

concise; include brief statements about the intent, methods, results, and significance of findings, and new taxa. Indicate systematic or nomenclatural acts but do not give diagnoses of new taxa in the abstract. The abstract is headed with the word "Abstract" (cap/lowercase) ending with a colon. Text is run in after the colon, is not subdivided into paragraphs, and does not contain literature citations.

**Keywords:** Following the abstract on a new line, begin with the phrase "Key Words" in small caps followed by a colon and a list of key words in roman type, sentence case. Provide key words (up to 10 or 12) for indexing and abstracting purposes. Include parasite and host names (both common and scientific names); major higher taxonomic group names (family, order, class, etc.); geographic localities or habitat names; interdisciplinary focus, major methods used, etc.

**Introduction:** The introduction follows the keywords **immediately on the next line** and is un-headed. The introduction establishes 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 appropriate context. Do not use extra spacing between paragraphs in the Introduction, or throughout the remaining text.

**Materials and methods:** This section provides information sufficient 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.), spelled in full, of special equipment or chemicals should also be given. If the source is outside of 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.

The primary heading for this section uses first-level format. Second- and third-level headings can be used to subdivide this section. If the materials and methods section is short, it should not be subdivided.

**Results:** This section is a concise account of new information. Tables and figures are used as appropriate, but should not repeat information in the text. Avoid detailing methods and interpreting results in this section. The primary heading for this section uses first-level format. The results section can be subdivided and headed to follow the materials and methods section.

**Discussion:** This section provides an interpretation and explanation of the results in the context of existing knowledge. Emphasis is placed on important new findings and new hypotheses are identified clearly. Conclusions must be supported by fact and data. The primary heading for this section uses first-level format. The discussion section can be subdivided and headed as 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. Authors should acknowledge funding sources and support; applicable collecting, import, or export permits; and, ethical approvals in this section. The primary heading for this section uses first-level format. Subdivisions are not used in this section.

**Literature cited:** The primary heading for this section uses first-level format. Citations are arranged alphabetically by

surname. 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. Abstracts not subjected to peer review may not be cited in the text or in the Literature cited section. 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. If there are more than 10 authors, then include names of the first 10, followed by "et al." Note that abbreviations are not used for titles or serial publications and spaces appear between initials.

**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, 2015; Allen, 1989, 2014; Smith, 1989)

**Single or multiple authors with the same year of publication:** Use letter designators to differentiate references as follows:

- 1) For 2-author references, include the names of both authors and use letter designators to differentiate multiple references from the same author pair in the same year.
- 2) For references with more than 2 authors, use the first author's name and letter designators to differentiate references (e.g., "Smith et al., 2015a" and "Smith et al., 2015b" instead of "Smith, Jones, Boyd et al., 2015" and "Smith, Jones, Scott et al., 2015").
- 3) Assignment of letter designators to references is set by their order of appearance in the Literature cited section.

**Style in the Literature cited section:**

**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.

**Electronic journal article:**

Song, I., and A. Semyanov. 2011. Tonic excitation is set by GABA conductance in hippocampal interneurons. *Nature Communications* 2: 376. doi: 10.138/ncomms1377.

**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.

**Published conference proceedings:**

Herman, C. H. 1964. Disease as a factor in bird control. In Proceedings of 2nd bird control seminar. Bowling Green State University, Bowling Green, Ohio, p. 112–121.

**URL:**

Format as follows: Author. Date. Title of article, page, database, etc. Available at: www.here.org. Accessed XX Month XXXX.

Caira, J. N., and C. Healy. 2006. Order Tetracystida Carus, 1863. In The Global Cestode Database. J. N. Caira, K. Jensen, and C. J. Healy (eds.). Available at: www.cestodedatabase.org. Accessed 16 January 2006.

**Software:**

Swofford, D. L. 1993. PAUP Phylogenetic analysis using parsimony, version 3.1.1. Software distributed by Illinois Natural History Survey, Champaign, Illinois.

**Figure captions:** All figure captions appear consecutively after the Literature cited section. Do not place figure captions on the same page as the figures.

- 1) 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., genus and species names).
- 2) Use bold for the leading element and individual figure references (see examples below).
- 3) 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.
- 4) Genus and species names are spelled out in full the first time used in each caption.
- 5) The caption must contain an explanation of all abbreviations used on the figures and indicate the metric value of scale bars used to show size unless the scale bars are labelled directly. Size cannot be indicated by magnification.
- 6) Abbreviations are arranged alphabetically following the final element as shown in the example below.
- 7) When a figure is published in color online and grayscale in print, authors must provide a single figure legend that adequately explains both the color and grayscale versions of the figure.
- 8) Examples:

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

**Figures 2–4.** *Baracktrema obamai* n. gen., n. sp. from the black marsh turtle. . . (2) Anterior body segment. . . (3) Body segment III. . . (4) Body segment IV. . . Abbreviations: common genital pore, cgp; ovary, ov; testes, t. . .

**Tables:** Tables are used only to present data that cannot be incorporated conveniently into the text. Tables should be designed and constructed so that their data are readily compared across rows and columns to reveal trends or relationships in the data that are not readily apparent in a figure.

- 1) Tables must be designed to fit 1-column or 2-column widths (88 mm and 182 mm, respectively). Wider tables can be

reproduced in landscape orientation. Tables may flow to multiple manuscript pages to accommodate length, but do not reduce line-spacing or font size to accommodate additional material.

- 2) 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,” “Jun–Aug”).
- 3) Horizontal lines are reserved for the table header; vertical lines are not permitted. Footnotes are used only for tables and appear directly under the table to which they pertain. Table footnotes symbols must be used in the following obligate sequence: \*, †, ‡, §, ||, #, ¶, \*\*, †† and should not be superscripted or subscripted. If other symbols are necessary, the table must be prepared as a line drawing and treated as a figure. Use of numbers as superscripts or subscripts is not permitted. Use of letters as superscripts or subscripts is restricted to indicating similarity or difference in statistical groupings.
- 4) 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, superscript letters, or in the text by a statement.
- 5) Names of months may be abbreviated in tables. When abbreviating months, use the first 3 letters of the month but omit a trailing period. Be consistent within tables (i.e., abbreviate no month or abbreviate all months).
- 6) 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.
- 7) Tables are subject to intensive typesetting, thus a) precise alignment of columns in the manuscript is not required; and, b) authors should check their tables carefully for typesetting errors in proof.

## FIGURES AND PLATES

### General considerations

**Figure standards and publication:** Figure reproduction in the *Journal* is almost identical to what is submitted; thus, illustrations must be prepared to the professional standards outlined below. Figures are directly redacted for typesetting and publication, thus they should be prepared at full publication size. Figures will be lightly redacted for style and sized to fit appropriately within the layout of the manuscript but flaws will not be corrected. Manuscripts containing figures that ignore the following specifications will be returned to the authors for appropriate revision prior to publication of the paper.

**Figure types:** Figures are individual graphs, line drawings, illustrations, or photographs; multiple figures may be combined into a single plate. Different figure types use different printing technologies and thus require different submission files.

- 1) Line Art includes charts, graphs, and line drawings often called “bitmap” images because they replicate ink-on-paper drawings and use only black and white pixels. Line art figures reproduce the finest lines and greatest details when printed