

6 November 2007

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RH: Chamberlain et al. • JWM Manuscript Guidelines

Journal of Wildlife Management Guidelines

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3 **ABSTRACT** These guidelines present *Journal of Wildlife Management (JWM)* policies and
4 procedures for submitting, reviewing, and editing manuscripts. In 2007 peer-reviewed *Wildlife*
5 *Society Bulletin (WSB)* articles were combined with *JWM* articles to form the new *JWM*. These
6 guidelines address that transition and update the Guidelines of Block et al. 2007. Appendices
7 are included for assistance in on-line submittal (Appendix A), literature cited (Appendix B), and
8 required abbreviations (Appendix C).

9 **KEY WORDS** author, format, guidelines, instructions, manuscript, policy, style.

10 *The Journal of Wildlife Management: 00(0): 000-000, 200X*

11 Please note that the format of manuscripts submitted for review differs from the printed format
12 of published manuscripts. As of January 2007, *Journal of Wildlife Management (JWM)* and the
13 *Wildlife Society Bulletin (WSB)* merged to create the new *JWM*. Submit peer-reviewed
14 manuscripts to *JWM*, and submit peer-edited articles and obituaries to *The Wildlife Professional*,

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15 which is received as a The Wildlife Society (TWS) member benefit. *The Wildlife Professional*
16 submission guidelines are available at [http://www.wildlife.org/publications/index.cfm?](http://www.wildlife.org/publications/index.cfm?tname=wild_prof)
17 `tname=wild_prof`. Submit *Wildlife Monographs* electronically using the *JWM* Allen Track
18 website after corresponding with the *Wildlife Monographs* EIC. *Wildlife Monographs*
19 submission guidelines are available at [http://www.wildlife.org/publications/index.cfm?](http://www.wildlife.org/publications/index.cfm?tname=monographs)
20 `tname=monographs`.

21 Publishing a professional paper proceeds most smoothly if authors understand the policy,
22 procedures, format, and style of the outlet to which they are submitting a manuscript. These
23 instructions supersede all previous guidelines. Papers that clearly deviate from this format and
24 style may be returned for correction before review. We hope these guidelines will make that
25 unnecessary.

26 These Guidelines apply to all *JWM* submissions. For authors with experience and
27 knowledge of previous *JWM* or *WSB* guidelines, it may be helpful to identify and review
28 substantial changes. Fundamental changes include: 1) a submission section that outlines the
29 electronic submission process, 2) an equation box section that specifies acceptable in-text
30 equation box use, 3) detailed instructions about online references, and 4) unified formatting for
31 Literature Cited. Please review this document for many additional, minor changes.

32 **SUBMISSIONS**

33 Reviewers and editors judge each manuscript on data originality, concepts, interpretations,
34 accuracy, conciseness, clarity, appropriate subject matter, and contribution to existing literature.
35 Prior publication or concurrent submission to other refereed journals precludes review or
36 publication in *JWM* (see additional information in the Submission Process section below).
37 Fisheries manuscripts are discouraged unless information is part of an account that mainly
38 concerns terrestrial vertebrates.

39 The *JWM* only accepts manuscripts submitted electronically via AllenTrack (AT). You
40 can register for an account (which will give you a homepage in AT), log in to an existing
41 account, submit a manuscript for review, and track the progress of your manuscript at
42 <http://jwm.allentrack.net/>. Before submitting a manuscript, see instructions on how to use AT
43 (Appendix A).

44 **Cover Letter**

45 Each publication is managed by an Editor-in-Chief (EIC). Direct cover letters to the Editor-in-
46 Chief (EIC) and provide information that bears on ethical and copyright considerations (Council
47 of Biology Editors [CBE] Style Manual Committee 1994:599–600) and other information that
48 might facilitate review and editing. Cover letters must indicate that your manuscript is submitted
49 for exclusive consideration by *JWM*. Without the exclusive consideration statement, the EIC
50 will not initiate review. The statement ensures that data and findings have not been published
51 previously or submitted elsewhere for simultaneous consideration.

52 **Previous Publication**

53 Guidelines for previous publication are flexible in certain instances, such as technical analyses of
54 findings published previously for lay audiences. Kendall (1981) elaborated on the seriousness of
55 dual publication, and *JWM* subscribes to these standards. If any portion of the manuscript has
56 been published or reported elsewhere, explain all similarities between information in the
57 manuscript and the other publication, and furnish a citation of such publications or manuscripts.
58 A paper is considered published if it:

- 59 1. Appears in a serial publication abstracted by *Biological Abstracts* or a similar reference
60 volume.
- 61 2. Appears in a book (including conference proceedings) printed in >500 copies and widely

62 distributed to libraries.

63 3. Has been published as part of a numbered series by an agency.

64 4. Is a symposium proceeding. The *JWM* will consider symposium proceedings on a case-
65 by-case basis. Contact the EIC for approval before submitting your symposia proceeding.

66 A paper is not considered published if it:

67 1. Is a thesis or dissertation, but these need to be cited in the manuscript (see Citing
68 Literature in Text below).

69 2. Is a brief abstract of a talk given at meeting.

70 3. Is an unpublished report required by sponsors and not distributed as part of a numbered
71 series or in other ways that might result in accession by libraries..

72 **Page Charges**

73 Page charges are mandatory and the submitting author is required to acknowledge that she or he
74 accepts responsibility for page charges should the manuscript be accepted for publication. The
75 fee to print color images is \$650/color plate as of Nov 2007; this fee will be invoiced prior to
76 production of page proofs.

77 **Copyright**

78 If a manuscript not in the public domain is accepted for publication, authors or their employers
79 must transfer copyright to TWS. Publications authored by federal government employees are in
80 the public domain. Manuscript submission implies entrusting copyright (or equivalent trust in
81 public-domain work) to the Editor until the manuscript is rejected, withdrawn, or accepted for
82 publication. If accepted, TWS retains copyright. Copyright forms are available at:
83 <http://www.wildlife.org/publications/index.cfm?tname=journal>.

84 **SUBJECT MATTER**

85 The *JWM* publishes manuscripts containing information from original research that contributes
86 to the scientific foundations of wildlife management. Suitable topics include the results and
87 interpretations of investigations into the biology and ecology of wildlife that can be used for
88 management. The link to management of wildlife resources must be clear and concise. The
89 *JWM* papers also address theoretical and conceptual aspects of wildlife management, including
90 development of new approaches to quantitative analyses, modeling of wildlife populations and
91 habitats, and other topics that are germane to advancing the science of wildlife management.
92 Methods and techniques papers are suitable for *JWM* only if they address new research methods
93 and techniques that pertain to wildlife management and science. We accept submissions to the
94 following sections:

- 95 1. *Management and Conservation.* These papers describe the effects of specific practices or
96 policies on populations of animals or plants. Examples include 1) effects of
97 agriculture, livestock, forest, or range management practices; 2) effects of practices
98 directed toward wildlife or its habitat, such as supplemental feeding, food plots or
99 food plantings, cover plantings, prescribed burning, brush or tree-canopy reduction,
100 soil disturbance, and habitats created by humans; 3) methods of reducing damage
101 caused by wildlife, including translocation, aversive conditioning, population
102 reduction, chemical application, scare device installation, and related practices; 4)
103 tests of harvest regulations or procedures or effects of harvest management on
104 populations; and 5) effects of private or governmental policy on wildlife.
- 105 2. *Human Dimensions of Wildlife Management.* These articles discuss sociology, values,
106 attitudes, perceptions, and psychology of natural resource stakeholders and managers.
107 Examples include: 1) contributions on political or legal issues, 2) special topics in

108 wildlife management, 3) environmental impacts, 4) refinement of state or federal natural
109 resource programs or policies, 5) administration of wildlife programs or agencies, 6)
110 regional or national surveys of wildlife management programs or policies, 7) social
111 movements affecting wildlife management, and 8) economics of wildlife management.

112 These articles also address the principles, logic, and ethics under which wildlife
113 managers and the profession operate. These articles may also address education of
114 natural resource stakeholders, hunter education, university curricula, and related topics.

115 3. *Techniques and Technology*. These manuscripts report a significant evaluation of, or
116 improvement upon, techniques used frequently in management (e.g., counting or
117 surveying populations to determine effects of management; sexing, aging, capturing, and
118 handling wildlife). We also welcome manuscripts that describe computer software that
119 has application to wildlife management and research.

120 4. *Student Voices*. These articles discuss issues of particular relevance to students within
121 the natural resources field or are award-winning or otherwise outstanding student-
122 authored essays. These articles are designed to provide students with opportunities to
123 express themselves in a prominent outlet used by professionals in their field.

124 5. *Commentaries and Remarks*. These articles are essays that question values, priorities,
125 precepts, and philosophical foundations under which wildlife management operates.
126 These articles can uncover dogma, false assumptions, and misguided policy or stimulate
127 thought and innovation. Commentaries are in response to an issue, movement, policy,
128 or program that could impact wildlife or its habitat, and subject area can be broad. The
129 manuscript must be well documented and prepared professionally. The purpose of this
130 feature is to get important information in print in a timely fashion. The EIC appoints an

131 Associate Editor for these articles.

132 6. *Letter to the Editor*. The EIC has the option to solicit invited papers that review and
133 synthesize important topics that pertain to the scientific foundations of wildlife
134 management. However, we encourage anyone to contact the EIC with potential topics
135 and author(s). Invited Papers must include a management implications section, are not
136 necessarily subject to peer review, and are not subject to page charges.

137 7. *Book Reviews*. Book reviews provide a brief synopsis and commentary on a book
138 relevant to some aspect of the natural resources field.

139 **Replication of Treatments**

140 Hurlbert (1984) pointed out that field researchers have frequently misused inferential statistics
141 because treatments were not replicated. However, because of the nature of field research, true
142 replication sometimes will not be feasible. Guthery (1987) presented guidelines for authors and
143 reviewers of manuscripts based on unreplicated treatments.

