



American Journal of Botany Instructions for Authors

Scope and Aims of the Journal

The *American Journal of Botany* (*AJB*) publishes significant, novel research of

interest to a wide audience of plant scientists in all areas of plant biology (structure, function, development, diversity, genetics, evolution, systematics), all levels of organization (molecular to ecosystem), and all plant groups and allied organisms (cyanobacteria, algae, fungi, and lichens). *AJB* requires authors to frame their research questions and discuss their results in terms of major questions of plant biology to maximize the impact and value of their research. Purely descriptive papers and broad surveys are not generally considered or accepted for publication.

General Instructions and Requirements

Before submitting, please review all instructions and refer to recent issues of *AJB*. This document is also available electronically at *AJB* Online (<http://www.amjbot.org/misc/ifora.shtml>).

At least one author must be a member of the Botanical Society of America (BSA) when the manuscript is submitted for review and also during the year of publication (except for Invited Special Papers).

Submit your manuscript via the online submission and review system, Editorial Manager, at <http://ajb.edmgr.com>. First-time users need to register for an account at this URL using their active e-mail addresses. The same Username and Password are used to log in as an author or as a reviewer. For help using the Editorial Manager system, select "Help" from the menu at the top of the screen at any time. All reviews, revisions, and proofs are handled electronically. If you are unable to access the Internet, please contact the Editorial Office.

Each member is entitled to a set number of free pages per year dependent upon length of membership: 12 pages for members of 1–4 years, 16 for members of 5–9 years, and 20 for members longer than 10 years. If more than one author is a member, up to 14 free pages may be used per paper. Each printed page in excess of the free pages is assessed a mandatory page charge of \$135 per page. Authors are asked to pay voluntary publication costs if they have funds. There is a mandatory charge for more than five changes made on proofs resulting from mistakes made by the author(s).

Color plates are free for members of more than 10 years, \$100 per plate (maximum charge of \$250) for members of 5–9 years, and \$150 per plate (maximum charge of \$300) for members of 1–4 years.

At the time of submission, *AJB* requires supporting genetic and voucher specimen information be provided (see Appendices). In discussions of morphological character states, access to the data must be provided.

Nomenclature *AJB* requires that nomenclature for all extant and extinct species conform to the current International Code of Botanical Nomenclature. Taxonomic authorities are given at first mention in the text (not in the manuscript title).

Use conventions adopted by the scientific community for genetic symbols and nomenclature.

Genetic Analyses *AJB* requires supporting genetic information, such as DNA, RNA, or protein sequences, be submitted to an appropriate data bank, such as GenBank/EMBL. Alignments used to produce phylogenies must be submitted to TreeBase or to *AJB* to be published as an online supplement with the paper. The data matrices must be in an editable format (i.e., text files) for reanalysis by anyone interested. Phylogenetic analyses will generally only be considered if

the phylogeny is used to test explicit evolutionary and/or ecological hypotheses or morphological associations—essentially a significant discussion of the impact and/or use of the phylogeny.

Article Types

In addition to **Research Papers**, *AJB* publishes the following: **Special Papers** These are mostly reviews of limited scope on timely subjects written for a general, albeit well-informed, audience. Special Papers are typically solicited by the Editor-in-Chief, the Special Papers Editor, or an Associate Editor. Discuss ideas for unsolicited Special Papers with the Editor-in-Chief or the Special Papers Editor. Manuscripts are subject to the usual review process. Benefits for Invited Special Papers include rapid publication, two free color plates, no page charges, and free membership in the BSA for one year. In the introduction, succinctly explain why your paper is of interest to the general biological community.

Brief Communications These are short papers (1–3 printed pages) reporting significant new findings that do not warrant standard full-length treatment with the usual main headings, or that provide scholarly commentaries, corrections, criticisms, or alternative interpretations of results presented in published papers. "Opinion" papers that are unsupported by new data or reanalysis of published data are unacceptable. Brief Communications are subject to normal review. Publication will be expedited. Membership requirements and page charges are not waived.

