

Journal of Paleontology

Instructions for Authors

Journal of Paleontology accepts only online manuscript submissions through the website: <http://journalofpaleontology.allentrack.net/>

For questions regarding online submissions, please contact the editorial offices at: jpaleo@si.edu

As you prepare your manuscript, please refer to the following guidelines, as well as previous issues.

EDITORIAL POLICY

Journal of Paleontology publishes manuscripts on all aspects of paleontology, including systematics, phylogeny, paleoecology, paleobiogeography, biostratigraphy, taphonomy, and evolution. It emphasizes specimen-based research and features illustrations of the highest quality possible. Manuscripts treating all fossil organism groups are welcome, including invertebrates, vertebrates, plants, algae, and microorganisms of all sorts, as well as ichnofossils (trace fossils).

CONTRIBUTION TYPES

Articles are up to 40 printed pages. Authors are asked to pay as much page charges as they can for articles of all lengths. Paying extra page charges is mandatory for articles that run 26–40 pages. Please check with editorial staff for the current page rate charged by Allen Press.

Taxonomic Notes are for nomenclatural adjustments, normally to names previously published in *Journal of Paleontology*. This is not a venue, however, for petitions to overrule provisions in the codes of zoological or botanical nomenclature. Notes do not contain an abstract.

Memoirs are over 40 printed pages. Allow approximately 3.5 manuscript pages for each printed page. Authors must pay full page charges.

Because journal space is limited, manuscripts that demonstrate broad significance will be given a higher priority for acceptance. Those that simply describe a single new taxon (particularly a single new species) have a low priority—that a taxon is simply new to science or newly reported in a region is not in itself sufficient justification for publication. Splitting faunas or floras into a series of short descriptive manuscripts is less desirable than a more comprehensive contribution. Manuscripts giving just a catalog of taxa and only limited application are also given a low priority. Assessing the significance of manuscripts is ultimately at the discretion of the editors. It is assumed that all authors are responsible for the material, including the taxonomy.

The editors reserve the right to edit manuscripts for style, format, and conciseness. For geologic and scientific usage, follow reliable guides such as *Suggestions to Authors of the Reports of the United States Geological Survey* (seventh edition, 1991); for general usage, sentence structure, and punctuation *The Chicago Manual of Style* (fifteenth edition, 2004) and Strunk & White's brief handbook *The Elements of Style* (fourth edition, 2000); and American spelling in *Webster's Third New International Dictionary*.

GENERAL SUBMISSION REQUIREMENTS

- Manuscripts must be complete at submission, containing all information necessary for publication. Manuscripts found to be incomplete (e.g., missing catalog numbers, misnumbered figures, incomplete references, etc.) will be returned without review.
- Double-space the entire manuscript, including abstract, text, references, tables, figure captions, and appendices.
- Number all pages, beginning with the title page.
- Use a standard font for the text (e.g., Times New Roman, New York), 12 point only.
- Italicize genus and species names, but not other taxonomic names.
- Separate sentences with a single space after the period.
- Use formatting commands rather than spaces and tabs.
- Do not right-justify text.
- Do not break words with a hyphen at the right margin.
- Do not use footnotes.
- Figures and tables must be cited in consecutive order in the text.
- Use appendices for long tables or listings such as specimens examined and locality information. Whenever possible, appendices and tables will be published in the online Supplemental Data Archive to conserve journal space. (<http://www.journalofpaleontology.org>)
- Authors are encouraged to suggest potential reviewers upon submission.

