Conservation Biology
Style Guide for Authors

Manuscript Specifications

Word count
Conservation Biology tries to balance the depth of each article with the number of articles that we can publish. Papers must not exceed the following word counts even if reviewers have asked for additional material. The number of words includes all text from the first word of the Abstract through the last word of Literature Cited; it does not include tables or figure legends. The Abstract must not exceed 300 words. Do not include an abstract with Comments or Diversity pieces.

- Contributed Papers: 6000 words
- Research Notes: 3000 words
- Reviews: 7500 words
- Essays: 6000 words
- Conservation Practice and Policy: 5000 words
- Comments: 2000 words
- Diversity: 2000 words


Number of tables and figures (supporting elements)
Include no more than one supporting element (i.e., table or figure) for every four pages of text (from the Abstract through the Literature Cited). If a table or figure has only a few data points, incorporate the data into the text. Each supporting element should be on a separate page.

Appendices and supporting information
We rarely allow appendices in the print version of the journal. Detailed data or methods typically should be provided as Supporting Information that will be available online and posted in association with the online version of the paper. See Supporting Elements below for further information.

Manuscript Sections

Organization
Contributed Papers, Research Notes, and Conservation Practice and Policy papers should contain the following sections and be arranged in the following order: Abstract, Introduction, Methods, Results, Discussion, Acknowledgments, Literature Cited. Tables, Figure Legends, and Figures, if included, follow the Literature Cited. Do not combine sections (e.g., Results and Discussion). Do not number section headings or subheadings. Do not include a Conclusion section (conclusions are part of the Discussion).
**Title**  
Most people will decide whether to read a paper solely on the basis of its title. Indexing and abstracting services and internet search engines also depend heavily on the information conveyed by the title. Titles should be clear and concise. Do not use hanging titles (those with a colon), titles that are complete sentences, interrogative titles, and titles that reference colloquialisms or popular culture.

**Abstract**  
The Abstract should summarize the Introduction, Methods, Results, and Discussion in that order. Key points from each of these sections should be identifiable within the Abstract. The Abstract should not include literature citations, much data, or phrases such as “We discuss . . .” or “We summarize . . .”

**Keywords**  
Include five to eight words or phrases that will be useful for indexing and literature searches. Avoid general terms such as conservation.

**Acknowledgments**  
Do not spell out first (given) names. Provide the first initial of the first name, even if the initial starts a sentence. Refer to authors of the manuscript by their initials only (e.g., “S.T.W. was supported by a grant from the Torry Foundation”).

**Footnotes**  
Do not use footnotes in the body of the manuscript.

**Literature Cited**  
Provide the full names of all journal titles. Do not italicize titles.

Use boldface for the journal’s volume number and the colon following the volume number. Do not provide an issue number unless pages in a volume are not numbered consecutively from the first issue to the last issue.

Remove Inc., Co., and so forth from references in the text and Literature Cited. For example, (SAS Institute 1998), not (SAS Institute, Inc. 1998).

If there are more than 10 authors, use et al. (Howard, G., et al.) instead of listing the names of all authors.

Papers in review and personal communications should not be included in the Literature Cited.

Proceedings and abstracts from conferences may be cited only if they have a “publisher” and the location of the publisher (or the organization from which the document may be obtained) can be provided.

**Example Citations**
**Journal articles:**


If a paper is in press, the “in press” follows the volume number: Ecology 112: in press.

**Institutions as authors:** Spell out name of the institution and include the publisher’s location (or the location of the institution, if the institution issued the publication). The way the institution is cited in the text and in the Literature Cited must be the same.


**Online journals:**


No access dates are needed for citations of online journals.

**Internet sources other than journals:** Include the name of the organization hosting the website, their geographical location, and an access date.


Supporting Elements (Tables, Figures, and Supporting Information)
Content
Tables and figures should be self-explanatory and should supplement rather than duplicate the text. Do not present large amounts of data in tables. A reader should be able to interpret tables and figures without referring to the text. Consequently, all abbreviations and terms unique to the paper must be defined in the figure legend or in the table caption or footnotes. Common statistical notations need not be defined (e.g., CI, SD, SE). Use the same terminology in supporting elements and in the text.

