

THE SOUTHWESTERN NATURALIST

INSTRUCTIONS FOR AUTHORS

October 2024

New: Table of Contents Added (page 2)

The Southwestern Naturalist (a publication of the Southwestern Association of Naturalists since 1953) is an international journal published electronically that reports original and significant research in any field of natural history. This journal promotes the study of plants and animals (living and fossil) in the multinational region that includes the southwestern United States, Mexico, and Central America. Appropriate submission of manuscripts may come from studies conducted in the countries of focus or in regions outside this area that report significant findings relating to biota occurring in the southwestern United States, Mexico, and Central America. Publication is in English, and manuscripts may be feature articles or notes. Feature articles communicate results of completed scientific investigations, while notes are reserved for short communications (e.g., behavioral observations, range extensions, and other important findings that do not in themselves constitute a comprehensive study). All manuscripts (feature articles and notes) require an abstract in both English and Spanish. Manuscripts that are not in proper format will be returned to authors. Submitted manuscripts should be uploaded to the Journal submission site at Scholastica (<https://swn.scholasticahq.com/>).

Authors will be required to **indicate that submissions are for exclusive consideration by *The Southwestern Naturalist* and will be required to provide names and e-mail addresses of 3 potential reviewers for the submission.** For the 2024-2026 years, the Board of Directors has authorized that all costs for members will be covered by the society. You must remain a member from the time of submission to the time of publication for this time-limited fee waiver. For non-members, a \$10 submission fee and production costs (\$6 per 500 words and \$7 per figure or table) will be assessed. Information relating to membership is available on the web. Questions concerning publication in *The Southwestern Naturalist* should be addressed to the Managing Editor, Dr. John B. Pascarella, Department of Biological Sciences, Sam Houston State University, Huntsville, Texas 77341 (jbpascarella@shsu.edu).

New (Oct. 24). All submitted articles that are appropriate for the journal will be assigned to an Associate Editor (AE) who will solicit two independent reviews. The AE will recommend one of the following decisions: Accept without Revision, Revise and Resubmit (=Accept with minor or major revisions), or Reject. Most articles will require a Revise and Resubmit. Authors revising have three months to send in a revised version that will undergo a second review. Please include a separate file where you address the comments from the reviewers and AE along with the revised manuscript.

Once articles are accepted, they will be sent for Spanish abstract review and copy editing. These are to improve the clarity of the Spanish abstract (Resumen) and compliance with journal standards and best practices. Due to new typesetting requirements, beginning in 2024, *The Southwestern Naturalist* will begin using APA citation style in both the text and References section. Final typeset proofs will be sent to corresponding authors for final review. Papers will appear in the online journal shortly after final proof approval.

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GENERAL GUIDELINES

LANGUAGE AND GENERAL GRAMMATICAL STYLE:

Use English throughout the manuscript (except for the Spanish abstract required in all manuscripts, for literature available only in a language other than English, and for direct quotes in a language other than English).

Use active voice whenever possible and appropriate. If the subject of a sentence is doing the action, then the sentence is in active voice. If the subject of a sentence is the recipient of the action, then the sentence is in passive voice. In addition, use first-person whenever possible and appropriate because it generally is more accurate, more concise, and less likely to contain grammatical errors. For example,

Preferred: “We collected 26 specimens.” [first person, active voice]

Correct: “A total of 26 specimens was collected.” [passive voice]

Incorrect: “A total of 26 specimens were collected.” [passive voice]

The last sentence is grammatically incorrect because the subject of the sentence is “total” (a singular noun), not “specimens” (a plural noun that is part of a prepositional phrase). Grammar checkers in word-processing software typically do not catch this error because they refer back to the last noun preceding the verb.

Use of active voice and first person also will help limit use of nominalizations: verbs used as nouns by adding endings such as “-tion” or “-ment.” These sometimes are referred to as “smothered verbs,” and it is better to “activate” them. For example,

Nominalization: Collection of samples occurred 0900-1300 h.

Preferred: We collected samples 0900-1300 h.

Nominalization: Measurements of length of tail were taken for all specimens.

Nominalization: We took measurements of length of tail for all specimens.