FORMATTING THE MANUSCRIPT

File order for uploading.—

- **Cover letter file.** Outline why the manuscript is an important contribution and certify that the material is not under consideration by another journal.
- **Article file.** Preferably as a MS Word (.doc or docx.). Should not contain tables, figures, or images. Place all figure captions at the end of article file.
- **Table file(s).** Preferably as a MS Word (.doc or .docx) or MS Excel (.xls or .xlsx). Each table should be a separate file and should include table caption. Tables should be ordered as they are cited in the text.
- **Figure file(s).** Each figure should be a separate file and should not include its caption. Figure captions are placed at the end of the article file. For photographic images, TIFF (.tif) format is preferable; EPS or JPEG (uncompressed if possible) formats, or as Adobe Photoshop (.psd) are also acceptable. Line art can be prepared in any drawing program such as Adobe Illustrator (.ai). Be aware that

CorelDRAW (.cdr) files tend to cause the most problems in AllenTrack when attempting to merge files to create PDFs.

- **Appendix file(s).** Preferably as a MS Word (.doc or .docx) or MS Excel (.xls or .xlsx) for an appendix published in the print version. Each appendix should be a separate file. Appendices for online archiving may take any format.

The first page.—

- All margins should be 2.5. cm (1 in.).
- Do not use a separate title page.
- Center the title in all upper-case letters. Titles should be brief and incorporate key words that will be useful for indexing and information retrieval. They should not contain hyperbole, interrogative clauses, and more than one sentence.
- Center author's names in upper-case.
- Addresses are centered and capitalized (i.e., the first letter is in upper-case). Do not use abbreviations. Give complete mailing address for each author. State and zip code, province and postal code, or city and city code are not separated by punctuation. Permanent e-mail addresses should be given; place these within "greater than" and "less than" symbols (e.g., <jpaleo@si.edu>). Do not include phone or fax numbers.

The abstract.—

- The abstract should be an informative, stand-alone summary that provides pertinent details of the research and conclusions. It should not contain content-free statements about what was done in the research or what is in the manuscript, such as "will be described" and "will be discussed." Itemize all new taxa and new combinations. Do not include references.
- Position "ABSTRACT—" against the left margin and begin it with a complete sentence.
- Its length should be commensurate with the length and scope of the manuscript, but it should not exceed 250 words.
- Taxonomic Notes do not have abstracts.

Text headings.—

- *Journal of Paleontology* uses two levels of text headings. The first is centered and capitalized; the second is in italics and separated from the text by a period and two hyphens (--) or em-dash (—).

The introduction.—

- Center the heading "INTRODUCTION" in upper-case. THE TEXT of the introduction abuts the left-hand margin, with the first two words in upper-case (as shown in this sentence). Indent all subsequent paragraphs one tab.

Text usage.—

- See Comments on English at end.
- Abbreviate and capitalize references to illustrative material (e.g., Fig. 1.2; Table 2), but put in lower case those from other publications (e.g., Smith, 1990, fig. 4.3;

pl. 2, fig. 4), as well as in synonymies (see Systematic Paleontology below). Spell out if part of a sentence (e.g., “Figure 3 shows”, but try to avoid this kind of usage).

- Author names and dates are required after the first use of taxon name (with citations included in the references section). This applies also to taxa mentioned in paleoecological discussions, faunal lists, etc. even if not included in the Systematic Paleontology section.
- For new taxa (e.g., new species and genera), the terms “new species” and “new genus” are spelled out in full only in the heading within the Systematic Paleontology section. The abbreviations “n. sp.” and “n. gen.” are used on the first mention of the taxon within each major section, but are omitted thereafter within that section, as long as this does not introduce confusion.
- Spell out generic names at the beginning of sentences and when used with “sp.” In each major section, generic and subgeneric names may be abbreviated subsequent being given in full, if there is no chance of confusion. Generic names may be abbreviated when used in the combination as *Genus* sp. cf. *G. species*. Do not abbreviate specific and subspecific names.
- Formally proposed and accepted time and time–rock designations (e.g., Middle Ordovician, Late Cretaceous, upper Aptian) are capitalized, whereas informal designations (e.g., late Paleozoic, middle Cretaceous) are not, except when used as the first word in a sentence. For stratigraphic nomenclature follow the *North American Stratigraphic Code* (revised version, 2004) or the *International Stratigraphic Guide* (second edition, 1994).
- Use past tense for discussing published works [e.g., “Jones (1986) noted that”].
- When listing entries in a sentence, follow: 1)...; 2)...; and 3)....
- Use “sensu stricto” and “sensu lato” rather than “in the strict sense” and “in the broad sense” respectively. These terms only need to be spelled out in their first usage in the text; use the abbreviations “s.s.” and “s.l.” subsequently. Do not italicize these letters.