144 **FORMAT AND STYLE**

145 Manuscripts must adhere to *JWM* guidelines before they will be approved and sent out for
146 review.

147 **Manuscript Types**

148 The *JWM* and *Wildlife Monographs* consider manuscripts of varying lengths. The page numbers
149 noted below include Literature Cited, tables, and figures. All text must be double-spaced in
150 Times New Roman font. Select from the following submission options based on the length of
151 your manuscript:

152 1. ≤ 20 pages: *JWM* Research Note. Notes provide an outlet for publication of information
153 that is relevant and important, but that is lacking in spatial or temporal replication.

154 Notes are not designed to serve as an outlet for publication of research that lacks
155 appropriate scope or is better suited for regional or other outlets. Notes may be
156 submitted to the following sections: Management and Conservation, Human
157 Dimensions of Wildlife Management, Techniques and Technology, and Student
158 Voices.

159 2. 21-50 pages: *JWM* Research Article. Articles may be submitted to the following sections:
160 Management and Conservation, Human Dimensions of Wildlife Management,
161 Techniques and Technology, and Student Voices.

162 3. 51-79 pages: *JWM* Article or Wildlife Monograph. The *JWM* EIC will decide on the
163 appropriate submission venue for these manuscripts on a case-by-case basis.

164 4. >80 pages: Wildlife Monograph.

165 **Page Format**

166 Upload files in the following order:

- 167 1. Cover letter
- 168 2. Text arranged as follows: manuscript text, Literature Cited, figure captions (not
169 figures), and tables.
- 170 3. Figure(s) compiled into one file or submitted in individual files. Label and mount
171 figure parts (e.g., Fig 3A, Fig 3B) together into a single figure as they are meant to
172 appear in print. Failing to do so may result in additional charges during typesetting.

173 Allen Track converts all submitted files to PDF files for initial evaluation and review. To ensure
174 accurate conversion of manuscripts, we only accept text and table files in the following formats:

175 Word, html, and rtf. We only accept figure files in the following formats: .tif, .jpg, .pdf, .eps,

176 .xls, and .ppt.. Do not submit files in Word Perfect, including equations that were not created
177 within the standard Word template. We cannot accept .docx files.

178 *General guidelines:*

- 179 1. Double space all text, including title, authors' addresses, text, long quotations within text,
180 literature citations, table footnotes, table titles, table bodies, and figure titles.
- 181 2. Do not break (hyphenate) words on the right margin.
- 182 3. Do not justify the right margin.
- 183 4. Use Times New Roman font, 12-point type throughout the manuscript, including title and
184 headings.
- 185 5. Italicize words or symbols, such as scientific names and mathematical symbols that
186 should appear italicized in print.
- 187 6. Do not use italic or boldface type for emphasis.
- 188 7. Maintain margins of 2.5 cm (1 inch) on all sides of the page.

189 **Title Page: Running Head, Title, and Authors**

190 The following guidelines apply to all text files. On page 1 single-space the following information
191 in the upper left corner: date (update with each revision) and the corresponding author's name,
192 address, telephone, fax, and e-mail (as in this document). Thereafter, double-space all text
193 including authors' addresses, the title of the paper, figure legends, and tables. If the
194 corresponding author's email address changes following submission of the manuscript, update
195 the user profile on the AT website, and notify the editorial staff.

196 Type the running head (RH) on the first line following the correspondent's address. The
197 RH is limited to 45 characters. Left-justify the RH and capitalize each important word (e.g.,
198 "Implanting Transmitters in Snakes"). The RH is preceded by a dot (or raised period) and the
199 last name(s) of ≤ 2 authors. For ≥ 3 authors, use the name of the first author followed by "et al."

200 (e.g., Foster et al.). For example:

201 RH: Chamberlain et al. • JWM Manuscript Guidelines

202 The title follows the RH and is left-justified in bold font, sentence-case letters, with
203 important words capitalized as in the RH. The title identifies manuscript content and may not
204 include abbreviations, acronyms, or punctuation. Titles should not exceed 10 words unless doing
205 so forces awkward construction. Do not use scientific names in the title except for organisms
206 that do not have, or are easily confused by, common names. Do not use numbers in titles or the
207 RH.

208 Authors' names are left-justified in all capital letters. Each name is followed by the
209 author's affiliation in sentence-case, italic letters. The affiliation is usually where the author was
210 employed during the study. Indent the second and subsequent lines of an author's address 5
211 spaces using the hanging indent function. In each address, use available United States Postal
212 Service (USPS) abbreviations, zip codes, and the country (abbreviate "USA," but spell out all
213 others). See the following websites for USPS abbreviations: <http://www.usps.com/nsc/lookups/abbreviations.html#states> and <http://canadaonline.about.com/library/bl/blpabb.htm>. Write out
214 words like Street, Avenue, and Boulevard, but abbreviate directions (e.g., N. and N.W.). For
215 multiple authors with the same address, repeat the address after each author's name.

217 **Footnotes**

218 Insert footnotes using the footnote function. Footnotes may only be used to note an author's
219 email address, to reference the present address of an author when it differs from the byline
220 address, and to indicate a deceased author. Each footnote starts with a numerical superscript.
221 Incorporate endorsement disclaimers and pesticide warnings in the text. For information on table
222 footnotes, see the Tables section.

223 **Abstract**

224 Begin with the word "**ABSTRACT**" (left-justified) in bold font. The abstract text begins after a

225 regular letter space on the same line and is a single paragraph not exceeding 1 line per page of
226 text (3% of length of text), including Literature Cited. Research Note abstracts cannot exceed 1
227 line per 2 pages, including Literature Cited. The abstract includes:

228 1) Problem studied or hypothesis tested. Identify the problem or hypothesis and explain why
229 it is important. Indicate new data, concepts, or interpretations directly or indirectly used
230 to manage wildlife.

231 2) Pertinent methods. State methods used to achieve the results summarized in the Results
232 (keep the methods brief unless a new, greatly improved method is reported).

233 3) Results. Emphasize the most important results, positive or negative.

234 4) Utility of results. Explain how, when, where, and by whom data or interpretations can be
235 applied to wildlife problems or contribute to knowledge of wildlife science.

236 **Key Words**

237 Key words follow the abstract. The phrase “**KEY WORDS**” (left-justified, typed in bold font) is
238 followed by a regular space and ≤ 10 key words in alphabetical order, ending with a period.

239 Include some words from the title and others that identify: 1) common and scientific names of
240 principal organisms in the manuscript; 2) the geographic area, usually the state, province, or
241 equivalent, or region if its name is well known; 3) phenomena and entities studied (e.g.,
242 behavior, populations, radiotelemetry, habitat, nutrition, density estimation, reproduction); 4)
243 methods (only if the manuscript describes a new or improved method); and 5) other words not
244 covered above but useful for indexing. After key words, right justify the Journal name and place
245 holders for publication information in bold font.

246 For example:

247 **KEY WORDS** author, format, guidelines, instructions, manuscript, policy, style.

248 *The Journal of Wildlife Management: 00(0): 000-000, 200X*

249 **Text Pages**

250 Using the Header function, insert page numbers and author name(s) (e.g., Smith, Smith and
251 Jones, Smith et al.) on all pages following the title page. These notations help keep the
252 manuscript sections together during reviewing, editing, and typesetting. Number each line of the
253 text continuously (i.e., do not restart numbering on each page).

254 **Headings**

255 Examples of the 3 heading types follow:

256 1. First-level heading: upper-case lettering, bold type, and flush left. Text follows flush left
257 on the succeeding line. For example:

258 **STUDY AREA**

259 2. Second-level heading: bold type, flush left, with important words capitalized. Text follows
260 flush left on the succeeding line. For example:

261 **Burrow Availability Hypothesis**

262
263 3. Third-level heading: indented 5 spaces, italicized, and followed by a period and em dash.
264 Text follows directly after the heading on the same line. For example:

265 *Assessment of available natural burrows.*— Begin paragraph text here.

266 Under a first-level heading, use only third-level headings if the subsections are short (≤ 2
267 paragraphs). Avoid repeating exact wording of the heading in the text following second- and
268 third-level headings. Use first-level heading for appendix titles.

269 **Major Sections of Manuscript**

270 The introduction (no heading) starts below the publication name and contains a concise synthesis
271 of literature specific to the manuscript's main topic. In the latter part of this section, state the
272 objectives of the study and the hypotheses tested.

273 Articles must include the following first-level headings: Abstract, Introduction (no
274 heading required), Study Area, Methods, Results, Discussion, Management Implications,
275 Acknowledgments, and Literature Cited. Notes must include the following headings: 1) first-

276 level headings: Abstract, Introduction (no heading required), Study Area, Methods, Results,
277 Discussion, and Literature Cited; 2) second-level headings: Management Implications and
278 Acknowledgments. No additional subheadings are allowed. It is not permissible to combine
279 Study Area and Methods or Results and Discussion. Merging these sections leads to superfluous
280 wording, unnecessary discussion, and confusion.

281 Use past tense for Study Area descriptions (e.g., average annual precipitation was 46 cm,
282 habitat was primarily grass). Exceptions include geological formations that have been present
283 for centuries (e.g., mountains). Methods should be brief and include dates, sampling schemes,
284 duration, research or experimental design, and data analyses. Write the Methods in the active
285 voice (i.e., write “We recorded age, sex, and mass...” and “We analyzed data using logistic
286 regression,” rather than “Age, sex and mass were recorded” or “Logistic regression was used”;
287 see Style and Usage section below). Cite previously published methods without explanation.
288 Identify new or modified methods and explain them in detail. Include animal-welfare protocols
289 in the Methods section (not in Acknowledgments). Include protocol numbers parenthetically
290 following the relevant statement.

291 Present Results in a clear, simple, concise, and organized fashion. Avoid overlapping text
292 with information in tables and figures; do not explain analyses that should have been described
293 in the Methods section. Always try to describe the magnitude of the biological effect in addition
294 to the results of statistical analyses. That is, terms such as “fewer” or “smaller” tell us little, and
295 stating that something was “statistically different ($P < 0.01$)” without giving the actual difference
296 conveys little meaning to the reader. For example, stating that “A was 25% larger than B ($P <$
297 0.001)” conveys more information than simply stating that “A was significantly larger than B.”
298 Present Results in past tense (e.g., body mass loss occurred during winter). Reserve comments
299 on interpretation of results for the Discussion.

