

JOURNAL OF PARASITOLOGY

POLICY AND GUIDELINES FOR AUTHORS

The *Journal of Parasitology* is the official journal of the American Society of Parasitologists (ASP). The *Journal* is nonprofit and dues of the membership support the cost of publication. Manuscripts in English are accepted from investigators in any country regardless of whether they are members of the Society. The *Journal* publishes official business of the ASP and results of new, original research, dealing primarily with parasitic animals.

POLICY

Conditions of acceptance

Manuscripts are received by the *Journal of Parasitology* with the understanding that:

- 1) all authors have approved submission;
- 2) the results or ideas contained therein are original;
- 3) the work has not been published previously;
- 4) the paper is not under consideration for publication elsewhere and will not be submitted elsewhere unless rejected by the *Journal of Parasitology* or withdrawn by written notification to the editor of the *Journal of Parasitology*;
- 5) if accepted for publication and published, the article, or portions thereof, will not be published elsewhere unless consent is obtained in writing from the editor of the *Journal of Parasitology*;
- 6) reproduction and fair use of articles in the *Journal of Parasitology* are permitted in accordance with the United States Copyright Revision Law (PL94–533), provided the intended use is for nonprofit educational purposes. All other use requires consent and fees where appropriate;
- 7) the obligation for page charges and redactory fees is accepted by the authors.

Articles reporting original research, invited reviews, and research notes are evaluated by at least 2 anonymous reviewers selected by an associate editor. Critical comments are reviewed and published on the judgment of the editor. The final decision of whether to publish is made by the editor after reviews and opinions of the editorial board are considered.

Animal care and use

The ASP conforms to the **“U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training.”** Work involving vertebrate animals reported in any paper submitted to the *Journal of Parasitology* must have been conducted within the following guidelines adapted from a statement by The American Association for Laboratory Animal Science (1989, *Laboratory Animal Science* **39**: 267).

1) The transportation, care, and use of animals for research and teaching must conform with the appropriate national guidelines (in the U.S.A., the Animal Welfare Act) and other applicable laws, guidelines, and policies. Authors should refer to the Guide for the Care and Use of Laboratory Animals (U.S. DHEW Publication Number [NIH] 86–23, as revised in 1985 or subsequently).

2) Experiments using animals should be designed and conducted with full consideration given for their relevance to human or animal health, the acquisition of knowledge, or the welfare of society.

3) Animal species selected for experimentation must be appropriate for the results expected, and the number used should be the minimum justified by sound statistical analysis.

4) All experimental and maintenance procedures require the avoidance of creating conditions that would lead to animal discomfort, distress, or pain, consistent with sound scientific practices.

5) If animals are to be subjected to momentary distress or pain, appropriate anesthesia must be employed. Painful experiments must not be conducted on unanesthetized animals that have been paralyzed by chemicals or other procedures.

6) Animals used in experiments that cause chronic pain or distress must be killed as soon as the experiments are concluded.

7) Veterinary care for laboratory animals is essential. Animals maintained in the laboratory must be kept in conditions appropriate for that species and under conditions that contribute to their health and comfort.

8) All persons using laboratory animals should be well trained for the conduct of experiments on living animals.

9) When exceptions to these principles are required, decisions regarding animal use must be made by the appropriate institutional animal care and use committee.

10) The use of animals obtained from natural populations must be in accordance with regulations and policies of appropriate federal or state agencies.

Page charges and redactory fees

The first 3 pages of each published manuscript are without charge. The charge for pages in excess of 3 are \$45 per published page for articles with at least 1 author who is a member, and \$75 per published page for articles with no authors who are members. Nonmembers intending to publish in the *Journal of Parasitology* are encouraged to become members of the Society. The current annual dues are \$85.00 (students \$50.00 hardcopy and online, and online only \$20.00).

Authors are allowed up to 5 alterations free of charge. Each subsequent alteration costs \$5.00. Authors are reminded that added or removed characters may necessitate other corrections.

Plates not intended for printing on color should be submitted in back and white or half tones. For color plates, authors should provide appropriate instructions as to whether they should be reproduced in color in the on-line version only, or both the on-line and printed versions. Please note that the cost of a color plate is \$500 for printed copy, and \$75 for an online version only, and is the responsibility of the authors. Charges are subject to change without notice.