Preferred: We measured length of tail for all specimens.

Keep words and phrases as close as possible to the words that they modify. Otherwise confusion can result. This often occurs with dangling participles: verbs that end in “-ing” that are used as adjectives. For example,

Incorrect: We documented reproductive behavior of minnows using underwater cameras.

Acceptable: Using underwater cameras, we documented reproductive behavior of minnows.

Preferred: We used underwater cameras to document reproductive behavior of minnows.

As written, the first sentence suggests that minnows use underwater cameras while reproducing (an activity worth documenting). This is because “minnows” is the closest noun to the participial phrase (“using underwater cameras”). In the second sentence, the participial phrase is closer to the word (“we”) that it modifies, which improves clarity. In the third sentence, the participial phrase was eliminated.

As you write your manuscript, remember that *The Southwestern Naturalist* has a broad audience, and people outside your area of expertise and your study area are likely to read your manuscript if it is published. Accordingly, avoid use of terms, jargon, and abbreviations not widely used across subdisciplines of natural history, and never do so without first defining them in your text as outlined elsewhere in these instructions.

MARGINS:

- Left and right margins: 3.0 cm (1.2 inches)
- Top and bottom margins: 2.5 cm (1.0 inch).
- Left-justify the entire manuscript; do not justify the right margin.
- Do not center headings.
- Do not number lines in the manuscript.
- Do add page numbers to the top right of page.
- Do not use tabs in the manuscript.

FONT:

- Use 12-point Times New Roman or equivalent font.
- Do not use **boldface** print anywhere in the text, tables, or figures.
- Do not use underlined text anywhere in the manuscript.
- Use *italics* font for:
 - 1) scientific names of species,
 - 2) statistical parameters (e.g., $n = 72$, $P < 0.005$, $F_{1,42} = 4.62$, $2.5 \pm 1.1 SE$),
 - 3) section subheadings (e.g., "MATERIALS AND METHODS--*Study Area*--"),
 - 4) addresses of authors.
- If you know how to use the "all caps" feature in your word-processing software, use it for the title. If not, the editor can format the title. Please do not use the "caps lock" key on the keyboard.
- If you know how to use the "small caps" feature in your word-processing software, use it for the following places. If you cannot use "small caps" feature, please use lowercase letters; the editor can do the formatting.
 - 1) section headings (e.g., ABSTRACT, RESUMEN, MATERIALS AND METHODS; note that the first letter is capitalized).
 - 2) names of authors in the References section (see examples below).
 - 3) headings for legends in tables (e.g., "TABLE 1--Summary of...") and figures (e.g., "FIG. 1--Map of...").

LINE SPACING:

- Single-space the entire manuscript, except as noted in section on "Organization of Manuscript."

SCIENTIFIC AND COMMON NAMES:

- Scientific names (genus or species) of all organisms other than domesticated animals must be written in full at their first use and at the beginning of sentences. Abbreviations of the generic name (single letter followed by a period and the specific epithet: e.g., *E. cragini*) may be used after first use if they do not lead to confusion with other taxa.
- Use of "sp." or "spp." following a genus is discouraged.
- Authorities of scientific names should not be used unless there is a specific reason for doing so (for example, taxonomic confusion might result without the authorities).
- Common names may be used throughout the manuscript after each has been linked to a scientific name.

PROPRIETARY NAMES:

- Proprietary (brand) names of products should be followed (in parentheses) by manufacturer, city, and state (no abbreviation) or country (if outside the USA) on first use.

NUMBERS, MEASUREMENTS, AND TIME:

- Use numerals for numbers ≥ 10 and with all units of measure, except at the beginning of a sentence or when one or more numbers in a sentence are ≥ 10 (e.g., seven darters, 3 mm, 5-fold, 8-12 weeks; 2 males, 3 females, and 42 of unknown sex).
- Spell out ordinals (e.g., first axis, seventh month, third edition).
- Use commas in numerals with four or more digits (e.g., 4,700 and 10,350).
- Use the metric system, except for exact quotes or lists of collecting localities that were recorded using non-metric units.
- Dates are written in a sequence from smallest unit to largest unit, and a comma is not used to set off the year (e.g., 7 June 2002).
- Use 2400 time system (e.g., 0830 h = 8:30 a.m., 2300 h = 11:00 p.m.).
- Use abbreviations for light and dark when reporting photoperiod (e.g., 14L:10D).
- See the list of abbreviations that do not need to be defined on first use.