Numbers, measurements, dates, and sample sizes.—

- Spell out whole numbers zero through nine, except when associated with an abbreviated unit of measurement (e.g., 5 mm); use Arabic numerals for numbers 10 and greater. All numbers beginning a sentence are spelled out.
- Spell out measurement units when not accompanied by a numeral. Put a space between the numeral and unit of measurement (e.g., 5 mm).
- Ordinal numbers are spelled out (e.g., twentieth century).
- Convert Roman numerals to Arabic numerals (e.g., in reference to plates).
- Use “%” and “°” rather than spelling them out.
- Use the tilde “~” and “circa” (ca.) to express approximately when in front of a numerical measurement and age, respectively.
- Numerical ranges can be given as “size is 5–13 mm (with the numerals separated by an n-dash [–] rather than a hyphen [-]; “from” and “between” take sentence form (e.g., “size varies from 5 to 13 mm”; “size ranges between 5 and 13 mm”).

- Provide all measurements in metric units. If metric equivalents of English units need to be calculated do not add unintended precision such as by giving more decimal points than what could have been originally measured.
- Express dates as follows: 1 December 1998; “during the 1800s” (not “1800’s”); “from 1990 to 1995” (not “1990–1995,” not “1990 to 95,” not “1990–95”).
- Use capital “N” to designate sample size (e.g., N = 516).
- Use double quotation marks to delineate quotes and single quotation marks to flag a new term or the unconventional use of a known term.

In-text citations.—Follow these paradigms:

- (Smith, 1973) Use initials only if different authors have the same surname, e.g., (A. A. Smith, 1973; B. M. Smith, 1984).
- (Smith and Jones, 1973) Do not use an ampersand (“&”).
- (Smith et al., 1973).
- (Smith, in press) Papers that are “in press” (accepted for publication, but not yet published) may be included, but not manuscripts in review or in preparation.
- (Smith, personal commun., 1973) Year should be included. However, such information, as well as “personal observation” or “personal data,” should be avoided because the material or data is inaccessible to the reader.
- (Smith, 1973, p. 16) Page number is given for a direct quotation or to refer to a page in a book in order to facilitate searching.
- (Smith 1973a, 1973b, 1982) Multiple citations by same author are listed chronologically as years separated by a comma.
- (Smith, 1973; Walker, 1982) Multiple citations are listed chronologically, separated by a semi-colon.
- (Smith in Jones, 1973) This citation identifies a portion of the text written by Smith.
- (Smith cited in Jones, 1973) This citation identifies a communication to Jones by Smith. As noted above, this is best avoided. Moreover, this style of citation should not be used in place of referring to difficult-to-obtain publications.

LOCALITY AND REPOSITORY INFORMATION

Locality information must be provided for all specimens and collections that are described, illustrated, or evaluated, especially when new collections are studied. Collecting sites can be recorded using section and township coordinates, latitude–longitude, Universal Transverse Mercator, or other established coordinate systems. A generalized locality map or field photograph by itself is not adequate for this purpose. The stratigraphic context and position of all specimens and collections must also be clearly defined. This information should be included in a brief section about the geological or stratigraphic setting and summarized under the *Occurrence* heading within the Systematic Paleontology section. More detailed geographic and stratigraphic locality information is best recorded in an Appendix. Reference to previously published stratigraphic and paleontologic studies may be sufficient in many instances.

It may be appropriate to exclude locality information in order to protect certain rare or exceptional collecting localities (e.g., protection of some vertebrate fossil sites from unauthorized collecting or vandalism). In these cases, the locality information must be archived with the institutional collections and available to qualified researchers. On the other hand, precise geographic and stratigraphic information may not be available for certain older museum collections, even though such collections may have historic or systematic significance.