Return of materials

Papers not conforming to the *Journal* standards and formatting guidelines, including standards for figures, will be immediately returned to the author for appropriate modification prior to being subjected to the review process. Such papers will be treated as a new submission when the properly modified revision is received.

Forms of publication

Articles: The *Journal* publishes articles reporting original research, dealing primarily with parasitic animals.

Research notes: These represent discrete, definitive information (as opposed to preliminary results) that does not lend itself to inclusion in a typical, more comprehensive article. A new or modified technique may be presented as a research note only if the technique is not to be used in ongoing studies. Ordinarily, techniques are incorporated into the materials

and methods section of a regular article. The *Journal* **does not** publish notes that deal with host or locality records, except for the most unusual cases; if a prospective author has an exceptional case, he/she should first contact the editor to determine the paper's potential acceptability.

Review articles: Only invited reviews are published. Unsolicited reviews should not be submitted, but topics may be suggested to the editor or members of the editorial board.

Critical comments: Critical comments are for correcting errors of published fact, providing alternative interpretations of published data, or presenting new ideas based on published information.

Book reviews: Books having a broad interest to the membership of the Society are reviewed by invitation.

GUIDELINES FOR AUTHORS

Electronic submission

The *Journal of Parasitology* accepts papers submitted online using the **PeerTrack** system provided by Allen Press (<http://www.edmgr.com/jparasitology>). The only software required is Adobe Acrobat Reader (available free from www.adobe.com). First time users of the system are required to register for an account and will be assigned an account login and password. The account login and password are required for subsequent use of the system. The system allows authors to check the status of their manuscript and to add updated files. Access to manuscripts submitted electronically is strictly controlled by login and user privileges, thus assuring data security and confidentiality.

Text files should be submitted in Microsoft Word files (doc or docx), text, Postscript, and rich text. Use of the line numbering and page numbering features of your word-processing software will greatly facilitate review. **Do not submit the text of your manuscript as a PDF file.** Figure legends must be submitted in the manuscript and not as part of the figures themselves. Plates must not be embedded in the manuscript, but rather submitted as individual files uploaded into PeerTrack. After successful submission to PeerTrack, the manuscript will be assigned a tracking number and to an Associate Editor.

Articles

Manuscripts are to be organized in the following format and sequence, beginning with

that for the running head, numbered consecutively.

Running head: Provide the last names of authors (use et al. for more than 2) and a shortened title. The entire running head may not exceed 60 characters and spaces. Style: RH: JONES ET AL.—LIFE CYCLE OF *H. DIMINUTA*, or RH: JONES AND SMITH – LIFE CYCLE OF *H. DIMINUTA*

Title: Immediately after the running head give the title of the article (in all caps), names of authors, and address of the first author. Include the *e-mail* address, in italics, of the corresponding author only. The manuscript title and authors' names should be in bold type, and the same font size (preferably 12 pts) as the text. All other information should be in roman type, but not in bold font. Titles should be short and descriptive. Avoid “empty words” such as “preliminary studies on . . . and biology or ecology of . . .”. Do not use author and date citations with scientific names in the title. In the title only, numbers less than 11 are spelled out; numbers indicating papers in a series will not be accepted. Present addresses and addresses for remaining authors, if different from that of the first author, are given as footnotes, and are to follow the figure legend(s). Footnote designations are as follows: *, †, ‡, §, ||, #, ¶, **, ††. (See examples at end of guidelines.) Please note that while author names are in bold font, symbols denoting footnotes are not.

Abstract: This should follow the abstract of the paper must not exceed 400 words. The abstract should be factual (as opposed to indicative) and should outline the objective, methods used, conclusions, and significance of the study. The abstract is headed with the word abstract in capital letters, ending with a colon. Text is run in after the colon, is not subdivided into paragraphs, and does not contain literature citations.

Introduction: The introduction should **immediately** (no space) follow the abstract and should be un-headed. The introduction should establish the context of the paper by stating the general field of interest, presenting findings of others that will be challenged or developed, and specifying the specific question or hypothesis to be addressed. Accounts of previous work should be limited to the minimum information necessary to give an appropriate perspective. Do not use extra spacing between paragraphs in the Introduction, or throughout the text.