Citation in text
Provide a summary or generalization of data and cite supporting elements parenthetically: “Models for species abundance were highly significant and explained 78% to 92% of variability (Table 2),” rather than “Table 2 shows the outcome of models of species abundance.” Abbreviate (“Fig.”, not “Figure”) unless Figure is the first word in a sentence.

Tables
Legends should be one sentence long. Use the legend to describe the contents of the table as it relates to the topic of the manuscript. A list of the table’s columns or row headings is not an informative table legend. Use footnotes to provide more-detailed descriptions of row and column headings, for more information about specific data, and to define terms.

Too little information: “Results of extract tests.” “Analysis of variance F values, treatment means, and habitat means.”

Too much information: “Anti-Candida, -leishmania, and -tumor activity of extracts from 11 species of sea cucumber. NA indicates no activity (IC_{50} ≥ 500 µg/ml against Candida and leishmania, IC_{50} ≥ 80 µg/ml against LoVo cell line). The * denotes that these activities are significantly different from those obtained from extracts isolated from the same species taken from the southern region.”

Define abbreviations in a footnote even if they are already defined in the text.

If there is only one footnote, use an asterisk (*). If there is more than one footnote, use letters (a, b, c). Order footnotes alphabetically from left to right and from top to bottom.

Do not use bold type. Do not use grid lines.

Unless an entry is a complete sentence or a proper noun, capitalize only the first word of the first entry in a row and do not use periods.

Do not split tables into separate sections (e.g., Table 1a and Table 1b). Make separate tables (Table 1, Table 2) or combine data under the same columns or rows.

Use indentation to set off secondary (or tertiary) entries within a column (see example below).

Table 1. Logistic-regression models built with . . .
<table>
<thead>
<tr>
<th>Variable</th>
<th>Symbol</th>
<th>$p$</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>General model</td>
<td>$f_g$</td>
<td>0.0015</td>
<td>3</td>
</tr>
<tr>
<td>landscape ruggedness</td>
<td>rug</td>
<td>0.0113</td>
<td></td>
</tr>
<tr>
<td>forest cover (%)</td>
<td>bosque</td>
<td>0.0085</td>
<td></td>
</tr>
<tr>
<td>Human model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>human population</td>
<td>pob1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significance level of coefficients . . .
*Next-most parsimonious models at . . .

**Figures**
Figures must be of sufficient quality and resolution to remain clear at 60% reduction. Before publication, you will be required to supply figures in TIF, EPS, or PDF. Resolution should be at least 300 dots per inch (dpi); 600 dpi is preferable for figures with lettering.

*Conservation Biology* cannot waive page charges for color figures. Color figures cost $700 per page.

The legends for all figures should be grouped on a page that precedes the figures. Do not place a figure and its legend on the same page.

Scale bars and compass direction must be provided for maps.

**Graphs**
Label all axes and include units of measure in the label: Number of species/km$^2$, Basal area (m$^2$/ha).

Capitalize the first letter of the axis labels: Years since burn, Burned area (%), Burned area (ha), Seed production (seeds/plot).

Include a key in the figure itself rather that describing shading or shapes in the figure legend.

Match typeface and type size among figures. On a graph, the type size of axis labels and units of measure should be similar.

If a figure has more than one panel, use lowercase letters to designate the parts: (a), (b), (c). Each panel must be referenced clearly in the figure legend by its letter.

If units along the x-axis are long, orient them at 45 or fewer degrees.

All numbers along an axis must have the same number of significant figures: 1.0, 2.5, 2.0 (not 1, 2.5, 2).
The label for the y-axis should be oriented vertically to the left of the units (reading from bottom to top), and units should be horizontally oriented.

Center the labels along both axes.

Do not enclose graphs in a square.

Do not use color on a figure that will be published in black and white.

**Supporting Information**
Supporting Information (i.e., online appendices) should be cited parenthetically in the text of the paper. After the Acknowledgments, provide a brief description of supporting information in the following format:

Supporting Information

XXX (Appendix S1) and XXX (Appendix S2) are available online. The authors are solely responsible for the content and functionality of these materials. Queries (other than absence of the material) should be directed to the corresponding author.

**Language and Grammar**

**Clear language**
Our audience is broad and international. Clarity in language and syntax is important, especially for readers whose first language is not English. Please avoid colloquialisms and jargon. If English is not your first language, we strongly recommend that you ask a native English speaker with experience in publishing scientific papers to proofread your manuscript.

