry. Place explanatory material for specific entries in footnotes. Be sure that all columns are necessary. If no data are entered on most lines of a column or if the entries in the entire column are identical, the column should nearly always be deleted and replaced with a general footnote. The absence of a measurement should be shown by a blank space.

Figures (Illustrations)

Use the *CBE Style Manual* (6th edition, 1994, pages 693–699) as a general guide for preparing figures. Other useful guides are *Steps Toward Better Scientific Illustrations* (2nd edition, 1977) by Arly Allen, Allen Press, Lawrence, Kansas, and *Illustrating Science: Standards for Publication* (1988) by the Scientific Illustration Committee of the Council of Biology Editors, Chicago. Illustrations in series publications are usually of two types: line drawings and halftones (black-and-white photographs). Illustrations must be of professional quality. Press-on lettering may be used, but laser-printer lettering is preferred. Freehand and typewritten lettering is not acceptable. Use upper- and lower-case letters for labels in figures (e.g., Snake River, not SNAKE RIVER). Line drawings must be on drafting paper or illustration board and in black ink. Glossy prints or PMTs (photomechanical transfers) may be submitted. All illustrations in a series of drawings must be prepared in the same proportion. The lettering style must be the same in all drawings for a given manuscript. Halftones must be sharp, glossy, unmounted prints. Photocopies are not acceptable for final printing. Crop marks may be indicated on copies of halftones but not on the halftone. Line drawings and halftones must not exceed 8.5 × 11 inches and must be properly proportioned to permit a reduction to about two-thirds or less of the actual size. Hard copies of computer-generated figures may be submitted if they are accompanied by a labeled disk. Because color plates greatly increase the cost of a publication, their use is discouraged unless approved by the editor.

Do not incorporate figures into the text; place them on separate sheets after the tables. Number figures sequentially with Arabic numerals in the order they are discussed, and refer to them in the text by their numbers: “in Fig. 1,” “(Figs. 2 and 3).” If only one figure is in the manuscript, use “Figure.”

On the back of each figure, show the figure number and the author's name and identify the top of the figure with the word “top.” Write lightly with a soft pencil (do not use a ballpoint pen) or affix a pressure-sensitive label. Protect figures with cardboard when you mail them. Send original figures with the revised manuscript; photocopies may be sent with the initial draft of the manuscript.

Every figure must have a separate caption that includes the figure number and a brief description, preferably one sentence or a descriptive phrase. Figures and their captions must be understandable without reference to the text and must not directly duplicate material in the tables or text. Do not place the caption on the figure. List double-spaced figure captions in numerical order on a separate page; place the list with the figures.

Usage and Style

Series style follows the principles of standard formal English and recognized style guides. This style is expected to ease communication between the writer and the reader and to minimize the probability of inadvertent ambiguities. Preparing the paper in accordance with the series style and the editor's recommended revisions speeds publication. Manuscripts that do not meet the specifications for acceptable copy may be returned to the author for revision without review. It is not possible to provide detailed examples of every usage; we address only some of the common questions by authors. The primary authority for most matters of standard usage is the *CBE Style Manual* (6th edition, 1994). Another source is the *Bedford Handbook for Writers* (3rd edition, 1991).

Lengths of Sentences and Paragraphs

Most sentences of 28 or more words usually are cumbersome, and the editors assist authors with recasting them. Similarly, the editors assist authors with avoiding one-sentence paragraphs.

Dates and Time

The sequence of dates is day, month, and year without punctuation (10 January 1988). Give ranges of dates in full (1986–1988) in titles; they may be abbreviated in the text (1986–88). Form the plural of a date with an apostrophe (1980's), but spell out decades (e.g., the sixties and seventies) and centuries (e.g., the twentieth century). Use numerals with “B.C.” and with “A.D.” (e.g., 2500 B.C.).

Use the 24-hour system to report time. In this system, the day begins at midnight, 0000 hours, and the last minute is 2359 hours. Thus, 10:15 p.m. is written as 2215 hours.

Do not abbreviate units of time of 1 day or longer (day, week, month, year), but use standard abbreviations for shorter intervals (s, min, h).