PUNCTUATION:

- Use hyphens as substitutes for “to” or “through” (e.g., use “8-12 weeks” or “MarchJune”). When hyphens can lead to confusion, especially when negative values are involved, use “to” (e.g., use “-14 to 7” rather than “-14-7”).
- Limit use of the slash (/) to connect words. Use a hyphen instead (e.g., “presenceabsence” rather than “presence/absence”).
- Do not use hyphens to split words at the end of lines in manuscripts.
- Compound words used as adjectives are generally hyphenated when they precede the word they modify (e.g., “150-m transect” or “transect was 150 m”), unless they contain an adverb ending in -ly (e.g., “carefully preserved specimen”).
- Avoid use of nouns as adjectives or adverbs.
- Use a colon to express ratios with no space on either side (e.g., 2:1 sex ratio).
- En dashes (“double hyphens”) are used to separate headings, but no spaces or periods are placed on either side of the en dash (e.g., “RESULTS--We collected 121 taxa...” or “TABLE 1--Summary of...”). These will be converted automatically.
- Use a comma after each item in a series, including the word that precedes the “and” before the final item in the series (e.g., “...algae, aquatic invertebrates, and fishes.”).
- Avoid use of quotes in text, unless you are quoting a passage from another publication. When including a quote, provide the page number in the citation (e.g., Wilson, 1997:203), with no space between the year, colon, and page number.

USE OF SYMBOLS:

In addition to characters in non-English alphabets, many commonly used symbols are available in word-processing software. Some examples of their preferred use in your manuscript are listed below.

- Use the symbol for degrees ($^{\circ}$), not a superscript “o.”
- Use the symbol for plus-or-minus (\pm), not an underlined plus ($\underline{+}$).
- Use the “micro” symbol (μ), not a lowercase “u” for metric units (e.g., μL).
- Use the “less than or equal to” and “greater than or equal to” symbols (\leq and \geq), not underlined symbols for “less than” and “greater than” (\leq and \geq).
- Use the lowercase Greek chi (χ) for chi-square (χ^2).
- Use spaces around all operators for equations and statistical expressions (e.g., type $n = 72$, $P < 0.005$, not $n=72$, $P<0.005$). No space is used between the mathematical symbol and number if no statistical parameter precedes the number (e.g., temperatures $>30^{\circ}\text{C}$).
- Use the symbol once for a range of measurements (e.g., 6-83%; 14-17 $^{\circ}\text{C}$; 27.3 \pm 2.4 mm).
- Do not put spaces between characters in locality abbreviations or temperatures (37 $^{\circ}$ 40' N, not 37 $^{\circ}$ 40' N; 23 $^{\circ}\text{C}$, not 23 $^{\circ}$ C).
- If essential to your presentation, symbols for males (σ^{σ}) and females (φ^{φ}) may be used in column headings in tables, but not in the text.

ABBREVIATIONS:

- Abbreviations, as a general rule, should be avoided as a courtesy to the readers who are not familiar with the study area or subdiscipline.
- Abbreviations for long names may be used if defined on first use and used more than five times in the text, e.g., “Quivira National Wildlife Refuge (Quivira NWR).” In these cases, spell out the specific location within the name in the text (e.g., Quivira National Wildlife Refuge = Quivira NWR, not QNWR; Big Bend National Park = Big Bend NP, not BBNP).
- Units of metric measure, time, and percentages (%) are abbreviated only when they follow a number (e.g., “37 g” or “weighed to the nearest gram”) or they are used in the header column or header row in a table, e.g., “Total length (mm).”
- Listed below are some acceptable abbreviations for units of measure (partial list), statistical parameters (partial list), and other uses. These do not need to be defined on their first use. Because the symbol for mean (\bar{x}) is not currently available in Microsoft Word (except through the equation editor), spell out the word “mean” to avoid errors when your Word document is converted to the publishing software.