Materials and methods: This section should give sufficient information to permit repetition of the study by others. Methods and apparatus used should be indicated, but

specific brand names and models need to be mentioned only if significant. The source, e.g., city and state (if in the U.S.A.), both spelled in full, of special equipment or chemicals should also be given. If the source is outside the U.S.A., then the city and country should be given. Previously published or standard techniques are to be referenced, but not detailed. Generic descriptions should be given for unusual compounds used.

The primary heading for this section should be typed in all bold capital letters, starting at the left-hand margin of the page. The heading is unnumbered and ends without punctuation. Second-level headings in bold type should be on a separate line beginning at the left-hand margin. The initial letter of the first word is the only capital letter except as needed for proper nouns. These headings are unnumbered and end without punctuation. Third-level headings are indented for a paragraph, italicized, and end with a colon, also italicized. The initial letter of the first word is the only capital letter, except capitals needed for proper nouns. Text runs in immediately following this heading. Further subdivision should not be needed. If the materials and methods section is short, it should not be subdivided; it is unnecessary to provide headings, beyond the primary head, for a series of subsections comprising single paragraphs.

Results: This section should contain a concise account of the new information. Tables and figures are to be used as appropriate, but information presented in them should not be repeated in the text. Avoid detailing methods and interpreting results in this section. The results section may be subdivided and headed as for the materials and methods section.

Discussion: An interpretation and explanation of the relationship of the results to existing knowledge should appear in the discussion section. Emphasis should be placed on the important new findings, and new hypotheses should be identified clearly. Conclusions must be supported by fact or data. The headings and subdivisions, if needed, in this section are as described for the materials and methods section.

Acknowledgments: These should be concise. Ethics require that colleagues be consulted before being acknowledged for their assistance in the study. The heading for this section is as for the primary head described for the materials and methods section. Subdivisions are not used in this section.

Literature cited: Citations are arranged alphabetically. All references cited in the text must appear in the literature-cited section, and all items in this section must be cited in the text. Citation of unpublished studies or reports is not permitted, i.e., a volume and page number must be available for serials and a publisher, city, state, and full pagination for books. Abstracts not subjected to peer review may not be cited in the text or in the literature cited sections. Work may be cited as “in press” only when the paper has been accepted for publication. If absolutely necessary, a statement may be documented in the text of the paper by “pers. comm.”. The citation is indicated in the style: (X. Y. Smith, pers. comm.).

Personal communications do not appear in the literature-cited section.

Style in the text:

Allen (1989)

(Allen, 1989)

(Allen and Smith, 1989)

(Allen et al., 1989)

(Jones, 1987; Allen, 1989)—chronological

(Jones 1987; Allen, 1989; Smith, 1989)—chronological and alphabetical within year

(Jones, 1987, 1988a, 1988b, 1989)

Multiple authors with the same year of publication should be (Smith, Jones et al., 1988; Smith, Walker, and Jones, 1988), **not** (Smith et al., 1988a, 1988b)

Style in the literature cited section (note that indentations are no longer required):

Journal article, 1 author

Nollen, P. M. 1990. Chemosensitivity of *Philophthalmus megalurus* (Trematoda) miracidia. *Journal of Parasitology* **76**: 439–440.

Journal article, 2 authors

Edwards, D. D., and A. O. Bush. 1989. Helminth communities in avocets: Importance of the compound community. *Journal of Parasitology* **75**: 225–238.

Book

Schmidt, G. D., and L. S. Roberts. 1989. *Foundations of parasitology*, 4th ed. Times Mirror/Mosby College Publishing Company, St. Louis, Missouri, 750 p.

Chapter in edited book

Nesheim, M. C. 1989. Ascariasis and human nutrition. *In* Ascariasis and its prevention and control, D. W. T. Crompton, M. C. Nesbemi, and Z. S. Pawlowski (eds.). Taylor and Francis, London, U.K., p. 87–100.

Thesis or dissertation

Monks, W. S. 1987. Relationship between the density of *Moniliformis moniliformis* and distribution within the definitive host population. M.S. Thesis. University of Nebraska-Lincoln, Lincoln, Nebraska, 64 p.