Book Reviews All book reviews are by invitation, and publication is expedited. Direct communication and manuscripts to the Book Review Editor. Membership requirements and page charges are waived. An alternative outlet for book reviews is the *Plant Science Bulletin*. [Contact the editor at psb@botany.org.]

Manuscript Preparation

A cover letter, an author agreement form, a manuscript file, and separate files for figures should be uploaded at <http://ajb.edmgr.com>. The manuscript file includes in the following order: Title Page, Footnote Page, Abstract Page, Text, Literature Cited, Tables, Appendices, and Figure Legends. For manuscript files MS Word (.doc) format is preferred; WordPerfect (.wpd), Rich Text Format (.rtf), and PDF files are acceptable for review.

The Editorial Manager online submission system automatically inserts line numbers to facilitate review comments, so line numbers are not needed in the manuscript file.

Double-space and left justify the margin of the entire manuscript, including Literature Cited, Tables, Appendices, and Figure Legends, using continuous pagination. Leave at least a 2.5 cm margin on all sides. Place a header with last name(s) of author(s) and page number in upper right corner.

Number figures and tables in the order discussed in the text.

AJB requires that at least one colleague whose first language is English critically read and edit your manuscript before submission.

Cover/Rebuttal Letter

Include a cover letter that describes the questions addressed or hypotheses tested, the major contribution of your paper to your discipline, and how this contribution is of interest to a broad audience. List any papers on related topics by any of the authors that have been published within the past year or that are in review or in press. For a revision, include a rebuttal letter detailing your response to all the review comments.

Author Agreement Form

Upon initial submission of a manuscript, the corresponding author must fill out an author agreement form and either upload an electronic version at the online submission site or mail or fax a hard copy to the Editorial Office in St. Louis, Missouri. The author agreement form is available online at http://www.botany.org/ajb/AJB_Author_Agreement_Form.dot; on the Editorial Manager website at the “Attach Files” screen; and from the Editorial Office.

Manuscript Contents

1. Title Page

Place a running head 2.5 cm below top of page with first author’s surname (use et al. for three or more) and a short title.

Center boldfaced title written with sentence-style capitalization, followed by superscript 1 (for footnote 1, to appear on footnote page). After a species name, include the family name in parentheses.

Below title, list authors: each author’s first name, middle initial, surname. On next line, give affiliation and unabbreviated address. If authors have different affiliations and addresses, add a superscript number after each author’s name to indicate the footnoted address. Include another footnote superscript number to indicate the author for correspondence.

2. Footnote Page

Include the following footnote:

¹Manuscript received _____; revision accepted _____.

Place brief acknowledgments, if desired, as a separate paragraph, using the following style: “The author(s) thank(s)…” For brevity, do not use first names. Include grant acknowledgments here.

Other footnotes (e.g., e-mail for correspondence) are permitted: match footnote numbers with those on the title page.

3. Abstract Page

The abstract is one concise paragraph (200 words) that includes in the following order: the paper’s premise (why you did this work), content, methods, and significance. Include why your paper is of interest to both your subdiscipline and the botanical community in general. Avoid references; if essential, cite parenthetically with journal name, volume number, pages, and year.

Provide a list of 3–10 “**Key words**” that will be used for the volume index. Capitalize proper nouns, place in alphabetical order, and separate by semicolons.

4. Text

In the introduction and DISCUSSION include the theoretical or conceptual basis for your work in a context accessible to the diverse botanical readership that *AJB* attracts. Include a summary of conclusions and a take-home message for the generally informed reader at the end of the introduction and in the DISCUSSION. Keep the Discussion separate from the Results section.

Center main headings and capitalize all letters: MATERIALS AND METHODS, RESULTS, and DISCUSSION.

Indent subheadings at the start of a paragraph; capitalize only the first word and proper nouns and adjectives.

Second-level headings—(boldface italic followed by an em dash as shown)

Third-level headings—(italic followed by an em dash)

In MATERIALS AND METHODS, add name, city, spelled-out state (if in USA), and country of manufacturer/supplier after a brand name.