300 The Discussion provides an opportunity for interpreting data and making literature

301 comparisons. Begin the Discussion by synthesizing your results with regard to your objectives
302 and then relate your work to other literature and research. Systematic discussion of every aspect
303 of research leads to unnecessarily long manuscripts; be concise and relate your findings directly
304 to your overall project goal, objectives, and hypotheses as appropriate. Reasonable speculation
305 and new hypotheses to be tested may be included in the Discussion. Do not repeat results in this
306 section, and comment on only the most important results.

307 The Management Implications section should be short (usually about 1 paragraph) and
308 direct but explain issues important to management and conservation that are derived directly
309 from or addressed in your results. Do not restate material from the Results or Discussion
310 sections, and do not make recommendations that are beyond the scope of your study. Address
311 specific management opportunities or problems in this section.

312 The Acknowledgments (note preferred spelling) section appears immediately before
313 Literature Cited. This section should be brief and include initials (rather than first names) of
314 individuals cited. Acknowledgments should be straightforward without ornate and qualifying
315 adjectives or personal remarks. For example: “We thank G. A. Baldassarre, M. Boyce, C. E.
316 Braun, H. E. Hodgdon, R. L. Lee, and M. Kirsch for review comments and contributions to this
317 manuscript. G. C. White assisted with revision of the mathematics and statistics subsection.
318 Portions of this manuscript have been extracted from Ratti and Ratti (1988) and Gill and Healy
319 (1980) with permission of The Wildlife Society. This is Contribution 836, University of Idaho
320 Forest, Wildlife, and Range Experiment Station. L. M. Smith was supported by the Caesar
321 Kleberg Foundation for Wildlife Conservation.”

322 **Literature Cited**

323 Refer to detailed instructions on how to format citations (Appendix B). Maintain double-spacing
324 and use hanging indents (rather than blank lines) to differentiate between citations. Present
325 citations within the manuscript in chronologic order and then alphabetic order. Spell out all

326 author names in sentence case lettering instead of using dashes. Present citations within the
327 Literature Cited section in alphabetic order and then chronologic order. At the end of the
328 Literature Cited section type “*Associate Editor:*” (the name of the Associate Editor will be filled
329 in later).

330 **Figure Legends and Tables**

331 On a new page following the Literature Cited, compile figure captions (not figures) and
332 tables. Submit figures as a separate file(s). Label and mount figure parts (e.g., Fig 3A, Fig 3B)
333 together into a single figure as they are meant to appear in print. Failing to do so may result in
334 additional charges during typesetting. Note that although AT provides spaces to enter figure and
335 table captions, these captions do not carry over to the merged file; they are for on-line reviewing
336 only.

337 **Appendices**

338 Include appendices in the text file after all tables and figure captions. Use first-level headings for
339 Appendix titles.

340 **STYLE AND USAGE**

341 Manuscripts with publishable data may be rejected because of poor writing style (e.g., long and
342 complex sentences, superfluous words [Table 1], unnecessary information, and poor
343 organization). Most editors are patient with this problem and are willing to offer helpful
344 suggestions. However, reviewers may be less tolerant of poor writing, which may result in
345 negative reviews. We urge authors to review chapters 3 and 4 in the “CBE Style Manual” (CBE
346 Style Manual Committee 1994) and “Writing with Precision, Clarity, and Economy” (Mack
347 1986). Use a direct and concise writing style and minimize repetition among different sections
348 of your manuscript. Avoid using 1-sentence paragraphs. Many common problems may be
349 avoided by use of a carefully prepared outline to guide manuscript writing. Other helpful

350 suggestions are presented by Strunk and White (1979), Day (1983), and Batzli (1986). Many
351 problems can be corrected by having your manuscript critically reviewed by colleagues before
352 submission for publication.

353 The most common error in manuscripts is use of passive voice. Use first person and
354 active voice throughout the manuscript to avoid superfluous or unclear wording. For example,
355 instead of writing “false absences were estimated” write, “we estimated false absences.” Review
356 the list of commonly misused words before preparing your manuscript (Table 2).

357 Do not hyphenate words at the right margin, and do not right-justify text. Set margins at
358 2.5 cm (1 inch) on all sides. Do not violate margin boundaries to begin a new paragraph or to
359 place the Literature Cited at the top of a new page (i.e., do not leave >2.5 cm of space at the
360 bottom of a page except to prevent a widow heading). Do not underline, italicize, or boldface
361 words in the text to indicate emphasis. Type scientific names in italic font and type Latin
362 phrases in plain type (e.g., *post hoc*, *a priori*).

363 **Numbers and Unit Names**

364 Use digits for numbers (e.g., 7 and 45) unless the number is the first word of a sentence or is
365 used as a pronoun (e.g., at least one escaped), in which case the number is spelled out. Indicate
366 units after each item (e.g., elevations ranged 3,000 m to 5,000 m) and use symbols or
367 abbreviations (e.g., % and kg) for measurement units that follow a number unless the number is
368 indefinite (thousands of hectares), is a “0” (zero) or “1” (one) standing alone, or is the first word
369 in a sentence. In such cases spell out the number and unit name or recast the sentence. Avoid
370 using introductory phrases (e.g. a total of ...). Spell out ordinal numbers (e.g., first, second) in
371 text and Literature Cited, but use digits for cases such as 3-fold and 2-way. Convert fractions
372 (1/4, 1/3, etc.) to decimals except where they misrepresent precision.

373 Hyphenate number-unit phrases used as adjectives (e.g., 3-m² plots and 3-yr-old M) but

374 not those used as predicate adjectives (e.g., plots were 3 m², M were 3 yr old). Insert commas in
375 numbers $\geq 1,000$ (except for pages in books, clock time, or year dates). Do not insert a comma or
376 hyphen between consecutive, separate numbers in a phrase (28 3-m² plots). Do not use naked
377 decimals (i.e., use 0.05, not .05). When identifying items by number, use lowercase for names
378 (e.g., plot 1, site 5, day 3).

379 **Time and Dates**

380 Use the 24-hour system: 0001 hours through 2400 hours (midnight). Date sequence is day
381 month year, without punctuation (e.g., 4 March 2000). Do not use an apostrophe for plural dates
382 (e.g., 1970s). Spell out months except in parentheses, table bodies, and figures, in which 3-letter
383 abbreviations are used with no period (e.g., 31 Mar 1947).

384 **Mathematics and Statistics**

385 Use italic font for Roman letters used as symbols for quantities (e.g., *n*, \bar{x} , *F*, *t*, *Z*, *P*, and *X*;
386 Appendix C). Do not underline or italicize numbers, Greek letters (e.g., chi-square, χ^2), names of
387 trigonometric and transcendental functions, or certain statistical terms (e.g., ln, E, exp, max, min,
388 lim, SD, SE, CV, and df). Report degrees of freedom used in a statistical test as subscripts to the
389 relevant test statistic. Use bold font for items that should be set in boldface type. Insert symbols
390 from your word processing program's symbol directory as opposed to creating the symbol with
391 keyboard functions (e.g., chi-square should appear as χ^2 [found in the symbol directory], as
392 opposed to X^2 [created with keyboard functions]). Use the minus sign from the symbols menu
393 (−) to indicate minus and negative values instead of using the keyboard hyphen. Use times (×) to
394 indicate multiplication or dimensions instead of using an asterisk (*) or a lowercase x.

395 Insert a space on both sides of symbols used as conjunctions (e.g., $P > 0.05$), but close the
396 space when symbols are used as adjectives (e.g., >20 observations). Where possible, report
397 exact probabilities ($P = 0.057$, not $P > 0.05$). A subscript precedes a superscript (X_i^3) unless the

398 subscript includes >3 characters. Break long equations for column-width printing (67 mm) if
399 they appear in the main body of the manuscript; long equations and matrices can be printed page-
400 width (138 mm) in appendices. Follow Swanson (1974) or the CBE Style Manual Committee
401 (1994:206–218) for general guidance, and follow MacInnes (1978) for advice on presentation of
402 statistics. Type the names of statistical programs or analytical methods (that are not acronyms)
403 in capital letters (e.g., PROC LIFEREG, POPGEN, Program MARK). See instructions on how
404 to cite statistical software packages (Appendix B). We urge authors to read Tacha et al. (1982)
405 and Wang (1986) for reviews of common statistical errors. Consider statistical power when
406 judging results (*JWM* 59:196–198).

407 Avoid redundant use of the word "significantly" (e.g., "the means differed [$P = 0.016$]").
408 Report results of statistical tests or central tendency as in the following examples: ($t_1 = 2.47, P =$
409 0.013), ($F_{3,12} = 33.10, P = 0.01$), ($\chi^2_{10} = 22.1, P = 0.029$), or ($\bar{x} = 7.8, SE = 3.21, n = 46$). Note
410 that the appropriate degrees of freedom are subscripted with the test statistic. Present P -values
411 less than 0.001 as $P \leq 0.001$.

412 **Equations**

413 Equations require precise internal spacing and formatting, and are most easily correctly
414 constructed with MathType software. Simple mathematical expressions, such as symbols with
415 simple subscripts or superscripts and Greek letters can be typed as text, using the symbol
416 directory. However, care must be taken to be sure that the font and font size are the same
417 wherever the symbol is used, and inconsistencies can arise when text symbols are mixed with
418 symbols generated with MathType. For example, the Greek letter phi can be represented by both
419 φ and ϕ , which leads to confusion when both appear in the manuscript but are to imply the same
420 symbol. Mathematical symbols for estimators are typically given “hats” (carets, e.g., $\hat{\mu}$) and

421 require the use of the software, as does proper construction of the symbol for an estimated mean
422 (\bar{x}). Submit complex equations as display equations in equation boxes: 1) characters that have
423 hats, tildes, or other expressions that would not translate well into straight text; 2) sums,
424 products, and similar statements; and 3) brackets around matrices and complex expressions. For
425 in-line equations using division, use “/” instead of stacking above and below a horizontal line,
426 and all symbols in text need to be pulled from the symbols function or Unicode. Statistical terms
427 that are not to be italics (e.g., ln, E, exp, max, min, lim, SD, SE, CV, and df) can appear in
428 equation boxes as text without italics by changing the style to “text” while editing the equation
429 box.