Number of authors

If there are more than 10 authors, then include names of the 10, followed by et al.

Note that abbreviations are not used for titles or serial publications and that spaces appear between initials.

The literature cited section has a primary heading as described for materials and methods.

Footnotes: Footnotes are used only for the title page of regular articles to indicate authors' addresses and to whom correspondence should be sent. Those for tables are typed directly under the table to which they pertain. Footnotes appear at the end of the manuscript directly after the figure legends (see example at end of guidelines).

Tables: Tables are used only to present data that cannot be incorporated conveniently into the text. Ordinarily, values from statistical tests are not published as tables; tests employed and probability accepted for significance can be stated in the materials and methods section with significant differences indicated in tables by footnotes or in the text by a statement.

Tables must be designed to fit in 1 or 2 columns. Only rarely may they be designed to fit the height of a printed page. Generally, if the width does not fit the height of a typed page, the table is too wide. Tables may be continued on following pages to accommodate length, but pages cannot be photoreduced, single-spaced, oversized, or otherwise modified to contain additional material.

Tables are numbered with Roman numerals in a continuous series and so referenced, in sequence, in the text. Captions are typed above the data on the same page. Species names

are spelled out in full (and italicized) the first time used in each caption. All columns in a table must have headings, with the first letter of the first word and proper nouns capitalized, e.g., Number sampled, % Recaptured.

Horizontal lines should be avoided in the body of the table; vertical lines are not permitted. If symbols are necessary, the table must be prepared as a line drawing and treated as a figure. Use of letters and numbers as superscripts or subscripts is not permitted. Table footnotes must be used in the sequence that follows: *, †, ‡, §, ||, #, ¶, **, ††.

Figures: All figure captions are to appear consecutively after the literature cited section. Do not place figure captions on the same page as the figures. Each figure or plate of figures must have a caption. The caption is written in paragraph style, beginning with the word "FIGURE." Captions are typed in roman, except when italic type is required, e.g., a genus and species. For plates, a summary statement should precede the specific explanation of each figure. Avoid repeating information for each figure that can be placed in the summary statement. Genus and species names are spelled out in full the first time used in each caption. The caption must contain an explanation of all abbreviations used on the figures and indicate the value of lines or scale bars used to show size. Moreover, size should not be indicated by magnification in the caption because the figure might not be printed at the size calculated.

Figures & Plates

Plates should be submitted composed of one or more figures ready for final publication. **Please note** that all figures should be submitted as separate files and **not** as part of the text. Figure legends should not be placed on the plate, they should be at the end of the manuscript file directly after the literature cited section. With the initial submission for review, each plate must conform to *Journal* specifications for publication. Plates must be sized to 1 column (88 mm) or 2 column (182 mm) width, and must be no longer than 220 mm in height to leave sufficient room beneath for a figure legend (in case of very long figure legends, plates must be adjusted to allow for the legend). When composing plates, sizing of individual figures should be proportional to information content of the individual figure. Plates are to be arranged fully rectangular, such that figures are abutted tightly without extraneous unfilled white space and creating a full rectangle. Plates must be submitted in any one of the following styles: black and white line art, grayscale, or color. Plates submitted as black and white line

art, including line drawings, black and white graphs, and charts, must have a minimum resolution of 1200 dpi and must be submitted as TIFF, GIF, or EPS (postscript); bitmapped images will be returned to authors. Plates submitted as grayscale (halftone) photographs, charts, or graphs must have a minimum resolution of 300 dpi and must be submitted as TIFF, GIF, JPEG (quality level >9), or EPS. Plates submitted as color photographs, charts, or graphs, must have a minimum resolution of 450 dpi and must be submitted in CMYK. If color figures are submitted, please note that the cost of printing a color plate is \$500, and is \$75 for a version online. This is the responsibility of the authors. **Plates not intended for printing in color must be submitted in grayscale.**

All letters and numbers appearing on a plate must be in a sans-serif font, e.g., Helvetica, Ariel, Geneva, Gills-Sans, Lucida, or Verdana. All species binomina, such as those on phylogenetic trees, must be italicized. Non-scientific names, e.g., "sp." locality, strain, or reference label, must not be italicized. All figures in a plate are to be identified with a figure number or capital letter in the upper or lower left-hand corner, applied directly within the figure and without an added background, shadowing, outline, circle, period, or parentheses. At final print size, font height for numbers/letters identifying figures must be at least 4 mm and not more than 8 mm high. The font size used for labeling structures therein, must be at most two-thirds of the size of the numbers/letters used for identifying the figure and must be at least 2 mm high.

