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8 RH: Jacques et al.: PNAT Manuscript Submission Guidelines  
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### 10 **The Prairie Naturalist Manuscript Submission Guidelines**

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15 **ABSTRACT** These guidelines present *The Prairie Naturalist (PNAT)* policies and procedures  
16 for submitting scientific manuscripts for consideration for publication. In January 2009, a  
17 change in Editorial staff occurred and these guidelines address the ongoing transition and update  
18 the online “Suggestions for Contributors” guidelines provided on the *PNAT* website  
19 (<http://www.fhsu.edu/biology/pn/prairienat.htm>); these instructions supersede all previous  
20 guidelines. Tables and appendices are included for common word expressions with superfluous  
21 wording (Table 1), examples of correct format and style guidelines for tables accompanying  
22 manuscripts (Tables 2–4), guidance in properly preparing Research notes (Appendix A) and  
23 citing literature (Appendix B), and mandatory abbreviations for tables, figures and parenthetical  
24 expressions (Appendix C).

25 **KEY WORDS** author, format, instructions, manuscript, policy, style, submission guidelines  
26

27 Publishing a scientific paper proceeds most smoothly if authors understand the policy,  
28 procedures, format, and style of the outlet to which they are submitting a manuscript

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29 (Chamberlain and Johnson 2007). Most scientific journals have unique styles, but subtle  
30 differences may not be readily detectable. Publishing directions for authors are usually entitled  
31 “guide for authors,” “instructions to authors,” or in the case of *PNAT*, “suggestions for  
32 contributors.” These guides are specific directions created to provide consistency in journal  
33 publications (Brown and Jenks 2009). If a specific instruction is unclear, an examination of  
34 papers in a recent issue will usually provide clarification, although format changes frequently  
35 occur with changes in journal editorship (Brown and Jenks 2009).

36 The typical organization and common elements of scientific papers found in *PNAT* are  
37 discussed in the following sections. These guidelines apply to all *PNAT* submissions and  
38 consequently supersede all previous journal guidelines. It is imperative that authors pay close  
39 attention to instruction details. A poorly written, disorganized paper or one that does not follow  
40 publishing instructions may be returned to authors for corrections before review or alternatively,  
41 without further consideration for publication.

## 42 **MANUSCRIPT SUBMISSIONS**

43 *The Prairie Naturalist* publishes manuscripts containing information from original  
44 research that contributes to the scientific foundations of the natural history and environment of  
45 the Great Plains region, including geology, plants, birds, mammals, fish, and invertebrates.  
46 Studies on grassland habitats in areas outside of the Great Plains region also will be considered  
47 for publication. *The Prairie Naturalist* only accepts manuscripts submitted electronically;  
48 authors should submit manuscripts as an email attachment directly to the Editor. Journal  
49 reviewers and editors evaluate each submitted manuscript relative to data originality, ecological  
50 concepts, interpretations, scientific accuracy, conciseness, clarity, appropriate subject matter, and  
51 contribution to existing literature (Chamberlain and Johnson 2007). However, manuscripts must

52 be based on information that has not previously been published or concurrently submitted for  
53 publication in other peer-reviewed journals. The seriousness of dual publication has previously  
54 been noted (Kendall 1981) and *PNAT* subscribes to these standards; dual publication of scientific  
55 information precludes review or publication in *PNAT*. However and in certain instances,  
56 guidelines for previous publication are flexible. Examples include technical analyses of findings  
57 published for lay audiences, data presented at scientific meetings, final reports required by  
58 funding agencies, or theses and dissertations (although theses and dissertations still need to be  
59 cited in the manuscript; see Citing Literature in text below).

#### 60 **Cover Letter**

61 Each publication is managed by the *PNAT* Editor. Direct cover letters to the Editor, and  
62 provide information that describes ethical and copyright considerations (Council of Biology  
63 Editors [CBE] Style Manual Committee 1994:599–600) and other relevant information that may  
64 facilitate review and editing. It is imperative that cover letters indicate that manuscripts are  
65 submitted for exclusive consideration by *PNAT*; without the exclusive consideration statement,  
66 the Editor will not initiate the peer-review process. This statement ensures that scientific data  
67 and pertinent results have not been published previously or submitted elsewhere for dual  
68 publication consideration.