**Terminology**
Some common terms in conservation science have multiple meanings (e.g., biological diversity [avoid biodiversity], wildlife, connectivity, stakeholder). Provide definitions of such terms and of specialized terms at first use in the Abstract and in the body of the paper.

**Abbreviations and acronyms**
Do not begin a sentence with an abbreviation. Use abbreviations sparingly. Define all abbreviations, initializations, and acronyms at first use. For example: analysis of variance (ANOVA), International Union for Conservation of Nature (IUCN).

**Capitalization**
Geographic designations: Do not capitalize a term that indicates region unless it is being used as a proper noun (e.g., western states, Southeast Asia). Capitalization of terms used commonly in Conservation Biology: the Tropic of Cancer, the tropics; North Temperate Zone, temperate zone; East Africa, North Africa, central Africa; central Asia; tropics, Neotropics; Amazon Basin;
Central Honshu Lowland Forest [an endemic bird area]; Cape Floristic Region [an area with a high concentration of species richness]; taiga.

Threat categories: Do not capitalize threat categories used by legal institutions or other authoritative bodies: threatened, endangered, critically endangered, conservation concern, etc.

**Active voice**
In general, use *we* or *I*. For example: “We converted all GIS data to raster format” rather than “All GIS data were converted to raster format.” Or, “Trained technicians surveyed the plots” rather than “The plots were surveyed by trained technicians.” In particular, the Methods should not be written entirely in passive voice.

**Tense**
Use past tense in the Methods (describing what you did), Results (describing what your results were), and in the Discussion (referring to your results). Use present tense when you refer to published results. The principal exception to this rule is in the area of attribution and presentation. It is correct to say, for example, “Toffel (2008) found [past] that extracts from iron weed inhibit [present] fungal growth.”

**Word usage**
Using: In scientific writing, the word *using* is often the cause of dangling participles and misplaced modifiers.

- **Dangling participle:** “Using tissue isolation protocol, mtDNA was isolated from the dried skins.” This sentence implies that mtDNA used the tissue-isolation protocol. Better: “We used tissue-isolation protocol to isolate mtDNA from the dried skins.”

- **Misplaced modifier:** “Ivory samples were taken from tusks using a 16-mm drill bit on a 40-cm drill.” This implies that the tusks used the drill. Better: “We used a 16-mm drill bit on a 40-cm drill to take ivory samples from the tusks.”

**Based on:** Use *based on* as a verb. In adverbial form use *on the basis of.*

- **As a verb:** We based identification of reserves on the number of species in each unit. Incorrect: We identified reserves based on the number of species in each unit.

- **Adverbial form:** The solutions were compared on the basis of financial constraints. Incorrect: The solutions were compared based on financial constraints.
Impact: Use *impact* as a verb to mean the striking of one body against another. *Impact* should not be used to mean affect.

Relationship versus relation: Reserve use of *relationship* to mean relations between 2 or more persons.

**Multiple modifiers**
Do not use multiple adjectival nouns to modify a noun that is the subject or the object of the sentence: “We studied illegal African elephant ivory trade” or “infected bird populations’ responses.” Better: “We studied illegal trade in African elephant ivory” or “responses of infected bird populations.”

**Split infinitives**
A sentence should not sound awkward because it has been rearranged to avoid a split infinitive. When an adverb qualifies a verb phrase, the adverb usually should be placed between the auxiliary verb and the principal verb (e.g., this research will soon attract attention). Splitting an infinitive verb with an adverb can be useful for adding emphasis or making a sentence sound less stilted. Phrases such as the following are acceptable: the traps had been seriously damaged in a storm; differences in abundance were highly significant; to strongly favor.

**Pronouns**
Be careful with the pronouns *this*, *these*, and *it*. If you do not provide a qualifier, it is sometimes difficult to tell what these words refer to: “This program offers solutions to that problem.” Better: “This computer program offers solutions to the problem of incorrect sequencing of numbers.”

Abbreviations may be used as adjectives, but not as nouns (U.K. agencies, agencies of the United Kingdom).

**In-Text Citations**
In most cases, enclose citations in text in parentheses. “Populations in sagebrush have higher reproductive success than populations in cheatgrass (Bird & Tree 2000)” is better than “According to Bird and Tree (2000), populations in sagebrush . . . .”

Use an ampersand (&) between author surnames when the citation is parenthetical: (Bird & Tree 2000).