The following abbreviations may be used without definition in manuscripts. Additional units of measure and widely used statistical symbols also may be used.

μm = Micrometer
ppm = parts per million
s = second
mm = Millimeter
ppt = parts per thousand
min = minute
cm = Centimeter
 μmhos = micromhos
h = hour
m = Meter
 μS = microSiemens
US\$ = US dollars
km = Kilometer
% = percent
Mex\$ = Mexican pesos
ha = Hectare
 χ^2 = chi-square
mg = Milligram
df = degrees of freedom
g = Gram
n = number in sample
kg = Kilogram
P = probability
ml = Milliliter
SD = standard deviation
L = Liter
SE = standard error
 $^{\circ}\text{C}$ = Degrees Celsius

pers. comm. = personal communication
pers. observ. = personal observation
N, S, E, W = when used for localities (e.g., 40°12'36"N or T12S, R40W)
Fig. = Figure (“Table” is not abbreviated)
USA = United States of America (but do not use U.S.)

ca. = *circa* – about, approximately

cf. = *confer* – compare (not equivalent to “see,” as in “see Jones, 1984”)

e.g., = *exempli gratia* – for example

et al. = *et alii* – and others

i.e., = *id est* – that is

n litt. = *in litteris* – in correspondence, used for unpublished “gray” literature (e.g., “P.F. Jones, in litt.”)

ORGANIZATION OF MANUSCRIPT (see example at end of these guidelines)

With regard to the following guidelines, the difference between **NOTES** and **FEATURE ARTICLES** is that **NOTES** do not include section headings (e.g., MATERIALS AND METHODS, RESULTS). Both must have an English abstract and a Spanish resumen.

CORRESPONDING AUTHOR

This person will work with the editors on revisions and receive proofs. The corresponding author is indicated in the submission through Scholastica. Failure of the corresponding author to meet deadlines could delay online publication of the manuscript.

TITLE (see example at end of these guidelines)

- Type the title flush left.
- Use the “all caps” feature of the word-processing software on all words in the title or leave the words in standard uppercase and lowercase letters, and the editor will format them.
- Do not begin titles with articles (a, an, the) or phrases that are unlikely to be useful in searches of the literature (first record of, observations on, notes on the).

AUTHORS (see example at end of these guidelines)

- Type names of authors flush left in capital and small capital letters (e.g., JOSÉ L. ORTEGA) or leave the names in standard uppercase and lowercase letters, and the editor will format them.
- Place an asterisk (*) after the name of the corresponding author (and after the comma if there are three or more authors).
- Type addresses of authors in italics and flush left.
- Do not abbreviate anything in the address, except “P.O.” and the two-letter abbreviation(s) for states.
- If there is more than one address, indicate in parentheses the appropriate author(s) by initials (without periods) at the end of each address. Do not use superscripts.
- At the end of the address section, type “*Correspondent:” in italics, followed by the email address of the corresponding author.

ABSTRACT AND RESUMEN (see example at end of these guidelines)

- Each should be one brief paragraph <3% of the total length of the text portion of the manuscript.
- Use the “paragraph format” feature of the software (not the space bar or the tab) to indent 1.2 cm (= 0.5 inch) and type “ABSTRACT” followed by a double hyphen (--) and the text of the English abstract. Do not put spaces between hyphens and words.
- Repeat the process above for the “RESUMEN” (Spanish abstract).
- Sentences in the English abstract and Spanish resumen should match as closely as possible; do not omit, add, or alter any sentences in one and not the other.
- Do not use computerized translation software to produce the resumen; the software is not accurate. Find a person fluent in both languages (e.g., language teacher) to help you.
- Do not include citations or statistical results in the abstract or resumen.
- Do not include keywords.

TEXT OF MANUSCRIPT (Headings are used in feature articles only.)

- Use the “paragraph format” feature of the software (not the space bar or the tab) to indent the first line of all paragraphs (including those with headings) 1.2 cm (= 0.5 inch). □ Do not use a heading for the introduction.

