

## **GENERAL INFORMATION**

The *Journal of Herpetology* is a peer-reviewed scientific journal published by the Society for the Study of Amphibians and Reptiles four times a year. We publish work from around the world. Although all submissions must be in American English, we welcome an additional, second-language abstract. The *Journal of Herpetology* normally publishes manuscripts  $\leq$  6000 words, including title, abstract, body of manuscript, citations). Word count does NOT include appendices, tables, figures, and legends.

### **Suitable topics**

The *Journal of Herpetology* accepts manuscripts on all aspects on the biology of amphibians and reptiles including their behavior, conservation, ecology, morphology, physiology, and systematics, as well as herpetological education. We encourage authors to submit manuscripts that are data-driven and rigorous tests of hypotheses, or provide thorough descriptions of novel taxa (living or fossil). Topics may address theoretical issues in a thoughtful, quantitative way. Reviews and policy papers that provide new insight on the herpetological sciences are also welcome, but they must be more than simple literature reviews. These papers must have a central focus that propose a new argument for understanding a concept or a new approach for answering a question or solving a problem. Focus sections that combine papers on related topics are normally determined by the Editors. Publication in the Long-Term Perspectives section is by invitation only. Papers on captive breeding, new techniques or sampling methods, anecdotal or isolated natural history observations, geographic range extensions, and essays should be submitted to our sister journal, *Herpetological Review*. If you are not sure, contact the editors before submitting your work.

### **Ethics**

The *Journal of Herpetology* demands high ethical standards. Submitted work cannot include plagiarized or falsified data. Consult the [SSAR Ethics Statement](#) prior to submitting manuscripts. Authors are responsible for the legal and ethical acquisition and treatment of study animals. Minimally, these follow the joint herpetological society Guidelines for Use of Live Amphibians and Reptiles in Field Research ([http://iacuc.ucsd.edu/PDF\\_References/ASIH-HL-SSAR%20Guidelines%20for%20Use%20of%20Live%20Amphibians%20and%20Reptiles.htm](http://iacuc.ucsd.edu/PDF_References/ASIH-HL-SSAR%20Guidelines%20for%20Use%20of%20Live%20Amphibians%20and%20Reptiles.htm)). In addition, the Acknowledgments section must list the numbers of all collection or research permits required at the study location, export and import permits needed to move specimens across country borders, and Institutional Animal Care and Use Committee approval for the care of animals and study procedures used. When submitting their work, authors must certify they followed all necessary procedures. Submitted studies that deviate from acceptable practices will be rejected.

### **Transparency and Openness Promotion (TOP)**

Plagiarism, fraudulent data, or other nefarious acts have resulted in an increasing number of papers retracted from scientific journals (M. Roston: "Retracted Scientific Studies: A Growing List", Science Section of New York Times, 28 May 2015). In response, scientists studying human science have created guidelines to better ensure transparency and openness in their published papers. Following the example of other zoological or organismal-oriented societies, SSAR has adopted a general level of guidelines to help ensure transparency and openness in its published manuscripts (*citation*). When submitting a manuscript, authors must complete the TOP form, acknowledging their responses to these five items:

- 1) Citations: In addition to normal scholarly sources, all data sets, program code, and their references must be cited in the text.
- 2) Data & Research Materials: Authors will indicate whether they will make their raw data and research available to the wider scientific community, and if so, where they will be deposited.
- 3) Design & Analysis: Authors will follow and report the research design and data analysis standards specified by their discipline (e.g., ecology, systematics).
- 4) Preregistration of studies: The SSAR does not encourage authors to preregister (i.e., publish) their research proposal. If authors do, however, they will indicate where it was preregistered.
- 5) Replication: Ordinarily, the SSAR does not recommend submitting any level of replicate studies. An exception might be studying one or more populations over time to determine, for example, how accumulating changes in landscape or climate over decades have affected them.

### **Location Data for Threatened & Endangered Species and Voucher Specimens**

T&E Species: Publishing exact location data for populations of rare or endangered species of amphibians and reptiles can facilitate poaching of these animals and further exacerbate their vulnerability (Lindenmeyer and Scheele, 2017, *Science* 356:800–801). The *Journal of Herpetology* will publish regional or general location data, but not exact locations for rare, endangered, or other conservation-sensitive populations, or those especially vulnerable to poaching. Rather, readers interested in these populations may contact the authors of these studies for location data.

Other Species: Any population can be vulnerable to local interests unknown to the Journal Editors. If authors have reason to suspect their study populations would be vulnerable after publication of exact location data, they have the option to withhold such data.

Voucher Specimens: Voucher specimens collected during systematics studies (and their location data) are deposited into institutional collections. Researchers interested in these species will need to contact the responsible taxonomist and/or institutions for these exact location data.