All illustrated and type specimens must be deposited in a publicly accessible, permanently curated museum or institutional repository and assigned unique catalog numbers. The status of additional material used must also be recorded. Repository catalog numbers need to be noted under the *Holotype* and *Material* headings within the Systematic Paleontology section and figure captions.

SYSTEMATIC PALEONTOLOGY

The *Journal of Paleontology* employs Linnéan nomenclature with designated ranks. The Codes of Zoological Nomenclature and Biological Nomenclature must be adhered to. For the various forms of open nomenclature follow: BENGTON, P. 1988. Open nomenclature. *Palaeontology* 31:223–227. Instead of overly derived identifications such as “new species A” (n. sp. A) it is usually better to use “species indeterminate” (sp. indet.).

- The introduction to this section is a good place to mention terminological choices and list the specimen repositories and their acronyms.
- Family and lower taxonomic ranks must be cited. Taxonomic ranks above the family level may be included, particularly if there is controversy regarding usage. Family or higher ranks may not be applicable to form-taxa in, for example, palynology and ichnology.
- Taxon author names and dates must be attached. Recall that the codes of zoological and botanical nomenclature differ somewhat in this regard. The original source must be included in References.
- Center taxonomic ranks, using rank nomenclature in lower-case, with the initial letter capitalized, and SMALL CAPS for taxon names, as follows:

Class CRINOIDEA Miller, 1821
Family SCYTALOCHINIDAE Moore and Landon, 1943
Genus PARASCYTALOCRINUS new genus
PARASCYTALOCRINUS VALIDUS (Wachsmuth and Springer, 1897)

Synonymy.—The sequence of topics under the species name begins with the synonymy. A complete synonymy is desirable, although reference can be made to earlier synonymies. Citations about the left margin, and subsequent lines are inset. Capitalize authors' names in reference to specific titles but not to name changes (see example below). For multiple authors use “and” in upper-case, not an ampersand (“&”). Use multiple authors' names, not “et al.” A semi-colon separates citations under one

name, and a period is placed at the end. Citations of plates, figures, and pages are abbreviated in the synonymy, and they are in lower-case. Example:

Scytalocrinus validus WACHSMUTH AND SPRINGER, 1897, pl. 7, figs. 2a, 2b, 3;
SPRINGER AND SMITH, 1900, p. 141, pl. 16, figs. 9, 10.

The citation below reflects a change in the generic assignment. *Scaphiocrinus repertus* was described by Miller and Gurley. Bassler and Moodey re-assigned *S. repertus* to *Pachylocrinus*; Miller and Gurley are then in lower-case behind *Pachylocrinus*. The current authors are re-assigning the species to *Lanecrinus*:

LANECRINUS REPERTUS (Miller and Gurley, 1890)
Figures 1.1–1.5

Scaphiocrinus repertus MILLER AND GURLEY, 1890, p. 45.
Pachylocrinus repertus (Miller and Gurley, 1890). BASSLER AND MOODEY, 1943, p. 883.

Follow the list of headings below to the extent that it is possible and appropriate. Section headings should be used consistently for all taxa treated.

Headings and heading order for a new genus.—Genus name followed by “new genus” (abbreviate to n. gen. after first usage in subsequent entries). A synonymy list can be dispensed with, and an explanation of the generic concept and context should go into the Discussion.

Type species.—Required. If the genus is monospecific, add “by monotypy.”

Other species.—Required, if applicable.

Diagnosis.—Required, in telegraphic style and in a standard sequence. Authors should ensure that diagnoses distinguish the taxon in question from all morphologically similar taxa.

Etymology.—Required (= Derivation of name in other journals).

Occurrence.—Recommended (= Distribution or Stratigraphic range in other journals).

Discussion.—Required (= Remarks in other journals).

In the case of previously described genera, the extent of the treatment may vary. Major revisions would likely include diagnoses and extensive discussions but other types of studies (e.g., biostratigraphic) might not (see below).