430 **Abbreviations and Acronyms**

431 The following abbreviations may be used in the text without definition: metric units, DNA,
432 USPS abbreviations, and certain measurement units (see Appendix C). Define all other
433 abbreviations or acronyms the first time you use them in the abstract and text (e.g., Geographic
434 Information System [GIS], Global Positioning System [GPS], Akaike’s Information Criterion
435 [AIC]). Reestablish acronyms in the text that were first established in the abstract. Do not start
436 sentences with acronyms, and do not use an apostrophe with plural acronyms (e.g., ANOVAs).

437 **Punctuation**

438 Use a comma after the next-to-last item in a series of >2 items (e.g., red, black, and blue). Do
439 not use a comma to separate a compound sentence before the conjunction unless the sentence
440 will be confusing otherwise (e.g., “Use an infrared scope at night and use a regular scope during
441 the day,” not “Use an infrared scope at night, and use a regular scope during the day.”). Write
442 clearly enough so that you do not need to put quotation marks around words or phrases unless
443 they are direct quotations. Do not hyphenate prefixes, suffixes, or combining forms unless
444 necessary to avoid confusion. Follow these 3 rules to avoid common hyphenation errors: 1) a

445 phrase containing a participle or an adjective is hyphenated as a compound when it precedes the
446 word modified, and it is written without a hyphen when it follows the word modified (e.g., “a
447 small-mammal study” and “a study of small mammals” are both correct but have a different
448 meaning than “a small mammal study”); 2) a modifier containing a number is usually
449 hyphenated (e.g., a 6-yr-old mammal); and 3) a 2-word modifier containing an adverb ending in -
450 -ly is not hyphenated (e.g., a carefully preserved specimen).

451 However, excessive use of compound modifiers before nouns makes for difficult reading
452 and tends to obscure the subject. Avoid ambiguous use of nouns as modifiers (e.g., wolf
453 researchers, woman hunters). Use prepositions to avoid using nouns as adverbs (e.g., nesting by
454 birds, not bird nesting; hunting with dogs, not dog hunting) and to avoid noun strings exceeding
455 3 words (e.g., radiotelemetry locations of dens in fall, not fall den radiotelemetry locations).

456 Closing quotation marks are always placed after periods and commas, but they may be
457 placed either before or after other punctuation (CBE Style Manual Committee 1994:177–181).
458 Brackets must appear in pairs, but the sequence varies. Use ([]) in ordinary sentences, use {{()}}
459 in mathematical sentences, and use (()) only in special cases such as chemical names. Brackets
460 are used to enclose something not in the original work being quoted (e.g., insertion into a
461 quotation or a translated title [CBE Style Manual Committee 1994:58–59]).

462 Do not use a slash (/) to indicate "and" or "or" or to express a range; use only to indicate
463 "divided by" or "per." Avoid using words in ways other than their standard meanings; use
464 quotation marks to imply a special meaning sparingly. Use trademarks (i.e.,™, ®) at the first
465 mention of a product name, where appropriate, and not thereafter (if introduced in the abstract,
466 re-establish the information in the text). Provide manufacturer information (manufacturer, city,
467 and state or country of manufacture) immediately following the first use of a product name. Do
468 not include manufacturer information or location for GIS and GPS.

469 Enumerating Series of Items

470 A colon must precede a series of numbered items unless the list is preceded by a verb or
471 preposition. For presentation of a simple series, place numbers followed by a closing parenthesis
472 only (see example in Key Words section) and separate phrases with commas or semicolons.
473 When enumerating lengthy or complexly punctuated series, place the numbers at the left margin,
474 with periods but no parentheses, and indent run-on lines (see Measurement Units section below).

475 Common and Scientific Names

476 Do not capitalize common names of species except words that are proper names (e.g., Canada
477 goose [*Branta canadensis*], Swainson's hawk [*Buteo swainsoni*], and white-tailed deer
478 [*Odocoileus virginianus*]). Scientific names follow the first mention of a common name, except
479 in the title. If a scientific name is established in the abstract, re-establish it in the text. Place
480 scientific names following common names in parentheses and italic font with the first letter of
481 the genus name capitalized and the species name in lower-case letters. Abbreviate genus names
482 with the first letter when they are repeated within a few paragraphs, provided the meaning is
483 clear and cannot be confused with another genus mentioned in the manuscript with the same first
484 letter; e.g., we studied snow geese (*Chen caerulescens*) and Ross' geese (*C. rossii*).

485 Do not use subspecies names unless essential, and omit taxonomic author names. Use
486 "sp." (singular; not italicized) or "spp." (plural) to indicate that the identity of species within a
487 genus was unknown. For example, "The field was bordered by willow (*Salix* sp.) and we trapped
488 several species of mice (*Peromyscus* spp.)." Use the most widely accepted nomenclature where
489 disagreement occurs. As general references for birds, use the most current edition of The
490 American Ornithologists' Union Check-list (e.g., 1997) and periodic supplements published in
491 *Auk*. For mammals, use Whitaker (1996). There is no single reference for plants in North
492 America; cite the most widely accepted regional flora reference (e.g., in northwestern states,
493 Hitchcock and Cronquist [1973]). Omit scientific names of domesticated animals or cultivated

494 plants unless a plant is endemic or widely escaped from cultivation or is a variety that is not
495 described adequately by its common name.

496 **Measurement Units**

497 Use Systeme Internationale d'Unites (SI) units and symbols (see Appendix C). Place a space
498 between numbers and units or symbols (e.g., 10 m, 80° C). Do not use hyphens between
499 numbers and units unless you are using a number-unit phrase to modify a noun (e.g., correct
500 usage: 12-mm mesh, 3-yr study, 12 mm in diam, and 2 mm wide; see section on Style and
501 Usage.) Use English units (or, rarely, another type of scientific unit) in parentheses following a
502 converted metric unit only in cases that may misrepresent: 1) the statistical precision of the
503 original measurement or 2) the correct interpretation of the results. However, these non-SI units
504 are permitted:

- 505 1. Area: hectare (ha) in lieu of 10^4 m^2 ;
- 506 2. Energy: calorie (cal) in lieu of Joule (J);
- 507 3. Temperature: Celsius (C) in lieu of Kelvin (K);
- 508 4. Time: minute (min), hour (hr), day, etc. in lieu of seconds (sec);
- 509 5. Volume: liter (L) in lieu of dm^3 .

510 The CBE Style Manual Committee (1994:200–205) provides definitions of SI units and
511 prefixes. The American Society of Testing Materials (1979) includes many conversion factors.

512 **Securing Appropriate Approval(s)**

513 It is increasingly important that scientists ensure their research activities are conducted such that
514 the welfare of the animals they are studying (e.g., installing radiotransmitters) or the rights of
515 human subjects (e.g., sending them a survey) is considered. Consequently, it is important that all
516 peer-reviewed manuscripts submitted for publication demonstrate that these concerns have been
517 addressed. Include documentation in the Methods section.

518 *Animal care.*—Appropriate documentation that proper animal care and use was applied
519 when using live vertebrate animals for research must be provided. Acceptable means of
520 documentation include an Institutional Animal Care and Use Protocol number (as designated by
521 most U.S. universities), the number of the permit or license issued to hold animals (such as with
522 private breeders), or the equivalent. This policy covers all vertebrate animals, including
523 mammals, birds, reptiles, amphibians, and fish.

524 *Human subjects.*—Appropriate documentation that proper approval was obtained to
525 perform research involving human subjects (primarily surveys) must be provided. Acceptable
526 means of documentation include a Human Subjects Protocol number (as designated by most U.S.
527 universities) or the equivalent.

528 **Citing Literature in Text**

529 In most cases reference citations parenthetically at the end of a sentence; e.g., “Mallard brood
530 survival was higher in the wettest years (Rotella 1992).” Cite published literature by author and
531 year; e.g., Jones (1980), Jones and White (1981). Use “et al.” for publications with ≥ 3 authors;
532 e.g., (Jones et al. 1982). Do not separate the author and date by a comma, but use a comma to
533 separate a series of citations. Use chronological order for citations in a series; e.g., (Jones 1980,
534 Hanson 1986). If citations in a series have >1 reference for the same author(s) in the same year,
535 designate the years alphabetically (in italics) and separate citations with semicolons; e.g., (Jones
536 1980*a, b*; Hanson 1981; White 1985, 1986). For citations in a series with the same year, use
537 alphabetical order within chronological order; e.g., (Brown 1991, Monda 1991, Rotella 1991,
538 Allen 1995). Do not give >5 citations in the text to reference a specific issue or scientific
539 finding. For a quotation or paraphrase, cite author, year, colon, and page number(s); e.g., “We
540 used Neyman allocation to minimize variance (Krebs 1989:216).” Use the same style for a book
541 or other lengthy publication unless the reference is to the entire publication; e.g., Odum

542 (1971:223).

543 Cite documents that are cataloged in major libraries, including theses and dissertations, as
544 published literature. This includes symposia proceedings and United States Government reports
545 that have been widely distributed. However, cite such references as unpublished if they are not
546 easily available. Cite all other documents as unpublished data in the text only.

547 **Citing Unpublished Sources in Text**

548 If references are not easily available or are not widely distributed, cite them in the text only.
549 This includes reports that are not published or widely distributed, manuscripts that have not yet
550 been accepted for publication, and personal communications and observations. Avoid overusing
551 unpublished information. These citations are not as credible as published literature and will make
552 your text cumbersome. Cite unpublished references in the text as follows:

- 553 1. Personal communications: (J. G. Jones, National Park Service, personal communication);
- 554 2. Unpublished report: (D. F. Timm, Alaska Department of Fish and Game, unpublished
555 report) or (E. J. Jones, North Carolina State University, unpublished report);
- 556 3. Unpublished data (including manuscripts in review): (D. F. Brown, Arizona Game and
557 Fish Department, unpublished data).