#### 69 **Page Charges and Reprints**

70 Page charges are mandatory and the corresponding author is required to acknowledge that  
71 he or she accepts responsibility for page charges if the manuscript is deemed acceptable for  
72 publication following the peer-review process. Authors should note that *PNAT* does not print  
73 color images; charges for figures apply only to black and white images. As of 1 August 2009,  
74 page charges for published manuscripts are \$50.00 per page for Great Plains Natural Science

75 Society members and \$70.00 per page for non-members. Additional charges for figures and  
76 tables are as follows:

77         Figures \$10.00 each

78         Tables:         ½ page, 1-4 columns, \$15

79                         ½ page, 5 + columns, \$25

80                         full page, 1-4 columns, \$30

81                         full page, 5 + columns, \$50

82         Paper or PDF reprints may be ordered at the time page proofs are sent to authors.

83 Beginning with manuscripts submitted after 1 August 2009, cost of ordering a set of 100 paper  
84 reprints will be based on manuscript length: 1-4 pages = \$40, 5-8 pages = \$60, 9-12 pages =  
85 \$80, 13 + pages = \$100. The cost of ordering digital PDF reprints will be \$75, regardless of  
86 manuscript length. *The Prairie Naturalist* accepts page charge payments in the form of checks,  
87 money orders, government purchase orders, or credit cards.

## 88 **Copyright**

89         If manuscripts not in the public domain are accepted for publication, authors or their  
90 employers must transfer copyright to *PNAT* (Chamberlain and Johnson 2007). Manuscripts  
91 published by federal government employees are in the public domain (Chamberlain and Johnson  
92 2007). Submission of manuscripts implies entrusting copyright (or equivalent trust in  
93 public-domain work) to the Editor until manuscripts are either withdrawn from the peer-review  
94 process or a decision regarding acceptance or rejection is made. For manuscripts deemed  
95 acceptable for publication, *PNAT* retains copyright privileges. Copyright forms will be sent at  
96 the time page proofs are sent to corresponding authors. Due to rapidly approaching press  
97 deadlines, copyright forms and author corrected page proofs should be returned to the Assistant

98 Editor via email (prairie.naturalist@sdstate.edu), fax (605-688-4515), or sent by  $\leq 3$ -day delivery  
99 (South Dakota State University, Department of Wildlife and Fisheries Sciences, Northern Plain  
100 Biostress Laboratory, Room 138, Brookings, South Dakota, USA; Attention: *PNAT* Assistant  
101 Editor) within 72 hours of their receipt.

## 102 **FORMAT AND STYLE**

103 All manuscripts must adhere strictly to *PNAT* guidelines before they will be approved  
104 and subsequently sent out for peer-review. All manuscripts must be formatted as Microsoft  
105 Word documents; no other format will be accepted. The Journal standard for style is the CBE  
106 style manual (Scientific Style and Format: The CBE Manual for Authors, Editors, and  
107 Publishers. 6<sup>th</sup> Edition. Council of Biology Editors, Cambridge University Press).

## 108 **Types of Manuscripts**

109 *The Prairie Naturalist* considers manuscripts of varying lengths. The page numbers  
110 noted below include Literature Cited, tables, and figures. Authors should select from the  
111 following submission options based on total page length of their manuscripts:

112 1.  $\leq 10$  pages: *PNAT* Research Note. Notes provide a publication outlet for unreplicated  
113 (spatially or temporally) scientific investigations. However, Research notes are not  
114 intended to serve as an outlet for research that lacks appropriate scope. Research notes  
115 do not typically contain tables or figures, however, short tables and figures of relative  
116 importance to the manuscript may be included. Research notes do not have Abstract,  
117 Key Words, Study Area, Methods, Results, Discussion, or Acknowledgments headings.  
118 Additionally, author names and affiliations should be italicized, appear at the end of the  
119 note (and not in the beginning as in Research articles), and are preceded by a “period”  
120 and “em dash.” Authors should refer to Appendix A for additional information regarding

121 proper formatting of Research notes. All other style rules for Research articles apply to  
122 Research notes.