- Primary headings (MATERIALS AND METHODS, RESULTS, DISCUSSION) are typed in capital and small capital letters and followed by a double hyphen (--). Do not put spaces between hyphens and words.
- Secondary headings are typed in uppercase and lowercase letters, italicized, and followed by a double hyphen (--). Do not put spaces between the dash and the words. For example:
- MATERIALS AND METHODS--*Study Area*--We randomly chose collection sites... □ *Collection and Analysis of Data*--We obtained data using the method described by... □ Avoid use of nouns as adjectives or adverbs.
- Generally, past tense should be used in MATERIALS AND METHODS.
- RESULTS should be free of interpretation of data.
- Care should be taken to insure that the DISCUSSION is not a rehash of RESULTS.

ACKNOWLEDGMENTS

- Do not use a heading for acknowledgments.
- Use the “paragraph format” feature of the software (not the space bar or the tab) to indent the first line of the paragraph 1.2 cm (= 0.5 inch).
- Do not include lists of persons, cooperating agencies, or organizations unless they contributed directly to the project.
- As a professional courtesy, consult colleagues for permission before acknowledging their assistance.
- Include initials of first and middle names and full last names of people (do not spell out first names).
- Do not use other abbreviations, unless they are defined somewhere in text.

REFERENCES

- Due to publisher typesetting limitations, beginning in 2024, all citations will use APA style format. Please visit APA style website for information on required format.

<https://apastyle.apa.org/style-grammar-guidelines/references/examples/>

The Mendeley guide is also a great resource

<https://www.mendeley.com/guides/apa-citation-guide/>

TABLES

- There should be about three single-spaced manuscript pages per figure or table.
- Table legends should be written to stand alone.
 - Be sure to spell out names of genera and other abbreviations, even if they have been used in the text.
 - Be sure to include relevant locations, dates, etc. that were included in the text.
- Place each legend at the top of its table (do not include legend as the first cell of tabulated data).
- Format for the table legend is: TABLE 1--Activity of...
 - The first line is indented 1.2 cm (= 0.5 inch).
 - There is no period after the number.
- There are no spaces before or after the double hyphen.
- Columns and rows of tables must be composed of cells (use table construction function of software). Do not use tabs to construct tables.
- Use horizontal lines to separate the table header row from the data.
- Use blanks or 3-dashes (---) to indicate that no measurement was taken or no observation was made. Zeros in tables indicate that something was measured, and a value of zero was obtained.

- Footnotes in tables should be referenced in text and below the table (after last row of cells) with a superscript letter (e.g., ^a).
- Do not use lines to separate rows or columns of data in tables.
- Do not use shading, **bold font**, or underlined words in tables (use *italics font* as appropriate).
- Tables should be placed at the end of the text file following Literature Cited (each table on a separate page). Do not submit tables as Excel files.

FIGURES

- Limit the use of shading on figures, especially histograms and similar figures. High contrast is best for publication.
- Figures must be no larger than 215 by 280 mm and must be able to withstand reduction to one or two columns; thickness of lines and size of symbols must be chosen carefully. Check a reduction of your figure to be certain that lines and text are readable after reduction. Keep white space around borders and between components of figures to a minimum.
- Resolution guidelines (minimum): color or grayscale 300dpi, combination of color or grayscale with text 600dpi, line/bitmap, text, and lines 600dpi (1200 dpi is optimal). Resolution is accurate only if the image is the size intended for publication. Quality will decrease if image must be enlarged.
- Figures with multiple parts (e.g., 1a, b, c—use lowercase letters) must all be placed as a single figure. Please stack figures with multiple parts for printing within one column width, when possible.
- All figure legends must be placed in sequence on a separate page(s) at the end of the text file following tables.
- Figures may be submitted as part of the text file (following the list of figure legends). However, final figures used for publication must be jpg or tif files. Figures with multiple parts (a, b, c, etc.) must be prepared as a single figure. □ Refer to figures in text using the following format: (Fig. 2)
- Legends should be written to stand alone.
 - Be sure to spell out names of genera and other abbreviations, even if they have been used in the text.
 - Be sure to include relevant locations, dates, etc. that were included in the text. □ The format for the legend is:
FIG. 1--Frequency of...
 - The first line is indented 1.2 cm (= 0.5 inch).
 - There is no period after the number.
 - There are no spaces before or after the double hyphen.