If possible, scale bars should be situated at the lower right-hand corner of the figure. Scale bars should be no thicker than 4 pts (or 1.4 mm at printed size) and normally would be at least 10 mm long and no longer than one-half the width of the figure being scaled. Scale bars (including those for substitutions on phylogenetic trees) may be labeled directly on the figure with their dimensions, bearing in mind that scale bars as generated by microscopic devices typically do not meet *Journal* standards for resolution or font specifications; alternatively, they may be defined in the figure legends. Separate figures in a plate may not share a single scale bar, except in the special circumstance in which all figures in the plate share the same scale.

Prior to submission each figure should be checked via VeriFig (<http://verifig.allenpress.com>) for resolution, size, and color mode. (Password: "allenpresscmyk")

The system requires author confirmation that all text and figure files have been converted correctly by PeerTrack. Please note that the conversion time may vary depending on file size.

Prior to review, the Graphics Associate Editor will examine the submitted paper to be certain that all figures conform to *Journal* specifications as described above. The Graphics Associate Editor will also evaluate the level of professional quality relative to what is expected for final publication. Manuscripts with figures that do not conform to *Journal* standards will be returned promptly to the author(s) for revision. **PLEASE NOTE:** Resampling poor resolution images to a larger size does not improve resolution. Resubmitted manuscripts that have merely re-sampled images to a larger size will be returned to the author again.

Taxonomic (Systematics) papers

Taxonomic papers have a distinct style that must be adhered to in preparing a manuscript. Single taxon papers will be considered only if presented in a comprehensive manner. A taxonomic paper should follow instructions given for a regular article, i.e., the title page, abstract, introduction, and materials and methods. In taxonomic papers, however, the results section is replaced by a section headed **DESCRIPTION** (or **REDESCRIPTION**, as the case may be), beginning at the left-hand margin and the DESCRIPTION is followed in the next line by the italicized scientific name in bold type; it begins at the left-hand margin. Synonyms and reference to figures follow, each as a separate line at the left-hand margin (these are not in bold font). The text of the Description follows as a new paragraph beginning with *Diagnosis*. The DESCRIPTION section must be written using a telegraphic style, i.e., do not employ prepositions, start sentences with the subject, and refrain from using verbs except as absolutely necessary. This DESCRIPTION is followed by a **Taxonomic summary** section, headed as described for second-level headings in the instructions for the materials and methods section. The Taxonomic summary section comprises a listing of the type host, other hosts, site, locality, and specimens deposited. Each of these topics is italicized, but not indented. The *Host* subsection must include the full scientific name of the host, the authority's name, and an indication if *Symbiotype* specimens were deposited in a vertebrate museum along with accession numbers. The *Locality* should include map coordinates, as well as the name of the locality, e.g., ocean, river, etc., and the geopolitical region. *Prevalence and density* data are included when known. Museum accession numbers for appropriate type

material (new taxa) and for voucher specimens (surveys) are required; the accession number of the museum must be preceded by the acronym of the appropriate museum. It is recommended that authors consider depositing one, or more, type or voucher specimens in the U.S. National Parasite Collection, Beltsville, Maryland, although this not a requirement for publication in the *Journal*. Appropriate photographic material should be deposited for descriptions of coccidia. Frozen tissues must also include accession numbers if deposited in a museum. In the case of phylogenetic studies involving, or based upon, molecular sequence data, novel nucleotide, or protein sequence data must be deposited in the GenBank Museum, and GenBank numbers must be obtained and added to the manuscript no later than the proof stage. The Taxonomic summary is followed by a **Remarks** section, headed as described for second level headings in the instructions for the materials and methods section. The Remarks section must include comparisons to all similar taxa so as to definitively distinguish new taxa from existing taxa; the section heading is typed in bold font and begins at the left margin. . The final section of a taxonomic paper should be the **DISCUSSION**, which includes a thoughtful dialogue regarding important considerations of phylogenetic position, molecular survey information, etc. It should be a synthesis section, placing the new findings in a phylogenetic and/or ecological context as appropriate.