Common Latin words (e.g., in vivo, in situ, sensu lato) are not italicized.

Footnotes are not used in the text.

5. Literature Cited

Verify all entries against original sources. Cross-check all entries against the citations in the text for their presence in both text and list and for their agreement in spelling and year.

Literature citations in text

Cite references in chronological order (oldest first); within a given year, order them alphabetically (e.g., Jones and Gil, 1984, 1990; Ashton et al., 1992; Brown, 1992; Jackson, 1993, 1995).

Single author: Jones (1990) or (Jones, 1990). Two authors: Jones and Gil (1990) or (Jones and Gil, 1990). More than two authors: Jones et al. (1990) or (Jones et al., 1990).

Manuscripts accepted for publication but not yet published: Jones (in press) or (Jones, in press). Include “In press” citations in LITERATURE CITED (shown later).

Unpublished data and manuscripts (e.g., submitted, in prep.) and personal communication: (F. Jones, Institution, unpublished data [or unpublished manuscript or personal observation]). These are not included in LITERATURE CITED.

References listed in LITERATURE CITED

List citations in alphabetical order by author. Single-author titles precede multi-authored titles by the same senior author, regardless of date.

List works by the same author(s) chronologically, beginning with earliest date of publication. Spell out all author(s)’ names. Use “a”, “b” (determined alphabetically) for works with the same author(s) and year citation.

Format as per examples (note spacing, italics, etc.):

JONES, A. B. 1990. Leaf anatomy. Wiley, New York, New York, USA.

JONES, A. B. 1992. Leaf anatomy. In J. Sanders and R. Richards [eds.], *Botany*, vol. 2, 200–234. Wiley, New York, New York, USA.

JONES, A. B., AND T. THOMPSON. 1994. Ovule development. *American Journal of Botany* 80: 234–256.

JONES, A. B., AND T. THOMPSON. 1995. Ovule development. *American Journal of Botany* 82 (Supplement): 221 (Abstract).

JONES, A. B., T. THOMPSON, AND F. ROBERTS. In press. Ovule development. *American Journal of Botany*.

LANNER, R. M. 1980. Avian seed dispersal as a factor in the ecology and evolution of limber and whitebark pines. In B. P. Dancik and K. O. Higginbotham [eds.], *Proceedings of the Sixth North American Forest Biology Workshop in Edmonton, Alberta, 1980*, 15–48. University of Alberta, Edmonton, Alberta, Canada.

SAS. 1997. SAS/STAT software: changes and enhancements through release 6.11. SAS Institute, Cary, North Carolina, USA.

WATSON, L., AND M. J. DALLWITZ. 1992. The families of flowering plants: descriptions and information retrieval. Website <http://biodiversity.uno.edu/delta/> [accessed 14 May 2000].

6. Tables

Tables need to be formatted using the Table feature in Word or in a spreadsheet such as Excel.

Each table starts on a separate page. Number tables with Arabic numerals followed by a period. Capitalize first word of title; all others, except proper nouns, are lowercase; spell out names of genera and abbreviations on first mention; place period at end. Include study organism (species or group) and geographic location in each caption

when appropriate. Place explanatory notes and define all abbreviations below the table after the heading “*Note:*” or “*Notes:*”. Place footnotes after the Notes.

Every column must have an appropriately placed heading (esp. the first at left—the stub head), with appropriate subheadings. In the body of the table, capitalize the first word of each entry (and proper nouns); do not use vertical lines between columns; indicate footnotes by lowercase superscript letters.

7. Appendices

If voucher and gene accession information support the study, list these in Appendix 1, which will be published in the print and online versions. Provide an appendix title, and a sentence-style row of headings for the data. For each taxon sampled, include specimen voucher information and/or gene accession numbers, separated by commas. To save space, the taxa can be run together in a paragraph. See a current issue or <http://www.amjbot.org/cgi/content/full/93/4/607> for an example.