123 2. 11-50 pages: *PNAT* Research Article. Articles provide a publication outlet for  
124 replicated study designs that provide meaningful information pertaining to sound  
125 scientific theories and hypotheses. Articles contain sections with appropriate  
126 headings, including Abstract, Key Words, Study Area, Methods, Results, Discussion,  
127 Acknowledgments, and Literature Cited.

### 128 **Page Format General Guidelines**

129 The following general page formatting guidelines apply to all text files:

- 130 1. Manuscripts should be prepared in 8.5 x 11-inch format, single-sided, and  
131 double-spaced throughout; including title, authors' addresses, text, long quotations  
132 within text, literature citations, table footnotes, table titles, table bodies, and figure  
133 captions.
- 134 2. Do not hyphenate words on the right margin.
- 135 3. Do not justify the right margin.
- 136 4. Maintain margins of 2.5 cm (1 inch) on all sides of the page.
- 137 5. Italicize words or symbols, such as scientific names and mathematical symbols  
138 intended to appear italicized in print.
- 139 6. Use Times New Roman font, 12-point type throughout the manuscript, including the  
140 title and headings.

### 141 **Title Page: Running Head, Title, and Authors**

142 On page 1, single-space the following information in the upper left corner: date (should  
143 be updated with each revision) and the corresponding author's name, address, telephone and fax

144 numbers, and email (as presented in this document). Double-space all text thereafter, including  
145 authors' addresses, the manuscript title, figure captions, and tables. Should the corresponding  
146 author's email address change at any time following the submission of the manuscript, it is their  
147 responsibility to notify the editorial staff (Editor, Associate Editor, Assistant Editor) of such  
148 changes.

149 For all Research articles, a suggested running head (RH) should be typed on the first line  
150 following the corresponding author's address. The RH should be limited to  $\leq 6$  words,  
151 left-justified, and each important word capitalized (i.e., "PNAT Manuscript Submission  
152 Guidelines"). The RH should be preceded by a colon and either the last name(s) of  $\leq 2$  authors or  
153 in the case of  $\geq 3$  authors, the name of the first author followed by "et al.," (i.e., RH: Unsworth et  
154 al.: Elk Sightability Validation). For Research notes, a suggested running head should be  
155 included on all pages of the manuscript, including the title page. The RH should include the  
156 word "NOTES" in capital letters and left justified (i.e., RH: NOTES). The RH should not be  
157 italicized.

158 For Research articles, the manuscript title follows the RH and is centered in bold font,  
159 sentence-case letters, with important words capitalized as in the RH. The title should identify  
160 manuscript content, shall not exceed 10 words unless doing so forces awkward construction, and  
161 may not include abbreviations, acronyms, or punctuation. Further, use of scientific names in the  
162 title should be avoided except for organisms that do not have common names, or whose scientific  
163 names are easily confused with common names. Authors also should avoid the use of numbers  
164 in both the title and RH. For Research notes, the title is left-justified and capitalized and  
165 immediately following the title is an em dash, followed by the start of the body of the text (i.e.,

166 **MORTALITY OF AN AMERICAN MARTEN FROM AN OFF-HIGHWAY**

167 **VEHICLE**— Text body).

168 For Research articles, authors' names are centered in all capital letters. Author  
169 affiliations follow and are centered and given in sentence-case letters. The affiliation is usually  
170 where the author was employed during the study. In each address, use available United States  
171 Postal Service (USPS) abbreviations, zip codes, and the country (abbreviate "USA" but spell out  
172 all others). Write out words like Avenue, Boulevard, and Street, but abbreviate directions (i.e.,  
173 N. and S.W.). For multiple addresses, note which address is associated with each corresponding  
174 author by including the author's initials in parentheses at the end of the address. For Research  
175 notes, authors' names and affiliations appear at the end of the text body (Appendix A).

#### 176 **Footnotes**

177 Footnotes should be inserted using the footnote function. If an author's present address is  
178 different from the byline address, it should be noted only by using a footnote. Additionally,  
179 footnotes may only be used to note an author's email address, and to indicate a deceased author.  
180 Start each footnote with a numerical superscript.