Research notes

Manuscripts are to be organized in the following format and sequence with all pages, numbered consecutively.

Title page: Research Notes do not have a running head, but should be identified as such on the title page, i.e., RH: RESEARCH NOTE. On first page, give the title of the note in bold type and capitalize the first letter of all principal words. On a separate line, give the names of the authors, also in bold type, and capitalize only the authors' initials and first letter of the last name. The addresses currently are run in after the last author's name, with a comma in bold type separating the names and beginning address. Follow with addresses of the authors in roman type, joined by semicolons, matched to authors other than the first one by symbols like those used for regular articles. Begin all lines at the left-hand margin. Identify the corresponding author with an acceptable symbol; this is the person with whom the editor will correspond and to whom page proofs will be sent.

Abstract: An abstract is to be provided as described for articles.

Text: The text of a research note is written without sections and without extra spacing between paragraphs. Acknowledgments may be given, without heading, as the last paragraph. Literature is cited in the text as described for articles.

Literature cited, tables, figure captions, and figures: These items are in the form and sequence described for articles.

Review articles

Invited review articles should be submitted using the format described for articles, except that other section names may be used in place of the materials and methods, results, and discussion sections. Headings should be restricted to major headings and no more than 2 sublevels. Use of tabular data or figures from the work of others must be consistent with copyright law, and it is the responsibility of the author to supply appropriate permissions when the manuscript is submitted.

Critical comments

Manuscripts are to be organized in the following format and sequence with all pages, beginning with the title page, numbered consecutively.

CRITICAL COMMENT...

Title: Starting at the left-hand margin, give the title of the article in bold type and capitalized. Immediately following title, give the name of the author(s) in bold type.

Names and addresses of authors: These follow the title. The style is as described for research notes.

Text: The text is written without subdivision. Literature citations are made as for articles. Acknowledgments may be included as an un-headed final paragraph.

Literature cited: If citations have been used in the text, the literature cited section is as described for articles.

Tables, figure captions, and figures: When present, these are as described for articles.

Book reviews

Manuscripts are organized in the following format and sequence with all pages, beginning with that for the title, numbered consecutively.

Title: Give the title of the book being reviewed, and other critical information, in the

following style:

Toxoplasmosis of Animals and Man, by J. P. Dubey and C. P. Beattie. CRC Press, Boca Raton, Florida. 1988. 220 p. ISBN Number. Hardcover \$124.95.

Note that, unlike in the literature cited section, the first letters of principal words are capitalized. The words "edited by" are substituted for "by" when appropriate. The book title, etc., should begin at the left-hand margin.

Text: Begin as a new paragraph immediately following the book title. The text usually is not subdivided. If literature must be cited, a headed literature cited section follows the text in the style described for articles. Figures and tables should not be used.

Name and address of author: This information follows the text or, if present, the literature cited section. The reviewer's name should be in bold type; the address should follow, but not in bold type.

General points of style

Scientific names: The full binomen is written out at the first use of a species name. At subsequent use, the genus is abbreviated by use of the first letter, except at the beginning of a sentence where it is written out. Genera and species should be italicized, not underlined, throughout the manuscript. Author and date citations for scientific names need not be used in non-systematic papers. In systematic papers, author and date citations are used the first time a taxon is mentioned in the abstract and the text, but not subsequently except as described for tables and figures. Use must be according to the International Code of Zoological Nomenclature and should be consistent for all parasite and host species mentioned. Author and date citations used only as authorities for scientific names do not appear in the literature cited section.

Authors are reminded that names of taxa are not names of organisms, e.g., *Fasciola* is the name of a genus (a group of related species) and as such it does not lay eggs, ingest cells, possess a sucker, etc. These are properties of organisms.