Additional appendices may be included. *AJB* encourages online-only publication of extensive appendices, as well as other supplemental materials that support the article but are best presented electronically (see Online Supplemental Materials).

8. Figure Legends

Each figure legend must be complete and informative so that reference to the text is not necessary to understand the content of the figure.

Abbreviations should be defined unless they are standard convention. Place legends as separate paragraphs following the appendices. For figures with multiple lettered panels, a general title for the figure should be followed by a description of each panel (e.g., “Fig. 5. Relationship between... (A) All fruits. (B) Fruits <0.5 mm.”). When applicable, include study organism (species or group) or geographic location, and define scale bar (e.g., Bar = 0.1 μ m). For micrographs, include pertinent information such as magnification and type of section, stain, optics, or special techniques. Any nonlinear adjustment to photographs must be detailed.

Define all symbols and abbreviations either in a key within the figure or in the legend; if defined in an earlier legend, the appropriate figure or table may be cited. Place figure abbreviations in alphabetical order and format as follows: c, cell; n, nucleus.

Figures/Illustrations

For details and illustrated examples, see http://www.botany.org/ajb/AJB_Digital_Art_Guidelines.pdf. A figure checklist is also available at http://www.botany.org/ajb/AJB_Figure_Checklist.pdf.

Submit figures as separate files. TIFF or EPS formats are preferred for color and black and white photographs, drawings, and graphs.

Prepare figures at the final size desired: one (8.9 cm; 3.5”) or two (18.4 cm; 7.5”) columns wide and less than the length of the page (21.6 cm; 8.5”).

Low-resolution files may be initially uploaded/submitted for the review process. Once your manuscript has been tentatively accepted, printer-quality (high-resolution) figures are required. See “*Tips for Large Files*” below.

Figure Manipulations

Certain types of electronic manipulations of micrographs and other digital images may not be ethically acceptable. Images that will be compared with each other must be acquired and processed under the same conditions. Manipulations such as background subtraction or white-balancing should be explained in the Materials and Methods.

Note that a selected area within an image may not be altered or enhanced; the entire image must be treated the same. Linear adjustments to contrast, brightness, or color must be applied to an entire image or plate equally (or explained). Detail nonlinear adjustments in the legend. Always keep original raw data files for documentation upon request.

Resolution for Final Figures

Line art (black lines and text, including phylogenetic trees): 1000–1200 dpi.

Halftone/grayscale (images with shades of gray, such as black and white photographs): a minimum of 300 dpi.

Color: a minimum of 300 dpi. Use RGB mode (not Indexed Color Mode). [Note: Do not send color files if images are to be printed in black and white.]

Combination art (grayscale image with type): 600–900 dpi.

Grayscale images should have the whitest area of the image set at a 2% highlight value, while the blackest area of the image should be set to a 98% shadow value.

Include the screen and printer font files for any text that has been added to the figure. Use PC or Mac versions of Adobe Postscript fonts. To avoid font problems, convert all type to curves or paths.

Check figure quality online using Digital Expert at <http://dx.sheridan.com/onl/rgb/>.

Format and Style

Use consistent style, font, and font size (between 6 and 10 pt.) for all figures.

For figures with multiple elements (photos, drawings, or graphs), group elements in a rectangle or square and label the top left corner of each element with a capital letter (e.g., A, B). Keep elements close together for best use of space. Photographs in a composite plate should each be numbered and separated by a thin line or blank space.

Label axes; include Standard International (SI) units of measure in parentheses; capitalize only the first letter of the first word (e.g., “Stem growth (%)”). Axis label should be c. 0.2 cm from units on axis, no more than 0.5 cm; x- and y-axis labels equidistant from axes.

Use abbreviations consistently in the text and figures.

For magnified illustrations, provide a scale bar defined in either the figure itself or at the end of the legend.

Cover image and caption

You are invited to submit one or more color photographs (or artificially colorized photomicrographs) to be considered for a cover illustration. The image must be at least 300 pp and slightly larger than 23.65 cm high \times 19 cm wide. Submit the file(s) online with your original submission or revised manuscript. Also include a brief caption that describes the image, scientific name and authority of any organism, photographic technique, image manipulation, and the major result of the research. For micrographs, include pertinent information such as magnification and type of section, stain, optics, or special techniques. See a current issue for an example.