COMMON CHANGES MARKED ON MANUSCRIPTS:

- The most common recommendation for manuscripts under review is that they be shortened. Be as concise as possible without sacrificing clarity.
- Avoid use of nouns as adjectives or adverbs.
- The words “might” and “can” are not synonymous with “may.” Use “can” in reference to a documented ability.
Use “might” in reference to an undocumented possibility. Use “may” to indicate permission.
- Do not use “since” or “as” as synonyms for “because.” For example,
Use: “We omitted 1998 from our analysis, because there were insufficient data from that year.”
Do not use: “We omitted 1998 from our analysis, since there were insufficient data from that year.”

Do not use: “We omitted 1998 from our analysis, as there were insufficient data from that year.”

- Do not use “hanging hyphens.” For example,
Do not use: “inter- and intra-specific competition”.
Use: “interspecific and intraspecific competition.”
- Avoid unnecessary use of the word “different” in phrases such as “five different species.” Obviously the five species were different; you cannot have “five same species.”
- Compass directions north, south, east, west, and their combinations should not be used as adjectives. The adjectival forms preferred are northern, southern, etc. (e.g., use “northwestern Kansas” rather than “Northwest Kansas”).
- Do not use vague words such as “very,” “quite,” “roughly,” “rather,” etc. If some indication of scale is necessary, use words or phrases that are as specific as possible.
- Do not use “and/or”. For example, *Do not use:* “March and/or April,”
Use: “March, April, or both.”
- Do not use possessive nouns unless it is a proper name. For example,
Do not use: “bird’s diet.”
Use: “diet of the bird.”
- Use the phrase “human-made” rather than “man-made.”
- Use “elevation” for height above sea level of earth-bound features; use “altitude” for airborne objects.

EXAMPLE FORMAT OF RESEARCH ARTICLE

Feature Articles

LATE PLEISTOCENE TORTOISE (*GOPHERUS*) FROM A CAVE IN THE SIERRA VIEJA, CHIHUAHUAN DESERT, TRANS-PECOS, TEXAS

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ABSTRACT

We present Late Pleistocene tortoise (*Gopherus*) fossils recovered from the dry Spirit Eye....

RESUMEN

Presentamos los fósiles de *Gopherus* de tortuga del Pleistoceno tardío recuperados de la...

The extant gopher tortoises (Testudinidae) are a group of fossorial, endemic tortoises with a rich fossil record in North America (Auffenberg & Franz, 1978). However, their...

MATERIALS AND METHODS

New Tortoise Locality—The new tortoise locality is Spirit....

RESULTS

Window Shaft B Excavations—The test pit was placed next to the limestone wall and measured 25 by 50 cm. The composition of the surface layer included packrat dung and....

DISCUSSION AND CONCLUSIONS

The Late Pleistocene (Rancholabrean Land Mammal Age) records of *Gopherus* in the arid Southwest are represented in...

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EXAMPLE FORMAT OF NOTE

Notes

AGGREGATE MATING BEHAVIOR OF SYMPETRUM DRAGONFLIES IN COLORADO AND WYOMING WILDFIRE PERIMETERS

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ABSTRACT—Aggregations of dragonflies engaging in copulation were observed in *Sympetrum internum* dragonflies and potentially other *Sympetrum* species. On four separate occasions....

RESUMEN—Se observaron agregaciones de libélulas participando en copulación en libélulas *Sympetrum internum* y potencialmente en otras especies de *Sympetrum*. En cuatro ocasiones diferentes.....

Dragonflies exhibit remarkably diverse pre- and post-copulatory mating behaviors, including ritualized flight contests with rivals, tandem flight of copulating pairs, non-contact mate guarding during oviposition, and even feigning death to avoid harassment (Corbet, 1999).

(NOTE THAT NOTES GO DIRECTLY INTO BODY OF TEXT WITHOUT SUBHEADINGS)

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