When a citation is not parenthetical, use *and*: “Our results are consistent with the predictions of Wolf and Rhymer (2001).”

For citations with more than two authors, use et al.: (Hatchwell et al. 1996). Do not italicize et al.

List parenthetical citations chronologically (from oldest to most recent) and separate entries with a semicolon: (Zorenstein et al. 1991; Waddell & Fretwell 2001).
Separate the years with commas when citing multiple papers by the same author: (Cox et al. 1991, 1992, 1998; Chapman 2001, 2002)

“In press” means the cited paper has been accepted unconditionally for publication. Provide the year of publication in the text (Bird 2010) and in Literature Cited provide the volume number and substitute “in press” for page numbers (Bird, I.M. 2010. Nesting success in arid lands. Conservation Biology 24: in press.).

Papers in review must be cited as unpublished and should not appear in the Literature Cited.

Use initials when referencing unpublished data held by the authors of the paper: (C.S.C. & L.K., unpublished data). Use an initial for the first (given) name and spell out the last name (surname) for other sources of unpublished data or information: (R. Fowler, unpublished data; M.E. Soulé, personal communication).

Software: capitalize the first letter only if the name of the program is a word (e.g., Partition, ArcInfo). If the name of the program is not a word, use all capital letters (e.g., SAS).

Do not use trademark symbols.

Ensure that all references cited in text are listed in the Literature Cited and vice versa.

Avoid “in. lit.” citations. Provide the original citations whenever possible.

**Numbers, Variables, and Statistical Elements**

Longitude and latitude: 148°N, 78°W (no periods).

Percentages and degrees: use symbols (15%, not 15 percent).

Fractions: may be spelled out (one-half, one-third) unless used with units of measure (0.5 mm or 0.5 years).

Decimal point: insert 0 before a decimal point (0.4, not .4).

Significant figures: Express calculated values (e.g., means, standard deviation) to not more than one significant digit beyond the accuracy of the original measurement. Report test statistics (e.g., p values, correlation coefficients) to not more than 3 significant digits.

Dates: day, month, year (e.g., 6 October 1987).

Numbered lists: for the most part, avoid the use of numbered lists in the text. “We used x, y, and z to take soil samples” rather than “We used three techniques to take soil samples: (1) . . . , (2) . . . , and (3) . . . .”
Insert a space between numbers and the unit of measure (6 m, 14 mL).

Define all variables used in an equation.

Delimiters: in mathematical expressions the order of delimiters is braces { }, brackets [ ], and parentheses ( ): {[( )]}. In narrative text, order is the opposite, ([ ]); avoid use of braces. In functional notation, nested pairs of parentheses are used.

With the exception of Greek letters, italicize all single-letter variables in equations. Do not italicize variables with more than one letter (e.g., “RU” meaning reproductive units as opposed to RU, in which R and U are separate interacting variables).

Complete words used as a variable should be lowercase (e.g., species). Each letter in multiple-letter abbreviations that are not complete words should be capitalized (e.g., acceptable, AMF for area of managed forest; unacceptable, PATCH for patch area).

Use the following abbreviations:
- \( p \), probability
- \( df \), degrees of freedom
- \( \chi^2 \), chi-square
- \( F \) (F test, variance ratio)
- \( F_{ST} \) (genetic variance contained in a subpopulation relative to the total genetic variance)
- CI, confidence interval or credible interval
- SE, standard error
- SD, standard deviation, e.g., mean (SD) = 44% (3) or mean of 44% (SD 3). Do not use ±.

**Scientific Names**

English and scientific names of birds should follow the checklist of the International Ornithological Congress (http://worldbirdnames.org/names.html). Deviations from spellings in this checklist must be supported by an explicit citation of the nomenclatural source (i.e., a published regional checklist or book on the birds of a specific area).

Common names of taxonomic groups other than birds should be in lower case (creeping thistle, tiger).

Scientific names: In the abstract and at first mention in the text, use common name followed by scientific name (genus and species) in parentheses: cane toad (\textit{Bufo marinus}), Douglas-fir (\textit{Pseudotsuga menziesii}). In tables include both common and scientific names.

Organisms: \textit{Clarkia springvillensis} (first use); \textit{C. springvillensis} (thereafter, even starting a sentence); \textit{Clarkia} spp. or sp. or var. (no italics).
Conservation Biology Style Sources


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