Tips for Large Files

Files >5 MB may be slow (or impossible) to upload on most servers. You may compress such files (e.g., using Stuffit or WinZip) or save them as a PDF (using Acrobat Distiller). Alternatively, the Editorial Office may direct you to upload the files to an FTP site.

Online Supplemental Materials

Authors may wish to augment their manuscripts with online supplemental materials (e.g., large data sets, three-dimensional reconstructions, simulations, real-time movies, color photographs).

Upload these appendices as separate files with the initial manuscript submission. Include a header on each file using this format: Smith et al.—American Journal of Botany 95(#): ###-###. 2008. – Data Supplement S1– Page 1”. Name online supplements Appendix S1, Appendix S2, etc. In the manuscript, after the mention of an online appendix, include the following: “(see Supplemental Data with the online version of this article).”

Abbreviations, Units, and Symbols

See a recent Table of Contents page for commonly used abbreviations.

Do not begin a sentence, heading, or title with an abbreviation.

Abbreviate figure as “Fig.” or “Figs.”

Use the following abbreviations with numerals without spelling out at first use: h, min, s, yr, mo, wk, d, cm, mm, DNA, cpDNA, RNA, dNTP. Designate temperature as in 30°C (use the degree sign, not zero or the letter *o*).

Numbers: write out one through nine unless a measurement, a designator, or in a range (e.g., four petals, 3 mm, 6 yr, 5–11 species, day 2). Use % instead of percent with numerals; 1000 instead of 1,000, 10 000 instead of 10,000, 0.13 instead of .13.

Use Standard International (SI) units throughout the text, figures, and tables. Use the word mass (kg, g, mg) correctly; weight is reported in newtons (N). Use either a solidus for one unit in the denominator (e.g., kg/m²) or a negative exponent with multiplier dot (e.g., kg·m⁻²·d⁻¹) for two or more units in the denominator. Use L for liter (mL for milliliter).

Include a space before and after all operation signs (e.g., =, +) with equations and definitions; use an en dash (width of two hyphens) for minus sign.

Review Procedure and Policies

Manuscripts are reviewed by scholars with expertise in the research area. Reviewers, Associate Editors, and the Editor-in-Chief evaluate manuscripts for significant contributions to, and noteworthy advances in, the theoretical or conceptual bases of the subdisciplines of plant biology, and/or novel insights of general relevance to fundamental questions of biology (see AJB [Reviewer Instructions](#) for details on the content of reviews). Manuscripts may be returned without review if the English needs significant improvement. Authors have two opportunities to produce an acceptable manuscript: the original submission and one revision in which to address all the criticisms and concerns of the reviewers and Associate Editors. If significant improvements are not made in the revision cycle, the manuscript will typically be rejected.

If copyrighted material is reproduced in the manuscript, full attribution must be provided in the text; proof of permission must be sent to the Editorial Office. If suspicion is raised about the originality of the material (unattributed to source) the Editorial Office may check the manuscript for plagiarism.

Correspondence and notifications regarding manuscripts will be through e-mail. All reviewer comments, author revisions, and copyediting before production will be done electronically using AJB Editorial Manager (<http://ajb.edmgr.com>).

Final acceptance of a manuscript is contingent upon strict compliance with Journal requirements. Manuscripts other than Special Papers are generally published in the order of receipt, within subject areas, of the final, accepted version or of the corrected proof.

Copyright and Color Agreement Forms

Once your manuscript has been accepted for publication, return signed copyright forms for the article, and any color plates, to the Editorial Office in St. Louis, Missouri. All authors must sign off on the copyright form or contact the Editorial Office to confirm their participation in the work.

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Color agreement form - http://www.botany.org/ajb/AJBcolor_agr.pdf

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Questions? Contact the Editorial Office

American Journal of Botany

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