### **Manuscript Preparation, Submission, and Acceptance**

*Preparation:* Follow the instructions provided below *carefully* (a current issue of the *Journal* will provide examples of correct formatting and style). Manuscripts incorrectly formatted may be rejected prior to peer review.

*Submission:* Submit your manuscript files electronically and submit your text and figure files separately. DO NOT email your manuscript files directly to the Editor. (***More details below in part O.***)

*Review Process and Acceptance:* A correctly formatted manuscript can shorten the review process and reduce costs to the Society. Manuscripts accepted for publication will contain credible, reliable science and communicate its message effectively through an organized structure and flow of ideas.

### **Language and Grammar (grammar, syntax, and active voice)**

Manuscripts must be written in active voice (e.g., “We studied...” NOT “...was studied”), using proper English grammar and syntax. Regardless of country of origin, we recommend that you ask a colleague to read the manuscript prior to submission, as an independent reader can often identify embarrassing problems before the review process begins. This is particularly important if your native language is not English. Finding an English-speaking colleague to provide a pre-submission review of your work, even if not in your area of expertise, will likely smooth the review process. Manuscripts that are badly

flawed grammatically will be returned to authors without review. To facilitate the publication of work from non-English speaking countries, scientists affiliated with SSAR provide a free service of pre-submission review. Contact details for these volunteers can be found at:

<http://www.ssarherps.org/pages/presub.php>.

### **Summary of Common Errors**

1. Title page, text sections, Literature Cited, or tables are improperly formatted (detailed formatting instructions appear below).
2. Papers are written in passive (rather than active) voice.
3. Files (including revisions) are sent directly to Editors rather than uploaded to the *Journal* website.
4. Figure files are imbedded in the text files rather than uploaded separately to the *Journal* website.
5. Authors not fluent in English fail to have an English-fluent colleague review and rewrite the manuscript (if the grammar is poor). This can result in rejection before peer review.
6. Authors fail to complete detailed responses to all reviewer comments. This can result in rejection.

### **Recent Changes**

1. Tables must be embedded in the text and not submitted as separate files.
2. Authors must complete the Transparency & Openness checkboxes before their manuscript will be reviewed or published.
3. Location data for T&E species and voucher specimens will be handled with greater discretion (see paragraph above).

## **FORMATTING DETAILS**

### **A) Overall Document Format**

The *Journal of Herpetology* publishes manuscripts that are no longer than 6000 words, including title and text (abstract, body of manuscript, citations). Word count does NOT include appendices, tables, figures, and legends.

- Double-space entire manuscript, including lit. cited, figure legends, table legends & contents.
- Provide 2.5 cm (1 inch) margins on all sides.
- Use 12 point font size.
- Number all manuscript pages consecutively.
- Provide line numbering starting at the title page and continuing to the end of the document.
- Left-justify the entire document.
- Do not break words and hyphenate at the end of lines.
- Italicize only genera and species, and for appropriate headings (as indicated below).
- Do not use bold-face for emphasis; instead, reword sentences to provide appropriate emphasis.
- DO NOT upload .pdf files.

### **B) Formatting the Manuscript by Sections**

Manuscripts are usually arranged in the following order: 1. Title page; 2. Abstract; 3. Key words; 4. Introduction; 5. Materials and Methods, Results, Discussion; 6. Acknowledgments; 7. Literature cited; 8. Appendices (not normally used); 9. Tables; 10. Figure legends; and 11. Figures.

**I) Title Page.**—The title page should include, in this order:

- “JOURNAL OF HERPETOLOGY”, centered
- The title, centered, which should be informative and concise
- The names of all authors, centered. Use numbered superscripts to distinguish author addresses. Do not leave a space between author name and superscript. Use commas to separate author information, placing them outside any superscripts. Example: Regina Smith<sup>1,4</sup>, Don Q. de la. Mancha, III<sup>2</sup>, and R. James Jones<sup>3</sup>
- The addresses of all authors, left-justified, italicized, matching superscript numbers above. Do not abbreviate states; include postal codes. Do name the country of residence (example: Alaska, USA). If different, authors may indicate present addresses. An e-mail address for the corresponding author is required.