Headings and heading order for a new species.—Species name followed by “new species” (abbreviate to “n. sp.” after first usage in subsequent entries).

Synonymy.—Required, if applicable.

Diagnosis.—Required, in telegraphic style and in a standard sequence. A differential diagnosis is preferable to simply an abbreviated description. In the case of a

monospecific genus do not enter “as for genus” because the species is the tangible item: the characters of the species inform the generic concept.

Description.—Required. In telegraphic style and in a standard sequence. This section may be split into separate headings for different anatomical parts if desired. Reference to figures is permitted in description and diagnosis.

Etymology.—Required (= Derivation of name in other journals). Pay strict grammatical attention to the Latin (or Greek) endings.

Types.—Required: holotype and other type designations, repository acronyms, and catalogue numbers, followed by information on the geologic age, stratigraphic formation, and geographic location of type localities. Measurements of types if determined may better be published in the online supplemental data archive.

Occurrence.—Required (= Distribution or Stratigraphic range in other journals).

Discussion.—Required (= Remarks in other journals).

In the case of previously described species, in addition to the synonymy, the holotype, discussion, and likely a differential diagnosis, the extent of the treatment will vary. Avoid redundancy and unnecessary duplication of already published information if no new data or interpretation is presented.

ACKNOWLEDGMENTS

- Avoid excessive detail and superlatives.
- Use initials rather than given names and dispense with academic titles.
- Do thank the referees (by name if not anonymous).

REFERENCES

- A one-to-one correspondence must exist between works cited and those listed in the References.
- Make sure all citations are complete before submitting manuscripts. Incomplete reference sections can lead to manuscript return without review.
- In general avoid citing the ‘gray’ literature, i.e., conference abstracts, dissertations and theses, and field guides, because these are not peer-reviewed.
- First line of reference abuts left margin with all subsequent lines indented one tab-equivalent.
- Authors’ names are in all capitals. Put a space between initials. Spell out authors’ names in successive citations (instead of the line used in some other journals).
- Second and successive author names appear with initials before the last name.
- Author(s), year, and article title are separated by a period and one space.
- Capitalize titles of books, but use lower case for titles of articles within them. Do not italicize titles.
- Give the complete journal name.
- For pagination use “p.” not “pp.” and separate first from last page numbers with an n-dash, not a hyphen.
- The digital object identifier (doi) designation is not included.
- Examples of commonly cited materials:

Article in a journal.—

KAMMER, T. W. 1985. Aerosol filtration theory applied to Mississippian deltaic crinoids. *Journal of Paleontology*, 59:551–560.

- Give issue number only if each issue in a volume is paginated separately from p. 1.
- Give the series number if necessary.

Article in press.—

BROWER J. C. In press. Dendrocrinid crinoids from the Ordovician of northern Iowa and southern Minnesota. *Journal of Paleontology*.

- Complete such citations prior to publication if possible.

Article in an edited book.—

ELDREDGE, N., AND S. J. GOULD. 1972. Punctuated equilibria: An alternative to phyletic gradualism, p. 82–115. *In* T. J. M. Schopf (ed.), *Models in Paleobiology*. Freeman, Cooper, San Francisco.

FELDMANN, R. M., AND M. T. WILSON. 1988. Eocene decopod crustaceans from Antarctica, p. 465–488. *In* R. M. Feldmann and M. O. Woodburne (eds.), *Geology and Paleontology of Seymour Island, Antarctic Peninsula*. Geological Society of America Memoir, 169.

- Pages are cited after title of article, separated by comma. Put a period after pages.
- Capitalize and italicize “*In*.”
- All editors are listed with given name initials before surname. Designated editor as “(ed.)” and editors as “(eds.)” Follow both with comma before title of book.

Book and monograph.—

MAYR, E. 1963. *Animal Species and Evolution*. Harvard University Press, Cambridge, Massachusetts, 797 p.