558 Abbreviate state names in parentheses (Appendix A) except when they appear in the title of an
559 academic institution or agency. Always include the affiliation in the first citation, even if citing
560 unpublished data or personal observation of one of the authors, but do not repeat the affiliation in
561 subsequent references (e.g., J. G. Jones, personal communication).

562 A manuscript accepted for publication is cited as a published manuscript in the text using
563 the anticipated publication year. In the Literature Cited section, show the year after the name(s)
564 of the author(s) and “in press” after the volume number. Do not cite manuscripts that are in

565 review; use the unpublished style listed above. Refer to detailed instructions for Literature Cited
566 style (Appendix B).

567 **Citing Equipment and Statistical Software**

568 For field equipment, note the manufacturer name and location parenthetically the first time you
569 mention the equipment in the text (e.g., Interface, Missoula, MT). Do not include manufacturer
570 information or location for GIS and GPS. For statistical software, only include the software in
571 LITERATURE CITED if you are referencing the software manual. Otherwise simply include
572 manufacturer information (manufacturer, city, and state or country of manufacture) immediately
573 following the first use of the statistical product name. Include website access information in
574 citations if the program is only available online.

575 **TABLES AND FIGURES**

576 Submit only essential tables and figures. Do not submit tables if the information overlaps with
577 information presented in the text, can be easily printed in the text with less journal space, or
578 presents the same data in another table and a figure. Number tables and figures independently.
579 Do not combine multiple tables or figures on one page. In the text, limit reference of tabular data
580 to highlights of the most important information. Reference tables and figures parenthetically
581 (Table 1, Fig. 3) and avoid statements such as, “The results are shown in Tables 1–4.” Prepare
582 line drawings only for data that cannot be presented as clearly in a table. For general guidance
583 see CBE Style Manual Committee (1994:677–693).

584 Tables and figures should be able to stand alone (i.e., be self-explanatory) and avoid
585 reference to the text. Accordingly, define relevant abbreviations and acronyms in each table and
586 figure (except items that appear in Appendix C). Table and figure titles must include the species
587 or subject of the data studied and when and where (region/state and country) the data were
588 collected. Do not include statistics (e.g. *P*-values) or other statements of results in the titles. In
589 rare cases, titles or footnotes of tables and figures may be cross-referenced to avoid repeating

590 long footnotes or the same data; however, this violates the self-explanatory rule and should be
591 avoided. Combine figure legends on a separate page and include them with manuscript text
592 (following Literature Cited). Include tables at the end of the text (following the figure captions
593 or Literature Cited). Submit figures in AT separately from your text file. You may include all of
594 your figures in one file or submit each figure file separately.

595 **Tables**

596 Do not prepare tables for small data sets, those containing many blank spaces, zeros, repetitions
597 of the same number, or those with few or no significant data. Put such data or a summary of
598 them in the text. Day (1983) presents a practical discussion of tables.

599 For data that must be shown in a table, items that provide the most important comparisons
600 usually read vertically, not horizontally. Construct tables for column-width (67 mm) printing. If
601 the table will not fit in one column width, construct it for page-width printing not wider than 23
602 cm (9 inches). Some extra-wide tables can be printed vertically (e.g., *JWM* 50:192, 51:461), but
603 such tables usually waste space. Extra-long and extra-wide tables require persuasive
604 justification.

605 Table titles may vary, but we recommend this sequence: 1) name of the characteristic that
606 was measured (e.g., mass, age, density), 2) measurement unit or units in parentheses (e.g., cm,
607 No./ha, M:100 F, or %), 3) name of organism or other entity measured (e.g., “of Canada geese”),
608 and 4) location(s) and date(s). Each part of the sequence can include >1 item (e.g., “Carcass and
609 liver fat [%] and adrenal and kidney weight [mg] of white-tailed deer in Ohio and Michigan,
610 USA, in 1975”). Do not include statistics or statements of results (e.g. *P*-values) in the title.
611 Please note that even though AT provides boxes to insert table captions and figure legends,
612 captions and legends must also be included at the end of the manuscript text file.

613 Avoid beginning the title with superfluous words (e.g., The..., Summary of..., and
614 Comparisons between...) and words that can be presented parenthetically as symbols or

615 abbreviations (e.g., %). Symbols such as n and % in the title seldom need repetition in table
616 headings. Do not use abbreviations in table title, except within parentheses. However, use
617 standard abbreviations and symbols (Appendix C) in the table body and in footnotes (Table 4).

618 The lines printed in tables are called rules, and they should be used according to the
619 following standards:

- 620 1. None drawn vertically within the table.
- 621 2. Each table contains at least 3 rules – below the title, below the column headings, and at the
622 bottom. Insert each as a single, continuous line. Do not use bold or extra-thick rules.
- 623 3. Use rules that straddle subheadings within the column heading (e.g., *JWM* 50:48).
- 624 4. None to show summation; use “Total” or equivalent in the row heading.
- 625 5. Do not use rules to join the means in multiple-range tests. Use Roman upper-case letters
626 instead of rules (e.g., 12.3A^a, 16.2A, and 19.5B) where the superscript “a” references a
627 footnote (e.g., “^aMeans with the same letters are not different ($P > 0.10$)”; *JWM* 50:22).
628 Upper-case letters may be used in a similar fashion to reference the relationship of data
629 among columns (e.g., *JWM* 50:371).
- 630 6. Use straddle rules in column headings to join related columns and reduce wordage (e.g.,
631 *JWM* 50:31). Label columns to avoid unnecessary print in the data field. For example,
632 instead of “ $\bar{x} \pm SE$,” label \bar{x} and SE separately so that \pm need not be printed. Similarly,
633 label sample size columns “ n ” instead of using numbers in parentheses in the data field.
634 Keep column- and row-heading words out of the data field. Type main headings flush
635 left, and indent their subheadings (e.g., *JWM* 50:86). For column- and row-headings, only
636 capitalize the first word and proper nouns (e.g., No. of times detected in NV), and do not use
637 bold font. In the data field, do not use dashes (often misused to mean no information) or zeros
638 unless the item was measured, and 0, 0.0, or 0.00 correctly reports the precision (measurement).
639 Similarly, respect digit significance in all numbers, particularly percentages. Do not use

640 percentages where n is <26 , except for 1 or 2 samples among several others where n is >25 .
641 Where the number of significant digits varies among data in a column, show each datum at its
642 precision level (i.e., do not exaggerate precision). For P values only use 3 digits past the
643 decimal, and do not list $P = 0.000$; the correct form is $P \leq 0.001$. Do not use naked decimal
644 points in the data field (e.g., use 0.057 instead of .057).

645 For footnote superscripts use asterisks for probability levels and lower-case Roman (not
646 italic) letters for other footnotes. Place letters alphabetically in the following sequence: in the
647 title, then left-to-right, and then down. Make certain that each footnote character in the title and
648 table matches an explanation in a footnote that is indented below the table. Left-justify run-on
649 lines of footnotes. Use footnotes to reduce cluttering the title and table with details. The most
650 common errors in tables are single spacing, incomplete titles, naked decimal points, and
651 ambiguous or unnecessary characters in the data field.

652 **Figures**

653 Most figures are either line (or computer) drawings or pictures (picture is used to distinguish
654 scene or object photographs from photos of drawings). If possible, photographic prints should
655 not exceed 20×25 cm. Do not submit color figures unless you are able to pay for printing
656 (\$650/color plate in Aug 2007). For additional guidance, consult Allen (1977), the CBE Style
657 Manual Committee (1994:693–699), and Day (1983).

658 Begin figure captions on a new page immediately following the Literature Cited. Figure
659 captions tend to be longer than table titles because figures are not footnoted. The caption may be
660 several sentences and include brief suggestions for interpreting the figure content. Like table
661 titles, figure captions should allow the figure to be self-explanatory, describing the variables
662 displayed and where and when data were collected. Do not include statistical results in the
663 caption. Type the label of each figure (e.g., Figure 1, Figure 2) on the page containing that
664 figure.

665 *Pictures.*—Pictures must have sharp focus in the most important parts of the image, have
666 high tonal contrast, and have a reference scale if size is important. Letters, scales, or pointers
667 can be drawn on the prints, but they must be of professional quality. Sets of 2–4 related pictures
668 can be handled as one figure if prints are the same width and will fit in a space $67 \times <170$ mm
669 when reduced for printing, but please mount them together prior to submitting the figure. All
670 image files must have a resolution of >200 dots per inch (dpi) at final printing size. Allen Press
671 does not retouch or resize photos, so submit only print-quality images.

672 *Line drawings.*—Consider whether a drawing can be printed column width (67 mm) or is
673 so detailed that it must be printed page width (138 mm). The difference depends mainly on size
674 of characters and lengths of legends drawn on the figure. If page width is necessary, consider
675 omitting some detail and look for ways to shorten legends. Column-width figures are preferred
676 (e.g., *JWM* 50:145).

677 Before revising the first sketch, determine the minimum height for letters, numbers, and
678 other characters, which must be ≥ 1.5 mm tall after reduction for printing. Determine width in
679 millimeters for the revised sketch. To determine the minimum height (mm) for characters,
680 multiply the width by 0.0224 for column-width printing or 0.0109 for page-width printing. If in
681 doubt as to printed width, use the column-width multiplier. The product is the minimum height
682 in millimeters. Use at least the next larger character height available. Hand-drawn lines and
683 lettering and typewriter characters are not acceptable. We recommend professionally prepared
684 line drawings.

685 Only capitalize the first word and proper nouns on axis labels and keys. Lettering within
686 figures follows the same guidelines as manuscript text. Use italic letters only where they are
687 essential to the meaning, as in mathematical terms and most metric units (see Math and Statistics
688 section above and Appendix C). Identify arbitrary symbols by legend within the figure
689 (preferred) or, for those normally available to the printer (e.g., CBE Style Manual Committee

690 [1994:693–699]), in the figure title.