Example:

<sup>1</sup>*Department of Herpetology, Japanese Museum of Natural History, Kyoto, Japan 605-0931*

<sup>2</sup>*Department of Zoology, University of Nebraska, Lincoln, Nebraska, USA 68588*

<sup>3</sup>*Present address: Departamento de Zoología, Universidad de México, 48290 Puerto Vallarta, Mexico*

<sup>4</sup>*Corresponding author. E-mail: Regina\_S@JMNH.Sci*

- LRH: (left running head). Spell out the name of a single author (example: Regina Smith); Use initials and last name for two authors (example: R. Smith and R. Weasley); Use “et al.” for more than two authors (example: R. Smith et al.)
- RRH: (right running head). Provide an abbreviated title of no more than 50 characters, including the spaces between words. Example: if the full title is “Ecology and Reproduction of Timber Rattlesnakes (*Crotalus horridus*) in Kansas”, the abbreviated title might be “Ecology of Timber Rattlesnakes”

**II. English-Language Abstract.**—The abstract should begin on a new page and summarize the major points of the paper clearly and concisely without requiring the reader to refer to the text. It is limited to 250 words. The abstract heading should be indented, followed by a period and an em-dash (example: Abstract.—Boreal Toads...).

**III. Second-Language Abstract.**—An additional abstract may be given just below the mandatory English-language abstract. It should be an exact translation of the English version and follow the same rules. The abstract heading should be indented, followed by a period and an em-dash. Use the equivalent word to “abstract” in the language chosen (example: Resumen.—Sapos...).

**IV. Key Words.**—Used for indexing the article in online databases (but not printed in the Journal), key words should be placed after the abstract on the same page. Second language abstracts should be followed by key words in that language. Careful selection will improve the visibility of your article.

- The phrase "*Key words:*" should be italicized, including the colon.
- Up to eight key words may be used to identify major aspects of the manuscript, such as the key methods, key variables, study locations, or study organisms.
- Including the organism's taxon (e.g., Family, Order, Clade) into the title or key word list can increase the likelihood of your paper being found during key word searches
- Do not repeat words that appear in the title.
- Key words should be listed in alphabetical order and separated by semicolons.
- Only the initial word in each term should be capitalized, unless it is a formal name. (example: *Key words:* Boreal Toad; Colorado; Disease; Survival).

**V. Introduction.**—The text should begin after the key words. Avoid unnecessary duplication with

material covered in the Discussion. Do NOT include a heading for this section.

**VI. Materials and Methods; Results; Discussion.**—Be concise but clear.

- The section heading should be centered.
- Secondary headings should be indented. Each major word should be capitalized and italicized.
- Follow the title with a period and an em-dash (Example: *Study Sites.*—Mesocosms were...).
- In any italicized heading, scientific names of species should not be italicized so that they stand out from other text. Example: “*Analysis of Paternity in Crotalus atrox*”.
- Do not use footnotes in the text.
- When citing  $\geq 2$  figures or tables, separate numbers with a comma (e.g., Figs. 6, 7; Tables 2, 3).

**VII. Acknowledgments.**—The text ends with the acknowledgments section. Be as concise as possible.

- Use a secondary heading. Spell “acknowledgments” with no “e” after “g”. (Example: *Acknowledgments.*—).
- Use initials instead of first names for individuals. Example: “We thank H. Granger...”
- Provide the numbers of all collection, research, export, and import permits, as well as Institutional Animal Care and Use Committee approval.

**VIII. Literature Cited**

The Literature Cited is one the largest sources of errors. Carefully follow all format instructions and examples below. Check a 2014 or later issue if anything remains unclear.

*General Instructions*

- All references cited in the manuscript must appear in full in the Literature Cited section, and all references in the Literature Cited section must be cited in the text of the manuscript.
- Do not include personal observations and unpublished manuscripts in this section.
- Double space the entire section.
- Do not bold, underline, or italicize text other than scientific names.
- Do not use manual line breaks or tabs. Use indents instead.
- Cite references in alphabetical order. Example: Jones comes before Smith.
- If you use bibliographic software to format citations, remove the fields from the submission copy (keep a copy of the original document containing the fields for revision purposes).
- If there are multiple same-year references by an author with various coauthors, list single-author references before those with a coauthor. List two-author references first and multiple coauthors last. Example: (Smith, 1998) is first, followed by (Smith and Jones, 1998), followed by (Smith et al., 1998).
- If the same author collaborated with different coauthors during the same year, order by the name of the junior authors. Example: (Smith and Bell, 1998) comes before (Smith and Jones, 1998).
- If there are multiple “et al.” references by the same author, in the Lit. Cited, list them in chronological order regardless of the number of authors or their identity. Example: “Smith, Bell, Zundermeier, and Jones 1848” comes before “Smith, Abrams, and Bell 1856”.
- Author names should be presented as “Smith, A. B.” or “Smith, A. B., III.” Spell out all author surnames, even if they are repeated from a previous reference
- Always insert a comma before the “and” that precedes the last author. Example: “Smith, A. B., and J. F. Bell” or “Smith, A. B., R. Q. Zundermeier, and J. F. Bell”

- Follow author names with the year of publication. Example: "Smith, A. B. 1769." If you are using a reprinted version, indicate this by listing both years. Example: "Smith, A. B. 1769 (1996)." For articles that are accepted, state "In press" in place of the year. Example: "Smith, A. B. In press".
- Do not capitalize the first word after a colon, unless it is a proper noun.
- Include all software packages used in the Literature Cited.