Ecological terms: The terms prevalence, incidence, intensity, mean intensity, density, relative density, abundance, infrapopulation, suprapopulation, site, niche, and habitat are to be used as recommended by the ASP Ad Hoc Committee on the Use of Ecological Terms in Parasitology (1982, *Journal of Parasitology* **68**: 131–133); also see Bush et al. (1997, *Journal*

of Parasitology **83**: 575–583) for an expanded and updated treatment of ecological terminology.

Mathematical and chemical notations: Authors should attempt to write mathematical equations so that they can be set in 1 line of type. When 1 unit appears in a denominator, use the solidus, e.g., g/m²; for 2 or more units in a denominator, use negative exponents, e.g., g·m⁻²·day⁻¹. Manuscripts submitted to the *Journal of Parasitology* should conform to the same conventions as those used for chemical and biochemical/molecular nomenclature.

All chemical structures not accommodated by a single line of type must be drafted and reproduced as figures.

Use of numbers: In the text, numbers should be Arabic numerals except when beginning a sentence. Naked decimals are not permitted in the text, tables, legends, or on figures, i.e., 0.1, **not** .1. Numbers greater than 999 must have commas. Metric units are to be used in all articles. The 24-hour system is used to indicate time, e.g., 1500 hr.

Acronyms and abbreviations: At first use, acronyms are placed in parentheses following the name written out in full. At subsequent use, the acronym alone is used. An acronym may begin a sentence. Sentences may not begin with an abbreviation, and abbreviations are as recommended in the Council of Science Editors (CSE) style manual. The *Journal* uses all International System of Measurement (SI) metric unit abbreviations. Common CSE and SI abbreviations include the following (the same abbreviation is used for plural form):

wk (week)

hr (hour; use 0–2400 hr for time)

sec (second)

min (minute)

mo (month)

day (not abbreviated)

n. sp. (new species)

n. gen. (new genus)

L (liter; but ml for milliliter)

RH (relative humidity)

p.o. (per os)

s.c. (subcutaneous)

i.pl. (intrapleural)
i.p. (intraperitoneal)
PI (post-inoculation, or post-infection)
p. (page)
ad lib. (ad libitum)
U.S.A. (as a noun)
U.S. (as an adjective)
sp. gr. (specific gravity)
t-test
U-test
P (probability)
 \bar{x} (arithmetic mean)
r (correlation coefficient)
n (sample size)
SD (standard deviation of the mean)
SE (standard error of the mean)
df (degrees of freedom)
NS (not significant)

Basic SI units

Meter	m
Kilogram	kg
Second	sec
Ampere	A
Volt	V
Mole	mol

Prefixes for SI units

Factor	Prefix	Symbol
10^{-1}	deci	d
10^{-2}	centi	c
10^{-3}	milli	m
10^{-6}	micro	μ
10^{-9}	nano	n
10^{-12}	pico	p

10 ¹	deca	da
10 ²	hecto	h
10 ³	kilo	k
10 ⁶	mega	M
10 ⁹	giga	G
10 ¹²	tera	T

Miscellaneous: Unless stated otherwise, U.S.A. is understood for locations, including addresses of authors, and is not stated.

Words and abbreviations in Latin and other non-English languages, except for genus and species names, are not italicized. American spelling supersedes English spelling.

No and none are treated as singular, e.g., no worm was found. If this form is not satisfactory, avoid use of the words.

The suffix -like is hyphenated only in combination with a name in italic type or to avoid a triple l.

Studies involving sacrifice of animals are outside the scope of the *Journal*; however, many appropriate studies involve killing of animals.

Because manuscripts are accepted only with the understanding that the work was conducted in compliance with all relevant laws and within the ASP policy on animal care and use, a separate statement regarding animal care and use is not printed as a part of each paper. Likewise, use of the word euthanasia is redundant.

Papers are not dedicated to individuals. Dedication is only at the direction of the ASP Council and it is in the form of an entire issue.

Revising manuscripts

When manuscripts are returned for revision, a cover letter from the editor provides directions that must be followed carefully. A point-by-point statement of what has been revised and a brief rebuttal of those criticisms not addressed should be provided. All suggestions of the reviewers and the associate editor and editor must be addressed individually. Reviewers are usually kept anonymous and assigned numbers to retain anonymity. The revised manuscript and the author's comments may be reviewed again (by

the same referee[s]), subject to the discretion of the editor.