DRAPER, N., AND H. SMITH. 1981. *Applied Regression Analysis* (second edition). John Wiley & Sons, New York, 709 p.

PRATT, B. R. 1992. Trilobites of the Marjuman and Steptoean Stages (Upper Cambrian), Rabbitkettle Formation, Southern Mackenzie Mountains, Northwest Canada. *Palaeontographica Canadiana*, No. 9, 179 p.

GILL, J. R., AND W. A. COBBAN. 1966. The Red Bird section of the upper Pierre Shale in Wyoming. U.S. Geological Survey Professional Paper, 393A:A1–A73.

- If the cited work comprises the entire monograph, then use “393A, 73 p.”

Section in the Treatise on Invertebrate Paleontology.—

LANE, N. G. 1978. Synecology, p. T343–T345. *In* R. C. Moore and C. Teichert (eds.), *Treatise on Invertebrate Paleontology*. Pt. T. Echinodermata 2. Geological Society of America and University of Kansas Press, Lawrence.

Dissertation or thesis.—

HAGEMAN, S. J. 1992. Morphometric approaches to systematics and microevolution: applications from Paleozoic Bryozoa. Unpublished Ph.D. dissertation, University of Illinois at Urbana-Champaign, 247 p.

Paper presented at meeting.—

LESPÉRANCE, P. J. 1984. Vincular furrows in some Early Silurian Phacopidae (Trilobita) from Canada. 27th International Geological Congress, Moscow, Abstracts 1:283–284.

SEILACHER, A. 1983. Precambrian metazoan extinctions. *Geological Society of America Abstracts with Programs*, 15(6):683.

- Give issue number if part of a regular series but paginated separately (as above).

Foreign languages.—Pay strict attention to diacritical marks in names and words. Titles in languages using the Roman alphabet are not translated. Transliterations or translations of titles in non-Roman alphabets are both acceptable but be consistent. For Russian transliteration follow the Library of Congress method. If the title is translated, then note the language thusly: “(In Chinese)”. It is not necessary to add “with English abstract.”

ELENKIN, A. A. 1938. *Monographia algarum Cyanophycearum aquidulcium et terrestrium infinibus URSS inventarum. Pars specialis (Systematica), Fascicle I.* Izdetelstvo Akademii Nauk SSSR, Moscow and Leningrad, 984 p.

GOROKHOV, I. M., M. A. SEMIKHATOV, AND E. P. DRUBETSKOI. 1991. Rb-Sr i K-Ar vozrast osadochnyh geochronometrov nizhnego rifeya Anabarskogo massiva. *Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya*, 7:17–32. (In Russian)

TABLES

- Wherever possible, tables should be prepared for the online supplemental data archive.
- Begin each table on a new page.
- Use only horizontal lines with a table, with a double line under the heading.
- Include table descriptions with the tables. The word “TABLE” is in upper-case against the left margin followed by the table number, which is italicized, and a double hyphen (or em-dash), as in the example below. Begin the text of the table description after the em-dash without a space. Subsequent lines are indented one tab-equivalent.

TABLE 3—Dimensions of articulate brachiopods and gastropods from the Platteville Group of northern Illinois.

FIGURE CAPTIONS

Figure captions follow the text in the article file. Format for specimen descriptions in captions is not fixed; however, information should include species name, specimen number and repository identification, and magnification, and they should be consistent. Author and date are required for the first mention of all genera and species within the figure captions section. Figure numbers are italicized and descriptions are separated by semi-colons. Example:

FIGURE 2—Photographs of figured specimens of calyces of *Rhaphanocrinus subnodosus* (Walcott, 1883) from Walcott-Rust Quarry, showing rounded calyx walls, strong median-ray and stellate ridges, numerous fixed brachs and pinnulars; all specimens from MCZ and coated with ammonium chloride: 1, 2, E ray of calyx and oblique basal view of calyx showing basal concavity, infrabasals, and rim around stem facet, E ray at base of figure, 172799, $\times 2.7$; 3, basal view of calyx with basal concavity, attached rounded stem segment with large round lumen covers the infrabasals and much of the basal concavity, D ray at base of figure, 172804, $\times 2.7$; 4, 5, C ray and CD interray of calyx and oblique basal view of specimen with attached stem segment, C ray at base of figure, 113449, $\times 2.7$; 6, 7, E ray of calyx and oblique basal view of specimen with attached stem segment, E ray at base of figure, 172800, $\times 2.7$; 8, lateral interray of calyx with proximal stem segment showing numerous nodose plates, 172797, $\times 3.2$.