#### *Article in a Print Journal*

Provide the names of journals in full. Do not present issue number. List complete page numbers. Example: "Journal of Herpetology 32:246–257." Example: Baird, T. A. 2004. Reproductive coloration in female collared lizards, *Crotaphytus collaris*, stimulates courtship by males. Herpetologica 60:337–348."

#### *Article in an Online Only Journal*

Follow the format above but also provide the URL for the article. Example: "O'Donnell, R. P., and A. P. Rayburn. 2011. Biases in the protection of peripheral anuran populations in the United States. Herpetological Conservation and Biology 6:91-98.

[http://www.herpconbio.org/Volume 6/Issue 1/ODonnell Rayburn 2011.pdf](http://www.herpconbio.org/Volume%206/Issue%201/ODonnell%20Rayburn%202011.pdf)"

#### *Chapter in a Book*

Do not name the publication city. Provide the publication country. Example: Smith, A. T. 1994. Systematics of frogs and toads. Pp. 52–65 in J. Black and M. Lee (Eds.), Systematics of Amphibians and Reptiles. University of Kansas Press, USA.

#### *Book*

Do not provide the publication city. Do name the publication country. Example: Smith, A. T., and J. Jones. 1995. Physiology of Amphibians and Reptiles. Kluwer, Netherlands.

#### *Thesis or Dissertation*

Indicate the degree and university. Example: Smith, A. T. 1991. Behavioral Ecology of Turtles. Ph.D. Dissertation, Federal University of Sao Paulo, Brazil.

#### *Non-commercial Software*

Provide a named citation to the definitive description of the software. Example: for Program MARK: White, G. C., and K. P. Burnham. 1999. Program MARK: survival estimation from populations of marked animals. Bird Study 46 Supplement:120–138.

#### *Non Peer-Reviewed Technical Report*

Use only where unavoidable. Example: USGS (United States Geological Survey). 1998. National water quality assessment (NAWQA) program, water quality in the Ozark plateaus. Circular 1158.

#### *Non Peer-Reviewed Print Media*

Use only where unavoidable. Example: Guam Economic Review. 1998. Statistical highlights. Guam Economic Review 20:11–32.

#### *Online Reference*

Use WebCite® (www.webcitation.org) to archive the web site. Provide the regular citation, followed by

the archival site provided by the service. Example: Frost, D. R. 2004. Amphibian species of the world: an online reference. Available at <http://research.amnh.org/herpetology/amphibia/index.html>. Archived by WebCite at <http://www.webcitation.org/T8g8UVs14> on 4 July 2011.

## **IX. Appendices**

Appendices follow the Literature Cited section. They are optional and should be used sparingly. Appendices include detailed information not essential to the text but useful to readers interested in specific methods, formulae, computer code, large data sets, or the species examined in taxonomic papers. When used, the primary heading would be: Appendix (numbered 1, 2, 3 as needed), followed by secondary headings as needed.

## **X. Tables**

Tables are used to provide numerical information in a condensed form that does not duplicate material listed in the text or displayed in Figures.

- Table must be embedded in the document after the Lit Cited and before the Figure Captions.
- Use the same font size, double spacing, and abbreviations as elsewhere in the text.
- Place each table on a separate page. Number tables consecutively using Arabic numerals that match references to them in the text. Example: "Table 1." (this text is NOT indented).
- Legends should be concise but sufficiently detailed so that tables can be understood without reference to the text. Each legend should appear on the same page and above its table.
- Do not use vertical lines.
- Capitalize only the initial letter of the first word (e.g., "Average length").
- Do not use footnotes.
- If a Table is so long it extends beyond a single page, continue it on additional pages as needed. Insert "Table #, continued" at the top of each such page, followed by an empty line.

## **XI. Figures**

Figures provide numerical information in visual form without duplicating material listed in the text or displayed in Tables. Please check a recent issue for additional examples.