Retain a complete and exact copy of the manuscript, tables, and figures for reference.

Correcting proof and ordering reprints

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EXAMPLE FOR FULL-SIZED ARTICLE

The following presents a sample layout of the way in which your manuscript should appear for a full-sized article.

RH: NADLER ET AL.- GENETICS OF GEOGRAPHIC VARIATION IN *A. SUUM* (not to exceed 60 characters and spaces)

GENETIC STRUCTURE OF MIDWESTERN *ASCARIS SUUM* POPULATIONS: A COMPARISON OF ISOZYME AND RAPD MARKERS

Steven A. Nadler, Rachel L. Lindquist*, and Thomas J. Near

Department of Biological Sciences, Northern Illinois University, DeKalb, Illinois 60115. e-mail:

snadler@ucdavis.edu (the e-mail address is of the corresponding author ONLY)

ABSTRACT: Isozyme and random amplified polymorphic DNA (RAPD) markers were used to characterize the genetics of geographic variation among population samples of *Ascaris suum*. . . .

Molecular markers are of great potential utility for revealing intraspecific variation among parasite populations. (**Note:** This was the first sentence of the Introduction, that it is not preceded by a heading.)

By studying the genotypes or haplotypes of individuals. . . .

MATERIALS AND METHODS

Ascaris suum adults were collected from the intestines of pigs at a local meat processing plant. . . .

RESULTS

Isozyme data

Six of the 13 loci surveyed showed evidence of polymorphism; however, only 3 of the 6 variable loci showed sufficient enzymatic activity and resolution on gels to score. . . .

RAPD data and comparative analysis of markers

Of the 29 RAPD primers surveyed, 9 yielded amplification products that met both subjective. . . .

DISCUSSION

Isozyme data

Geographic variation: Relatively few studies have focused on the genetics of geographic variation among populations of parasitic helminths. In part, this is due to. . . .

Polymorphisms: A paradigm of parasite population structure is that parasitic organisms are characterized by small populations with high levels of inbreeding. . . .

Genetic drift

Genetic drift among *A. suum* infrapopulations may be promoted by their small effective

population size and founder effects. The overall sex ratio. . . .

ACKNOWLEDGMENTS

We are grateful to Mr. Don Temperly for assistance at FDL. . . .

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FIGURE 1. Random amplified polymorphic DNA fingerprints for 11 *Ascaris suum* individuals. . . .

FIGURES 2–4. Isozymes and infrapopulations. (2) Gels showing the genetic make-up of. . . . (3)

Comparison of 4 infrapopulations. . . . (4) Isozymes from *Ascaris suum*. . . .

*Department of Biology, Southeast Missouri State University, Cape Girardeau, Missouri 63701.

EXAMPLE FOR RESEARCH NOTE

The following represents a sample layout of the manner in which the file on your diskette should appear for a RESEARCH NOTE.

RH: RESEARCH NOTE

HEPATIC SARCOCYSTOSIS IN A HORSE

C. R. Davis, B. C. Barr*, J. R. Pascoe†, H. J. Olander‡, and J. P. Dubey§, Department of Anatomy, Physiology and Cell Biology, University of California, Davis, California 95616; *University of California, California Veterinary Diagnostic Laboratory, Davis, California 95616; †Department of Surgical and Radiological Sciences, University of California, Davis, California 95616; ‡Department of Pathology, Microbiology and Immunology, University of California, Davis, California 95616; and §Parasite Biology and Epidemiology Laboratory, Livestock and Poultry Sciences Institute, Agriculture Research Service, United States Department of Agriculture, Beltsville, Maryland 20705-2350. e-mail: jdubey@anri.barc.usda.gov (the e-mail address is of the corresponding author ONLY)

ABSTRACT: This report examines the phylogenetic relationships of *Tetrabothrium* spp. . . .

The various species of *Tetrabothrium* are examined within an evolutionary context (this constitutes the first sentence of the text).

If you wish to acknowledge, add without a title as an indented sentence immediately following the last paragraph of the RESEARCH NOTE.

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