691 **FORMAT FOR COVER ART SUBMISSIONS**

692 Submit cover art only after your manuscript has been accepted for publication. If you have a
693 photo that you would like us to consider, please email your photo as an attachment to
694 jwm@wildlife.org. We prefer EPS or tif files, and jpg files must be the highest resolution
695 (minimum of 300 dpi). Submissions must be pre-sized to 8 1/2 × 8 1/2 or larger. If your photo is
696 selected for cover art, you will need to complete a signed release form.

697 **REVIEW PROCESS**

698 Upon receipt, the editorial staff examines a manuscript for proper style, format, and appropriate
699 subject matter. If style and format are seriously flawed, the paper likely will be returned for
700 revision before being sent to referees. If subject matter is obviously inappropriate, the EIC will
701 return the paper to the author with an explanatory letter.

702 The Editorial staff or EIC selects an AE who handles the initial review process. The
703 manuscript is assigned to ≥ 2 reviewers. All reviews are submitted electronically via AT.
704 Reviewers' comments are sent to the AE, who usually takes 1 of 3 actions after assessing the
705 manuscript and review comments: 1) the manuscript is forwarded to the EIC with a
706 recommendation to publish without revision (extremely rare), 2) the manuscript is returned to the
707 author with review comments and suggestions for revision (ranging from minor to major), or 3)
708 the manuscript is rejected.

709 Several revisions may be necessary before the AE recommends rejection or acceptance to
710 the EIC. Typically, manuscripts returned to authors for revision must be resubmitted as a
711 revision on AT within 6 months or the manuscript will be rejected, requiring resubmission as a
712 new paper. However, the EIC may require revisions in less time, depending on circumstances
713 surrounding the paper. Final acceptance or rejection of manuscripts is decided by the EIC.
714 Typically, the EIC follows the AE's recommendation but this is not guaranteed.

715 **Peer-Refereed Manuscripts**

716 The Editorial staff assigns peer-refereed manuscripts that have been approved for review to 2
717 qualified referees. The staff considers expertise, affiliation, geographic location, date of last
718 review, and performance on previous reviews when selecting referees.

719 Referees are emailed and asked to complete their review within 3 weeks. Referees have
720 immediate access to the manuscript once they accept the assignment. Reminder notices are sent
721 on a regular basis until the review has been received. Despite these measures, it is sometimes
722 necessary to replace delinquent referees. It may take >2 months before the AE receives a
723 complete set of reviews.

724 Occasionally, the EIC or AE judges that a referee's comments reveal biases, lack
725 objectivity or detail, are illogical, or otherwise lack merit. In such cases the EIC or AE may
726 request an additional review from an additional referee, or ask for a manuscript revision despite
727 negative comments from 1 or 2 referees. A second opinion from referees who recommended
728 rejection also may be requested, particularly on manuscripts that are considered further following
729 major revisions.

730 Manuscripts returned to authors for revision must be revised and returned to the AE
731 within a reasonable deadline set by the AE or the manuscript will be withdrawn from the review
732 process, requiring resubmission of the manuscript for further consideration. Once a completed
733 revision is returned, the revised manuscript is reviewed again by the AE (and sometimes sent out
734 for additional peer review) and either rejected or forwarded to the EIC with a recommendation to
735 accept the manuscript for publication. The revision process often requires several iterations
736 before the AE makes a final decision.

737 Acceptance and Rejection Policies

738 Final acceptance of manuscripts is decided by the EIC. The EIC bears final responsibility for the
739 value and quality of materials that appear in *JWM* and makes decisions accordingly. These
740 decisions may differ from referees' comments seen by authors and recommendations made by
741 referees, including the AE. In rare instances, the EIC's decision to accept or reject a manuscript
742 will not agree with the recommendation made by an AE.

743 In rendering a decision, the EIC evaluates the manuscript and comments of the review
744 team. The following are some of the problems that typically result in rejection: 1) flaws in
745 design or logic that make the results invalid, biased, or questionable; 2) failure to contribute new
746 knowledge; 3) trivial subject matter; 4) previous publication of the same or closely related
747 material; 5) subject matter of local rather than regional, national, or international interest; and 6)
748 poor organization and presentation.

749 The author of a rejected manuscript may feel that referees' comments support publication
750 and that the editorial decision was wrong. The author should realize that the AE receives 2 sets
751 of comments from each referee, one open and one confidential. The confidential evaluation may
752 reveal weaknesses not mentioned in comments seen by the author. One referee may have
753 discovered weaknesses missed by the other referees. Both confidential and open comments
754 factor into the recommendation made to the EIC by the AE. Further, the EIC may identify
755 problems missed by both referees and the AE.

756 *Appeal and resubmission.*—The author may question the reasons for rejection by writing
757 the EIC, stating his or her case, and asking for reconsideration. Reconsideration of a rejected
758 manuscript requires a convincing rebuttal letter from the author(s). Authors should not revise
759 and resubmit the manuscript without first writing a letter requesting reconsideration, which saves

760 time for the EIC and the author.

761 *Accepted manuscripts.*—Once a manuscript is accepted, it enters the queue for
762 publication and usually is printed in the next available issue. Accepted manuscripts go through 2
763 stages before publication: 1) final edit by *JWM* staff for content-related issues and general
764 formatting and 2) copyediting and typesetting by the production staff. Authors are contacted
765 during both stages. All correspondence is conducted via email, so authors should make sure the
766 email address on their homepage is current at all times. Authors will be given a reasonable
767 amount of time to respond. Delays in submitting revisions may result in the manuscript being
768 carried over to a future issue or even rejected.

769 *Page proofs.*—The final production stages of the TWS publications are handled by Allen
770 Press (Lawrence, KS.). Page proofs of each paper are created by Allen Press and sent to each
771 corresponding author. During the page proof stage, press deadlines are fast approaching and
772 author corrections to page proofs are urgently needed, preferably within 48 hours of their receipt.
773 Corrections should be e-mailed, faxed, phoned in, or sent by overnight or 2-day delivery,
774 depending on how complicated they are. It is important that authors clearly communicate their
775 recommended changes, mark proofs clearly, or describe changes in detail. Make only essential
776 changes to page proofs. Authors are allowed 5 minor changes to page proofs free of charge, and
777 authors will be charged \$5 per additional change. After the issue goes to print, authors will
778 receive a bill for changes made to page proofs.

779 **ACKNOWLEDGMENTS**

780 These guidelines have been compiled from previous versions of *Journal of Wildlife Management*
781 and *Wildlife Society Bulletin* guidelines and were compiled by the cooperative efforts of J.
782 Wallace, R. Britton, T. Estabrook, and C. Johnson. We gratefully acknowledge the work of

783 those previous authors that made this effort easier. We also thank our authors, reviewers, AEs,
784 and EICs, past, present, and future.

785 **LITERATURE CITED**

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787 American Ornithologists' Union. 1997. Check-list of North American birds. Seventh edition.
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833 *Note:* Many citations that were used in the guidelines text as examples do not appear in the
834 Literature Cited section above.

835 Immediately below the Literature Cited section type the following in italics:

836 *Associate Editor:*

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857 Table 1. Common expressions with superfluous words

858

859

860 Superfluous wording^a

Suggested substitute

861

862

863

864 the purpose of this study was to test the hypothesis

I (or we) hypothesized

865 in this study we assessed

we assessed

866 we demonstrated that there was a direct

we demonstrated direct

867 were responsible for

caused

868 played the role of

were

869 on the basis of evidence available to date

consequently

870 in order to provide a basis for comparing

to compare

871 as a result of

through, by

872 for the following reasons

because

873 during the course of this experiment

during the experiment

874 during the process of

during

875 during periods when

when

876 for the duration of the study

during the study

877 the nature of

(omit by rearrangement)

878 a large (or small or limited) number of

many (or few)

879 conspicuous numbers of

many

880 substantial quantities

much

881 a majority

most

882 a single

one

883 an individual taxon

a taxon

884
885

886

887 Table 1. Continued.

888

889

890 Superfluous wording

Suggested substitute

891

892

893

894 seedlings, irrespective of species

all seedlings

895 all of the species

all species

896 various lines of evidence

evidence

897 they do not themselves possess

they lack

898 were still present

persisted, survived

899 the analysis presented in this paper

our analysis

900 indicating the presence of

indicating

901 despite the presence of

despite

902 checked for the presence of

checked for

903 in the absence of

without

904 a series of observations

observations

905 may be the mechanism responsible for

may have caused

906 it is reasonable to assume that where light

907 is not limiting

with light not limiting

908 in a single period of a few hours

in a few hours

909 occur in areas of North America

are in North America

910 adjacent transects were separated by at least 20 m

 ≥ 20 m apart

911 in the vicinity

nearby

912 separated by a maximum distance of 10 m and

913 a minimum distance of 3 m

3–10 m apart

Table 1. Continued.

Superfluous wording	Suggested substitute
the present-day population	the population
their subsequent fate	their fate
whether or not	whether
summer months	summer
are not uncommon	may be
due to the fact that	(omit by rearrangement)
showed a tendency toward higher survival	had higher survival
devastated with drought-induced desiccation	killed by drought

^aMack (1986:33). Reprinted with permission from the Ecological Society of America.

Table 2. Commonly misused words.

Word and proper usage^a

accuracy (see precision): extent of correctness of a measurement or statement.

affect (see effect): verb, to cause a change or an effect; to influence.

among (see between): use in comparing >2 things.

between (see among): use in comparing only 2 things.

cf.: compare

circadian: approx 24 hr.

continual: going on in time with no, or with brief, interruption.

continuous: going on in time or space without interruption.

diurnal: recurring every 24 hr; occurring in daylight hr.

effect (see affect): usually a noun, the result of an action; as an adverb (rare), to bring about or cause to exist, or to perform.

e.g. (see i.e.): for example.

enable (see permit): to supply with means, knowledge, or opportunity; to make possible.

ensure (see insure): to make certain or guarantee.

farther: more distant in space, time, or relationship.

further: going beyond what exists, to move forward.

i.e. (see e.g.): that is.

incidence (see prevalence): no. of cases developing per unit of population per unit of time.

insure (see ensure): to assure against loss.

livetrapping: verb.

live trap: noun.