- Figure legends should be placed together, with three lines of space between each legend, and before the actual figures. They should be numbered in Arabic numerals in the same order as they are cited in the text. Each legend should be concise but sufficiently detailed to be understood without reference to the text.
- Each heading should begin with the word "Fig", followed by a period. Example: "Fig. 1." (this text is NOT indented).
- Use the same font size, double spacing, and abbreviations as elsewhere in the text
- When preparing graphics, follow the guidelines below and those provided by Allen Press ([http://allenpress.com/system/files/pdfs/library/apmk\\_digital\\_art.pdf](http://allenpress.com/system/files/pdfs/library/apmk_digital_art.pdf)).
- Figures with multiple parts should have each part labeled with a capital letters (A, B, C, etc.) and all parts of the figure should be submitted on a single page and in a single file.
- Figures may be black-and-white or color. Please use color discriminately, as not all figures require color.
- The *Journal* now provides color figures to authors at no additional charge. If color figures are desired, they should be submitted in color when the manuscript is initially submitted.
- Manuscripts that include a substantial amount of field data should include a figure (map) of the study area. Authors need not disclose exact study site locations (to protect sensitive species or areas). The figure should include sufficient detail (e.g., political

boundaries, major topographic features) so that readers can see where in the state, region, province, etc., the data were collected.

- Prepare figures at high resolution (minimum requirements: grayscale or color images at 300 dpi, line art at 1200 dpi).
- Submit graphics and artwork at full page size (do not exceed 21.5 × 28 cm). Make sure that it is sharp at the submission size. After reduction (usually to one or two columns), lettering in printed figures should be 1.5–2.0 mm high and decimals should be clearly visible. Authors will be charged for the extra work if the press has to request better version in the typesetting stage.
- All axes of graphs should be labeled, with a larger font size used for major labels than for minor or quantitative labels.
- Include a scale to indicate distance or size whenever appropriate.
- Do not use pictures taken from other sources without express permission. It is the responsibility of the authors to ensure that all copyright issues have been addressed.

**C) In-Text Citations.** Please read this section carefully, as errors in citation formats are common.

- Do not bold, underline, or italicize text
- Cite references in chronological order, using a semicolon to separate citations and a comma to separate author names from dates. Example: “(Smith, 1975; Black, 1987)” If there are multiple same-year references by the same author, list them as “(Smith, 2001a,b)”.
- Provide names for up to two authors “(Jones and Smith, 1987)”. For three or more authors, spell out the name of the first author, followed by "et al."; e.g., (Granger et al., 1990).
- If there are multiple same-year references by an author with various coauthors, list single-author references before those with a coauthor. List two-author references first and multiple coauthors last. e.g., “(Smith, 1998; Smith and Jones, 1998; Smith et al., 1998)”.
- If there are multiple references by the same author and coauthor, or multiple references with the same first author and two or more coauthors, list them in chronological order regardless of the number of authors or their identity. Example: “(Smith and Jones, 1848; Smith et al., 1856a,b; Smith and Brown, 1858)”.
- Limit citation strings to 3 or 4 of the most pertinent references.
- Special citations:
  - Cite papers accepted for publication as “(Smith, in press)” and place in the Literature Cited.
  - Manuscripts that have not been accepted should be cited as “(Smith, unpubl. data)” and should not be placed in the Literature Cited.
  - Cite unpublished observations as “(Potter, pers. obs.)”; do not list it in the Literature Cited.
  - Non peer-reviewed sources such as meeting abstracts and most web sites should be avoided if possible; however, dissertations and theses should be cited if the information has not also appeared in refereed form.
- Commercial software cited in the text must include the version and source; e.g., SPSS 13.0, IBM.
- Commercial equipment: provide the model and manufacturer; e.g., “HOBO U23 Pro v2 External Temperature Data Logger (Onset Computer Corporation)”. Do not include either in the Literature Cited.
- Non-commercial software such as Program MARK, provide a citation in the text (in this case, White and Burnham, 1999) and in the Literature Cited. Peer-reviewed electronic resources should be cited in the same manner as paper-based ones.
- Use WebCite® (a free service) to archive non-peer-reviewed web sites first. Enter the URL you

want to cite at [www.webcitation.org](http://www.webcitation.org). The system will create a "snapshot" of the webpage for future access. Cite as you would other sources. Example: (Smith and Brown, 2011).