FIGURES

The editors reserve the right to decide if figures are acceptable or not. Manuscripts may be returned to the corresponding author with the request to improve image quality before or after being sent out for review.

- Grayscale images and black and white line art are preferred. Color printing is possible, but authors bear all additional costs of production. Prepare these using CMYK color space.
- Use space economically in figures. Locality maps and stratigraphic sections should include relevant and essential information only.
- Use sans-serif lettering (Arial or Helvetica). Use boldface lettering sparingly.
- Be judicious with line weight in line art for maximum clarity.
- Do not put boxes around figures.
- “Figure” is used instead of “plate”; figures should be numbered consecutively in the order that each is referred to in the text.
- Each illustration within a figure is numbered consecutively from one (e.g., Figures 1.1, 1.2, 1.3). Different views of the same specimen may, at the discretion of the author, be designated with lower-case letters (e.g., Figure 1a, 1b, 1c).
- Figure dimensions (maximum):
 - full page 18 cm in width x 23 cm in height
 - double column 18 cm in width
 - single column 9 cm in width

- Specimens photographed under reflected light should appear illuminated obliquely from the upper left. Adjust tone and contrast so that images are uniform in these aspects; doctored images are not permissible. Orientation of specimen photographs should follow standard practice for the taxonomic group. Size (i.e., magnification) should reflect the minimum necessary required to see the key features.
- Crop unneeded background, as well as, if possible, technical specifications such as those often given in scanning electron microscopy.
- Background can be either white or black, depending on which best suits the images and what is standard practice with the fossil group.
- Depending on the nature of the figure, scale bars tend to clutter the figure and generally magnification is best given in the caption.
- Resolution (ppi = pixels per inch)
 - line art: 1200 ppi preferred; 600 ppi minimum
 - photographic image (grayscale or color): 600 ppi preferred; 300 ppi minimum
 - halftone (grayscale): 600 ppi preferred; 300 ppi minimum
 - halftone (black & white): 450 ppi preferred; 300 ppi minimum

COMMENTS ON ENGLISH

- Manuscripts must be written with correct spelling and syntax, and be **concise**.
- Break up run-on sentences and long paragraphs.
- Use separate sentences instead of parenthetical phrases.
- Common errors of grammar are: comma splices, mixing tenses, using “however” as a conjunction, confusing “its” and “it’s,” confusing “that” and “which,” and not putting in diacritical marks in foreign words or names.
- Avoid hyperbole, similes, metaphors, clichés, slang, contractions, rhetorical questions, content-free statements such as “are described,” journalistic phrases like “paleontologists discovered” or “geologists believe,” the imperative voice such as “note that” and “see text for detail,” redundancies such as “completely absent,” scaleless descriptors as in “highly lithified,” “vast majority,” and “very large” (unless there is sufficient context), value-judgements on objective facts, such as “excellent example,” self-evident ‘motherhood’ statements which express meaningless generalities that every paleontologist already knows to be true, overly long noun strings, and awkward use of passive voice (especially by referring to the author’s previous work as “the author”).
- Purists prefer to make the distinction between time and condition, such as “while” versus “whereas.”
- Avoid excessive use of acronyms.
- Use personal pronouns sparingly if at all, and do not use the “royal we” to refer to paleontologists or geologists in general.
- Some words in common usage are not scientific and may have baggage, such as referring to organisms as “life forms” and “creatures.”
- Finally, plagiarism is not tolerated.