Table 2 continued.

Word and proper usage

logistic: symbolic logic.

logistics: operational details of a project or activity.

mass (see weight): proper international use for measures of mass.

ovendry: adjective.

oven-dry: verb.

percent: adjective, adverb, or noun. Spell out only when the value is spelled out or when used as an adjective. Use “%” with numerals.

percentage: noun, part of a whole expressed in hundredths; often misused as an adjective, e.g., percent error, not percentage error.

permit (see enable): to allow, to give formal consent.

precision (see accuracy): degree of refinement with which a measurement is made or stated; e.g., the no. 3.43 shows more precision than 3.4, but is not necessarily more accurate.

prevalence (see incidence): no. of cases existing per unit of population at a given time.

sensu: as understood or defined by; used in taxonomic reference.

since: from some past time until present; not a synonym for “because” or “as.”

presently: in the future, not synonymous with “at present” or “currently.”

that (see which): pronoun introducing a restrictive clause (seldom immediately preceded by a comma).

usage: firmly established and generally accepted practice or procedure.

utilization, utilize: avoid by using “use” instead.

various: of different kinds.

Table 2 continued.

Word and proper usage

varying: changing or causing to change. Do not use for different.

very: a vague qualitative term; avoid in scientific writing.

weight (see mass): should seldom be used.

viz: namely.

which (see that): pronoun introducing a nonrestrictive clause (often preceded by a comma or preposition [for, in, or of which]); the word most often misused in *JWM* manuscripts.

while: during the time that. Use for time relationships but not as synonym for “whereas,” “although,” and “similarly,” which do not imply time.

^aAdapted in part from CBE Style Manual Committee (1994:123–125); also see Day (1983:140–142).

Table 3. Format and style guidelines for tables accompanying manuscripts submitted to *Journal of Wildlife Management*.

Item	Style rule
Abbreviations	Use standard abbreviations.
Capitalization	Capitalize only the first letter for a column heading or phrase within a table.
Column heads	Required for each column. Do not submit tables with unlabeled columns.
Footnotes ^a	Use alphabetical superscripts, except for footnotes specifying probability levels.
Spacing	Double-space throughout, including title and footnotes.

^a Indent the first line of a footnote 2 spaces. The remaining lines are flush with the left margin and double spaced. See **Tables** section above for sequence of footnotes.

Table 4. Example of correct format of tables accompanying manuscripts submitted to *Journal of Wildlife Management*.

Site ^a	Animal group			
	Avian		Mammalian	
	Insectivorous	Carnivorous	Insectivorous	Carnivorous
Xeric	5	3	2	4
Mesic	7	5	1	3
Hydric	12	7	5	8

^aFor footnotes, use lower-case, Roman letters. Indent the first line of the footnotes 2 spaces, and left-justify all run-on lines. Use asterisks for probability levels.

APPENDIX A. ON-LINE MANUSCRIPT SUBMITTAL

We outline the basic steps of the online submission process in this Appendix. Before submitting manuscripts, please review the *Journal of Wildlife Management Manuscript Guidelines* and ensure that your manuscript is formatted accordingly. Manuscripts that seriously deviate from the requested format will be returned to authors, which could result in unnecessary delays.

Submit manuscripts on the *Journal of Wildlife Management* AllenTrack (AT) website:

<http://jwm.allentrack.net/>.

Logging in to Your AllenTrack Account

To create a new AT account or find out if you already have an account, go to the above-noted website, click “new authors should register for an account,” and provide the requested information. Please note that you do not have to be an author to have an account. If you forget your login name or password, click the “forgot my password” link on the AT mainpage, enter the requested information, and AT will email you your login name and a temporary password. If you do not receive the email from AT within a few hours, please contact the editorial office.

Your AllenTrack Homepage

Having successfully logged in to AT, you will be taken to your *JWM*. There, under “Author Tasks,” you will see the following options: “Author instructions,” “Submit presubmission inquiry,” and “Submit manuscript.” There also is a “General Tasks” heading with the options “Modify profile/password” and “logout.” You can use this “General Tasks” link to update your profile (e.g., change your contact information, add or delete key words) and to modify your password. We encourage you to log in to your homepage to access all AT tasks (e.g., submitting a manuscript or review, checking the status of your manuscript). The links embedded in emails you receive from *JWM* are task-specific and, once that task has been completed, the links will no longer work. If you are reviewing a manuscript for the publication, there will also be links on your home page for that task.

Submitting your Manuscript

You will be taken through a series of 4 screens as you submit your manuscript:

1. The first screen is a form asking for author, title, abstract, and file quantities. You will be asked to enter corresponding author information first and contributing author information later. Do not enter the corresponding author information again as a contributing author. Recognizing that the corresponding author is not always the first author, you will be

asked to select an order for each author entered. You will also be asked to provide email addresses for your co-authors. You will not be able to proceed without this information, so if a co-author does not have an email address, or if it is unavailable, make one up (e.g., unknown@unknown.com). On the first screen, you will be asked to enter the title, running head, and abstract. Reviewers do not see the submittal form, so you must include title, running head, and abstract in the manuscript as well. At the end of the first screen you will be asked to identify how many files will be uploaded (cover letter, article file, color figure[s], black and white figure[s], tables, data sets, supplemental material, author pictures or supplemental pictures). You may “save and continue,” “save and exit,” or “cancel” at any time.

2. The second screen provides you with browser buttons to upload your file(s). The *JWM* accepts manuscripts in Word (.doc) only. Tables must be submitted as part of the manuscript text file. Keep table headings with the table. Include tables immediately after Literature Cited. Figures must be uploaded as separate files. Include figure titles at the end of the manuscript text file following Literature Cited and tables. Multiple figures may be uploaded as individual files, but keep each figure on its own page. Label and mount figure parts (e.g., Fig 3A, Fig 3B) together into a single figure as they are meant to appear in print. Failing to do so may result in additional charges during typesetting. The boxes that are provided in AT for table headings and figure captions are not transferred to the reviewer PDF files, so you must keep this information in the manuscript. Once you have uploaded all files, click “submit” to submit the manuscript files. If you have multiple article files, you will be asked to order them so that a merged PDF file can be created for the reviewers.

3. The third screen is a completion screen that will provide you with a manuscript number for your submission (e.g., 2005-821). Please use this manuscript number in all correspondence. During this stage, all files will be converted to PDF format, which takes up to 30 minutes. If the conversion takes >30 minutes, please contact the editorial office. Some common reasons that files do not convert properly include large files (i.e., Geographic Information System [GIS]-related images), incompatible file formats (we only accept .doc, .tif, .jpg, .pdf, .eps, .xls, and .ppt.), and embedded links. You can leave AT while the files convert and return to your manuscript at a later time. However, you do need to review and approve the converted PDF files before they are forwarded to the editorial office.
4. The final screen allows you to verify that your manuscript was uploaded and converted correctly. You can make corrections at this stage (e.g., replace, delete, or rename a file). Once you approve the converted files, your manuscript is sent to the editorial office. The *JWM* editorial office will send you an email confirming that your submission has been received. If you do not receive an email within 2 days of submission, please contact the editorial office.

If you are asked to revise your manuscript, the corresponding email will contain a link to your manuscript in AT. Again, you can reach the manuscript by logging on as described above. You will not be required to re-enter the manuscript metadata. Instead, when ready, REPLACE and ADD files as necessary. Files that have not been edited and are to remain with the current manuscript version may be left as is (e.g., figure files). DELETE any files that are no longer part of the current version. Allen Track saves a copy of the original submittal, and carrying old files forward may create confusion. Upload a cover letter with your revision that details how you responded to Associate Editor, EIC, and reviewer comments.

APPENDIX B. LITERATURE CITED

Type the Literature Cited immediately following the text, not necessarily on a new page.

Double-space Literature Cited and use hanging indents for second and subsequent lines of a citation. Spell out all words in the Literature Cited (i.e., do not use abbreviations). However, the following 3 exceptions are allowed in author and publisher locations: 1) Washington, D.C., 2) U.S. (e.g., U.S. Forest Service), and 3) USA. Alphabetize by authors' surname(s), regardless of the number of multiple authors for the same publication. Within alphabetical order the sequence is chronological (e.g., Benton 1980, Benton 1991, Benton and Madison 1979). Spell out all author names instead of using dashes.

Use sentence-case letters for all names in Literature Cited, and place a comma between all names, even if there are only 2 (e.g., Schmidt, B. R., and J. Pellet). Use 2 initials (where appropriate) with one space between each initial. Only reverse the name order of the first author (e.g., Thogmartin, W. E., J. R. Sauer, and M. G. Knutson). For serial publications, show the issue number only if the pages of each issue are numbered separately. As in the text, spell out ordinal numbers (e.g., Third edition). Do not include words such as Publishing, Inc., or Company. Use the word Thesis to denote Master of Science (M.S.) or Master of Arts (M.A.), and use the word Dissertation for Doctor of Philosophy (Ph.D.). Do not write the total page number of books at the end of the citation. For foreign language publications, note the language of publication at the end of the citation in brackets (e.g., [In Spanish.]).

To document a file available for viewing and downloading via the World Wide Web, provide the following information: author's or organization's name (if known), date of publication or last revision, title of document, title of complete work (if relevant), URL, and date of access. Please review the following examples.

Book: General Format

McCullough, D. R. 1979. The George Reserve deer herd: population ecology of a K-selected species. University of Michigan, Ann Arbor, USA.

Miller, K. V., and L. Marchinton. 1995. Quality whitetails: the why and how of quality deer management. Stackpole, Mechanicsburg, Pennsylvania, USA.

Note: Do not write the total page number of books at the end of citations.

Book: More Than 1 Edition

Smith, R. L. 1974. Ecology and field biology. Second edition. Harper and Row, New York, New York, USA.

Book: More Than 1 Publisher

Sowls, L. K. 1955. Prairie ducks: a study of their behavior, ecology, and management. Stackpole, Harrisburg, Pennsylvania, and Wildlife Management Institute, Washington, D.C., USA.