- Whenever possible, place all citations at the end of the sentence rather than interspersed in the text. e.g., "Rattlesnakes are excellent subjects for research in many areas of biology (Klauber, 1972; Schaeffer, 1996; Schaeffer et al., 1996; Beaupre and Duvall, 1998)"

#### **D) Common and Scientific Names**

Both common and scientific names vary in time and space. To maximize the ability of readers to identify study organisms across the world and over time but allow authors maximum flexibility in choosing their preferred authorities:

- If taxonomy has changed within the last 10 years, the former name of the organism may be presented at the first use of the name [example: "*Aspidoscelis sexlineatus* (= *Cnemidophorus sexlineatus*)"]. Similarly, if your preferred taxonomic hypothesis differs from that of other authors, make sure to include the more commonly used name
- Species occurring in the United States and Canada: standard English names should be provided at first occurrence. Standard names of all reptiles and amphibians must be capitalized and used in the plural (example: Barking Treefrogs). Follow <http://ssarherps.org/cndb/>. For species in other parts of the world, common names are optional—follow an appropriate regional reference if available
- When referring to common names of species, common names must be used in the plural, not the singular, because a common name does not refer to a single entity, but a population of individuals. For example: Eastern Diamondback Rattlesnakes, not the Eastern Diamondback Rattlesnake. For more information, see De Queiroz, K. 2011. Plural versus singular common names for amphibian and reptile species. *Herpetological Review* 42:339–342.

#### **E) Numbers**

Always spell out a number used at the beginning of a sentence (Example: Twenty species...). Spell out all whole numbers less than 10, except as noted below.

- Use Arabic numerals:
  - For numbers of 10 or greater
  - When the number is followed by a unit of measurement. Example: "9 mm"
  - When the number is a designator. Example: "Experiment 2"
  - When a range of values is given. Example: "2–3 scutes"
  - When numbers of 10 or more are compared to numbers less than 10 within a sentence. Example: "The 7 frogs, 9 salamanders, and 20 lizards that we collected..."
  - Decimal values; if decimal value is < 1, use zero before decimal. Example: "0.5"
- Use commas in numbers with four or more digits. Example: "280" and "5,280".
- Avoid excessive significant digits. Example: when measuring length with a ruler where the smallest measurement unit is 1 mm, report mean values as "15.7 mm" and standard deviation as "1.4 mm".
- Numbers or letters in a list should be fully enclosed in parentheses. Example: Experiments (2), (3), and (4) failed; (1) did not.
- Geographic coordinates can be in any standard format, such as decimal degrees or UTM.
- Specify the datum for the geographic coordinates. Example: "datum WGS84"

**F) Measurement Units and Abbreviations.**—Follow the International System of Units (SI) throughout.

- Linear measurement: Millimeters = mm, Centimeters = cm, Meters = m, Kilometers = km
- Area: hectare = ha
- Volume: Milliliters = mL, Liters = L
- Mass: Grams = g, Kilograms = kg
- Time: Seconds = s, Minutes = min, Hours = h, Days = d, Week = wk, Month = mo, Years = yr. For time of day, use 24-hour clock. Example: 1300 h.
- Date: use Day Month Year with no commas, spelling out the name of the month. Example: “7 May 2006”.
- Temperature: Celsius, with space after number and with a degree symbol before the abbreviation for temperature scale. Example: “30 °C”.

**G) Statistical Abbreviations.**—

- Do not italicize Greek letters. Examples: “ $\alpha$ ”, “ $\chi^2$ ”
- Italicize all other statistical symbols. Examples: “ $r$ ”, “ $r^2$ ”, “ $F$ ”, “ $t$ ” (as in  $t$ -test)
- Sample size: lower case and italicized. Example: “ $n = 5$ ”
- Mean or average: use “ $\bar{X}$ ” (capitalized and italicized) or spell out the word “mean”
- SD = standard deviation, SE = standard error, CI = confidence interval; often indicated as “ $\pm$  SD”, “ $\pm$  SE”, “ $\pm$  3 SE”, 95% CI = 2.32–4.68, etc.
- All statistical tests should include the test statistic,  $n$  or  $df$ , and  $P$ -value denoted as follows:
- For most test statistics, degrees of freedom should appear as subscripts (e.g.,  $F_{2,18}$ ,  $t_4$ ). Otherwise, they can be reported as “ $df$ ” (e.g., “ $df = 8$ ”).
- Probability: capitalize and italicize. Example: “ $P = 0.003$ .” When not significant, provide the value, rather than using “NS” or “ $P > 0.05$ .” Example: “ $P = 0.43$ ”

**H) Mathematical Signs and Symbols.**—

- Separate mathematical operators by spaces on both sides. Examples: “ $\alpha = 0.05$ ”; “ $P < 0.025$ ”; “ $12 \pm 0.02$ ”.
- Separate a number from a symbol to indicate a mathematical operation. Example: “ $1 + 1 = 2$ ”.
- Do not use a space between the “-” and the “+” when indicating positive or negative values. Examples: “ $-2$  °C”, “ $+2$  mm”.
- The symbols for “similar to” and “nearly equal to” are not followed by space. Examples: “ $\sim 12$ ”, “ $\approx 24$ ”.
- Use “log” for log base  $x$  (e.g. log base 10 would be  $\log_{10}$ ) and “ln” for natural log
- Use “male” and “female” or “M” and “F” NOT the symbols ♂ and ♀.
- In mathematical functions, fences typically go in this order: { [ ( ) ] }

**I) Other Common Abbreviations.**—Standard abbreviations are listed below. Do not use other abbreviations without first defining them in the text and be consistent in your use throughout the manuscript.

- ca. = “circa” or “around”; lower case, not italicized, followed by period
- cf. = “compare with”; lower case, not italicized, followed by period
- e.g., = “for example”; lower case, not italicized, period after each letter, followed by comma
- i.e., = “that is”; lower case, not italicized, period after each letter, followed by comma
- N = chromosome number; capitalized, not italicized (different from sample size)
- SVL = snout–vent length; define this at first usage
- vs. = “versus”; can be abbreviated in lower case without italics, or can be spelled out

sp. nov. and gen. nov. = "new species" and "new genus"; lower case, no comma before these terms

pers. com. = personal communication

Spell out full the names of North American states. Example: "Colorado"

Capitalize and abbreviate the word "figure" (example: "Fig. 1") except when used in a sentence (example: "Figure 2 demonstrates. . .").

#### J) Dashes and Hyphenation.—

-Use hyphen for modifiers and two-word phrases used as an adjective. Examples: "20-ml syringe", "24-hour clock", "t-test results", "life-history strategy", but "20 ml of water" or "the life history of bullfrogs".

-Do not hyphenate "Non" words. Example: "Nonparametric".

-Other common prefixes such as neo-, co-, re-, are not hyphenated except where necessary to prevent misreading or ambiguity. Example: "relocated" means "moved away", but "relocated" is used to indicate that a radio-tracked individual has been found again.

-Avoid using long hyphenated phrases as adjectives For example, avoid "We used black, sticky-sloping-plastic-matting as substrate in the aquaria".

-Use commas to separate clauses, instead of hyphens. Example: "The town, which is more of a village, is the nearest place to buy supplies."

-Use en-dash, not hyphen for inclusive ranges of numbers or dates. Examples: "21–23 mm", "Pp. 52–65".

#### K) Other Common Word Usage.—Modern word processors include both spellcheckers and grammar correction options, but these are far from perfect. The list below contains some common problems and is far from comprehensive.

-*Affect* vs. *effect*: "Affect" is usually used as a verb and means "to influence, or have an effect on" whereas "effect" should usually be used as a noun that means an outcome or result

-*Because* vs. *since*: "Because" usually means "for the reason that" whereas "since" usually means "from a time in the past until now"

-*Because of* vs. *due to*: Do not use "due to" instead of "because of"

-*Farther* vs. *further*: "Farther" indicates a physical or measurable distance, whereas "further" indicates a figurative distance, such as in advancing, elaborating, or developing an explanation or argument

-*Infer* vs. *imply*: "Infer" means to deduce or conclude; "imply" means to hint or suggest.

-*That* vs. *which*: Usually, "that" is used with restrictive clauses. Example: "The snakes that we had captured" (the word "that" restricts the snakes being discussed to those that we captured). "Which" is used with nonrestrictive clauses. Example: "The snakes had all eaten frogs, which are common in the area" (the word "which" simply gives additional information about the frogs being discussed)

-*While* vs. *although* and *whereas*: "While" means "at the same time"; "whereas" or "although" should be used to indicate "in spite of" or "even though"

-*Therefore* vs. *thus*: "Therefore" usually means "as a consequence" or "for these reasons" whereas "thus" usually means "in this way" or "in that way"

-*Data*: The word "data" should always be used to indicate the plural (the singular is "datum"). Example: "The data are presented..."

-*Comprised of*: "comprised of" means "to contain". For example, "the whole comprises its parts". "Comprised of" should be avoided

-*Different from* is preferable to *different than* because it is consistent with how the word “differ” is typically used. Example: “Method A differs from method B in that...”

- L) **Specimens.**—If the study involved collection of specimens, provide accession numbers in the text. Use the Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology (<http://herpetologistsleague.org/dox/CollectAcronym-Sabaj10.pdf>) for museum abbreviations.  
-For taxonomic papers, see additional specific comments below.

M) **Special Considerations for Taxonomy Papers**

Taxonomy papers will follow the same sequence of sections as above. See recent journal issues for examples.