Gutiérrez, R. J., A. B. Franklin, and W. S. LaHaye. 1995. Spotted owl (*Strix occidentalis*). Account 179 in A. Poole and F. Gill, editors. The birds of North America, The Academy of Natural Sciences, Philadelphia, Pennsylvania, and The American Ornithologists' Union, Washington, D.C., USA.

Book: More Than 1 Volume

Palmer, R. S. 1976. Handbook of North American birds. Volume 2. Yale University Press, New Haven, Connecticut, USA.

Book: Editor as Author

Temple, S. A., editor. 1978. Endangered birds: management techniques for preserving threatened species. University of Wisconsin Press, Madison, USA.

Note: If the state (or province) appears in the publisher or agency name, it need not be repeated

after the city.

Book: Reprint

Leopold, A. 1933. *Game management*. 1946, Reprint. Charles Scribner's Sons, New York, New York, USA.

Book: Chapter

Zeleny, L. 1978. Nesting box programs for bluebirds and other passerines. Pages 55–60 in S. A. Temple, editor. *Endangered birds: management techniques for preserving threatened species*. University of Wisconsin Press, Madison, USA.

Foreign Language Publication

Angulo, E. 2003. Factores que afectan a la distribución y abundancia del conejo en Andalucía. Dissertation, Complutense University, Madrid, Spain. [In Spanish.]

Government Publication

Lull, H. W. 1968. *A forest atlas of the Northeast*. U.S. Forest Service, Northeast Forest and Experiment Station, Upper Darby, Pennsylvania, USA.

Government Publication: Part of a Numbered Series

Anderson, D. R. 1975. Population ecology of the mallard: V. Temporal and geographic estimates of survival, recovery, and harvest rates. U.S. Fish and Wildlife Service Resource Publication 125, Washington, D.C., USA.

Government Publication: Agency as Author

National Research Council. 1977. *Nutrient requirements of poultry*. Seventh edition. National Academy of Science, Washington, D.C., USA.

Note: Cite in text as National Research Council (1977) or parenthetically as (National Research Council 1977). For additional examples, see the Literature Cited section of this manuscript.

Journals: General Format

Miller, M. R. 1986. Molt chronology of northern pintails in California. *Journal of Wildlife Management* 50:57–64.

Steigers, W. D., Jr., and J. T. Flinders. 1980. A breakaway expandable collar for cervids. *Journal of Mammalogy* 61:150–152.

Note: Issue numbers are included only if the pages of each issue are numbered separately.

Journals in Press: Year and Volume Known

Zelenak, J. R., and J. J. Rotella. 1997. Nest success and productivity of ferruginous hawks in northern Montana. *Canadian Journal of Zoology* 75:in press.

Journals in Press: Year and Volume Unknown

Giudice, J. H., and J. T. Ratti. In press. Biodiversity of wetland ecosystems: review of status and knowledge gaps. *Bioscience*.

Multiple Citations of the Same Author(s)

Peek, J. M. 1963. Appraisal of a moose range in southwestern Montana. *Journal of Range Management* 16:227–231.

Peek, J. M. 1986. A review of wildlife management. Prentice-Hall, Englewood Cliffs, New Jersey, USA.

Peek, J. M., and A. L. Lovaas. 1968. Differential distribution of elk by sex and age on the Gallatin winter range, Montana. *Journal of Wildlife Management* 32:553–557.

Peek, J. M., A. L. Lovaas, and R. A. Rouse. 1967. Population changes within the Gallatin elk herd, 1932–1965. *Journal of Wildlife Management* 31:304–316.

Peek, J. M., and R. A. Rouse. 1966. Preliminary report on population changes within the Gallatin elk herd. *Wildlife Science* 82:1298–1316.

Note: fictitious citation used for example only.

Software Package

SAS Institute. 2001. Version 8.02 user manual. SAS Institute, Cary, North Carolina, USA.

Note: For statistical software, only include the software in **Literature Cited** if you are referencing the software manual.

Symposia and Proceedings: Complete Volume

DeGraaff, R. M., technical coordinator. 1978. Proceedings of workshop on management of southern forests for nongame birds. U.S. Forest Service General Technical Report SE-14, Washington, D.C., USA.

Symposia and Proceedings: Individual Article

Dickson, J. G. 1978. Forest bird communities of the bottomland hardwoods. Pages 66–73 *in* R. M. DeGraaf, technical coordinator. Proceedings of workshop on management of southern forests for nongame birds. U.S. Forest Service General Technical Report SE-14, Washington, D.C., USA.

Symposia and Proceedings: Part of a Numbered Series

Palmer, T. K. 1976. Pest bird control in cattle feedlots: the integrated system approach. Proceedings of Vertebrate Pest Conference 7:17–21.

Symposia and Proceedings: Complete Volume (not part of a numbered series)

McAninch, J. B. 1995. Urban deer: a manageable resource? Proceedings of the symposium of the 55th Midwest Fish and Wildlife Conference. North Central Section of The Wildlife Society, 12–14 December 1993, St. Louis, Missouri, USA.

Note: Include dates and location with these citations.

Symposia and Proceedings: Individual Article (not part of a numbered series)

Stout, S. L., and R. Lawrence. 1996. Deer in Allegheny Plateau forests: learning the lessons of scale. Pages 92–98 *in* Proceedings of the 1995 Foresters Convention. Society of

American Foresters, 28 October–1 November 1995, Portland, Maine, USA.

Note: Include dates and location with these citations.

Theses or Dissertations

Brelsford, M. A. 1991. Effects of grazing by wapiti on winter wheat and winter rapeseed, and the effects of simulated wapiti use on winter wheat in northern Idaho. Thesis, University of Idaho, Moscow, USA.

Tacha, T. C. 1981. Behavior and taxonomy of sandhill cranes from mid-continent North America. Dissertation, Oklahoma State University, Stillwater, USA.

Web Citation: Professional Site

Council of Biology Editors [CBE]. 1999. CBE home page. <<http://www.councilscienceeditors.org>>. Accessed 7 Oct 1999.

Web Citation: Article in an Electronic Journal (ejournal)

Browning, T. 1997. Embedded visuals: student design in Web spaces. *Kairos: A Journal for Teachers of Writing in Webbed Environments* 3(1). <<http://english.ttu.edu/kairos/2.1/features/browning/bridge.html>>. Accessed 21 Oct 1997.

Web Citation: Government Publication

National Oceanic and Atmospheric Administration [NOAA]. 2005. National Weather Service internet services team. Monthly precipitation for Reno, Nevada. <http://www.wrh.noaa.gov/rev/hydrology/monthly_precip.php>. Accessed 23 Aug 2005.

Newspaper, Newsletter, and Magazine Articles

Associated Press. 1997. Feathers could fly over dove hunting. *Columbus Dispatch*. 28 December 1997; section E:15.

Eisler, P., and J. T. Buckley. 1996. Voters to get a shot at hunting laws. *USA Today*. 25 April

1996; section A:4.

Hogan, M. 1997. Political season as important as hunting season. *Safari Times* 9(8):18.

Jones, D. M. 1997. Protecting animals at the ballot box. *Mainstream, Animal Protection Institute*. Spring:24–27.

Jones-Jolma, D. 1993. The fight to reform trapping in Arizona. *The Animals' Agenda*. March–April:20–24.

Note: Citing from newspapers, newsletters, and magazines is discouraged and is only acceptable in certain rare circumstance (e.g., in papers dealing with public perceptions).

Court Cases

Cite complete title and year of case in text only.

APPENDIX C. REQUIRED ABBREVIATIONS FOR TABLES, FIGURES, AND PARENTHETIC EXPRESSIONS

Abbreviate the following terms in parentheses, tables, and figures, but do not abbreviate these terms in regular text. Do not define terms listed in this table; however, all additional abbreviations must be defined the first time they appear in the text. No additional metric abbreviations (identified with an asterisk) are allowed.

Term	Abbreviation or symbol	Term	Abbreviation or symbol
Adult	ad	Logarithm, base e	ln or log _e
Amount	amt	Logarithm, base 10	log ₁₀
Approximately	approx.	Male	M
Calorie	cal*	Maximum	max.
Celsius	C*	Meter ^a	m*
Chi-square	χ^2	Metric Ton	t
Coefficient	coeff.	Minimum	min.
Confidence interval	CI, $a \leq \bar{x} \leq a$	Minute	min
Confidence limits	CL, $x \pm a$	Month names	Jan, Feb, etc.
correlation, simple	r	More than/Greater than	>*
Determination, multiple	R^2	Multiple	R
Determination, simple	r^2	Number (of items)	no.
Degrees of freedom	df	Observed	obs
Diameter	diam	Parts per billion	ppb*

Diameter, breast height	dbh	Parts per million	ppm*
Directions	N, S, E, W, NE, NW, etc.	Percent	%*
Equation(s)	eq(s)	Population size	N
Expected	E	Probability ^b	P
Female	F	Sample size	n
F ratio	F	Sample mean (of x)	\bar{x}
Gram	g*	Spearman rank correlation	r_s
Gravity	g	Standard deviation (s)	SD
Hectare	ha*	Standard error ($s_{\bar{y}}$)	SE
Height	ht	Student's t	t
Hotelling's T^2	T^2	Temperature	temp
Hour(s)	hr	Trace ^c	tr
Joule	J*	Variation	CV
Juvenile	juv	Versus	vs.
Kilocalorie	kcal*	Volt	V*
Lethal concentration, 50%	LC ₅₀	Volume: liquid, book	vol, Vol.
Lethal dose, median	LD ₅₀	Weight	wt
Less than	<*	Wilcoxon test	T
Limit	lim	Year(s)	yr
Liter	L*	Z-statistic	Z*

^aAll standard meter-based measurement units must be abbreviated in text when they appear

after a number (e.g., mm, cm, km, etc.)

^b Use *P* to indicate a specific probability value (e.g., $P < 0.001$), but not in more broad definitions in column-headings or axis labels [e.g., Probability that a juv survives first yr].

^c Define in a footnote (e.g., $tr = <1\%$.)