- Consult the International Code of Zoological Nomenclature (<http://www.iczn.org>) for guidelines to taxonomic descriptions. However, we encourage authors to follow closely the style, sequence, and terminology of other recent or major works on that group, in order to facilitate comparisons.
- Definitions of terms, museum abbreviations, and other codes used in text should be given in the Materials and Methods section. For standard museum codes see <http://129.128.82.178/ASIH/Codes.htm>
- When a broad review is needed, as with analysis of variation in widespread species, present such material prior to the formal taxon description.
- Taxon descriptions may appear in the Results section or follow the Discussion as a separate section entitled Systematic Accounts.
- Only new names are given in bold. Example: “*Uraeotyphlus gansi* sp. nov.”
- Below the name indicate, in parentheses, where illustrations and related information may be found “(Figs. 1–4, Tables 1,2)”
- Next, list prior names, in chronological order. Example: *Uraeotyphlus malabaricus* (Beddome, 1870) in part; Boulenger (1882:92), *Uraeotyphlus oxyurus* (Duméril and Bibron, 1841) in part; Pillai and Ravichandran (1999:74–77, map IX)
- Next provide information about the holotype. Example: “*Holotype.*— HUJ 3498, male, 20 October 2011, Jerusalem, Israel. Y. L. Werner (Fig. 1)”
- Information about Paratypes follows, organized by sex or geographical locality
- Other specimens examined can be listed here, under “Referred Specimens”, if the list is brief. Use an Appendix for a lengthy list. For all specimens listed, include locality data and museum numbers, but not date of collection. The current location of the specimens must be included.
- The following headings are also used, in this order:
  - Diagnosis.*—A concise summary of distinguishing characteristics and diagnostic comparisons to related species or ones with which the new taxon may be confused
  - Description of Holotype.*—An explicit description of all aspects of the type specimen, following the style of leading relevant authorities. Include information on linear measurements, color in preservative, and other relevant aspects
  - Variation.*—A summary (often in Table form) of evident variation among the holotype, paratypes, and other referred specimens, including reference to sexual dimorphism, geographic variation, or ontogenetic changes
  - Color in Life.*—A brief description of color in life, if known. We encourage publication of color images of new taxa
  - Etymology.*—Brief description of the origin and meaning of the new name and the

rationale for choosing it

*Distribution.*—Summary of the distribution of the new taxon

*Natural history.*—, *Ecology.*—, or similar heading for presenting information on habits, habitats, life history, etc. This section may be combined with the previous one and named "*Distribution and Ecology*"

*Tadpole.*—Description of the tadpole or larval amphibian stage, if known and relevant

*Remarks.*—Concise discussion of any additional aspects of the new taxon that are deemed important, such as evolution and phylogenetic relationships

## **N) Manuscript Submission and Processing**

Manuscripts **must** be submitted electronically using the web-based submission site. Please submit your manuscript in a WORD or other text file format (NOT pdf). Registration (free) is required to access the submission site. Although you do not need to be a member of SSAR to access the site or to submit a manuscript, we strongly encourage all authors to join the Society. **DO NOT email files to the editors.**

You will be required to enter manuscript information, author names, addresses, and affiliations, and answer several questions before you can enter manuscript files. The website can accept a range of text and graphic formats such as \*.doc and \*.JPG.

To prevent problems:

- Ensure that your document is formatted with North American letter page size (8.5 by 11 inches; 21.6 by 27.9 cm). Conversion to PDF format is otherwise likely to result in errors.
- Manuscripts can also be uploaded as PDF files, but these must be accompanied by the original word-processor files
- Upload each Figure as a separate graphics file. Figures should be in TIFF, GIF, JPG, Postscript, or EPS formats, not in PDF files
- The online system will automatically merge the files, in the order identified by the author, into a single PDF file for use by the Editor, Associate Editors, and reviewers
- You **must** approve the converted file before it is released for review. The conversion process may take several minutes
- As part of the submission process, a cover letter may be uploaded as a separate file. This purpose of this letter to the editors is to: 1) concisely (*50 words or less*) explain why the manuscript is unique and appropriate to the journal; 2) verify that the manuscript is not being considered for publication elsewhere and adheres to journal format and ethical expectations; and 3) share any other specifics that the authors wish the editors to know about, such as the names of recommended reviewers.

**Processing manuscripts can be a lengthy endeavor.** Submitted manuscripts are first checked for a general fit to the guidelines presented here. Manuscripts that do not follow this document will be returned to authors for corrections, and may be rejected outright. Manuscripts that meet the guidelines are passed on to the Editors, who assign an Associate Editor to handle the manuscript, identify reviewers, and recommend acceptance or rejection. The journal website automatically updates as these stages are reached – please check the website for the status of your manuscript. The initial review process currently averages three months, and about half of all manuscripts submitted are rejected. Most other manuscripts require some changes before the Associate Editor recommends acceptance. We strive to minimize processing time. Please be patient and limit queries regarding status to cases where a manuscript has been in review for more than six months. The editors will contact authors as soon as a decision is made about their work.

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