#### 181 **Abstract**

182 Authors should begin this section with the word "**ABSTRACT**" (left-justified) in bold  
183 font. Abstract text begins after a single letter space on the same line and is a single paragraph  
184 not exceeding 3% of the length of the manuscript, including Literature Cited. The abstract  
185 includes a statement of the principal objectives or hypotheses tested during the study, a brief  
186 description of pertinent methods, a summary of main results (emphasizing the most important  
187 results) and conclusions, and utility of results explaining how, when, where, and by whom data  
188 or interpretations can be applied to address the importance of the results within the context of the

189 scientific community. The abstract should include only research findings derived directly from  
190 the study.

### 191 **Key Words**

192 Key words follow the abstract. Authors should type the phrase “**KEY WORDS**” in bold  
193 font and left-justified followed by a single regular space and list ≤8 words in alphabetical order  
194 ending with a period. Words from the title should be included as well as others that identify  
195 common and scientific names of principal organisms in the manuscript, the geographic area of  
196 study (typically states, provinces, or well known regions), well known phenomena and concepts  
197 studies (i.e., carbon sequestration, competition, mortality, nutrient cycling, population  
198 estimation, primary succession, radiotelemetry, reproduction, survival, zooplankton, etc.) and  
199 other potentially useful words not previously mentioned for indexing (i.e., **KEY WORDS**  
200 author, format, instructions, manuscript, policy, style, submission guidelines).

### 201 **Text Pages**

202 Page numbers and the RH (i.e., Unsworth et al.: Elk Sightability Validation) should be  
203 inserted in the upper right margin on all pages following the title page using the Header function  
204 in Microsoft Word. These notations facilitate manuscript continuity during review, editing, and  
205 typesetting. Authors should number each line of the text continuously (i.e., do not renumber  
206 each page) using the Line Numbers function (Layout tab) in the Page Setup options.

### 207 **Manuscript Headings**

208 Manuscripts should be prepared using 3 heading types; first-level headings, second-level  
209 headings, and third-level headings. First-level headings are capitalized, bold type, and  
210 left-justified. Text follows on the succeeding line and is indented 5 spaces. Second-level  
211 headings are bold type, left-justified with sentence-case lettering (i.e., important words

212 capitalized). Text follows on the succeeding line and is indented 5 spaces. Third-level headings  
213 are italicized, indented 5 spaces, and followed by a period and em dash. Text follows directly  
214 after the subheading on the same line. For instance, *Seasonal Home Range Analyses*.—Begin  
215 paragraph text here. Third-level headings should only be used for short ( $\leq 2$  paragraphs)  
216 subsections. Authors should use first-level headings for appendix titles.

### 217 **Major Manuscript Sections**

218         The introduction (no heading and indented 5 spaces) starts two lines below the Key  
219 Words and should contain a concise synthesis of current and historical literature specific to the  
220 manuscript's main topic (i.e., setting the stage). This section should serve to justify why the  
221 research was necessary and subsequently conducted. The initial paragraphs should provide a  
222 clear, referenced, logical progression to the primary objectives of the research project. The latter  
223 part of this section should clearly and succinctly state the study objectives and the hypotheses  
224 tested, which concludes this section.

225         Research articles must include the following first-level headings: Abstract, Key Words,  
226 Study Area, Methods, Results, Discussion, Management Implications, Acknowledgments, and  
227 Literature Cited. Combining Study Area and Methods or Results and Discussion sections are not  
228 permitted in Research articles. Research notes do not include Abstract, Key Words, Study Area,  
229 Methods, Results, Discussion, Management Implications, or Acknowledgments first-level  
230 headings. Research notes include only a Literature Cited first-level heading. Second- and  
231 third-level subheadings are not permitted in Research notes.

232         Study area descriptions should be presented in past tense (i.e., average annual snowfall  
233 was 101 cm, rangelands were characterized by mid-season grasses and limited stands of  
234 ponderosa pine). Exceptions include geological formations that have been present for centuries

235 or millennia (e.g., mountain ranges). Methods should be concise and include study duration,  
236 sampling protocols, dates, research or experimental design, and data analyses. Methods should  
237 be written in active voice (i.e., write “We radiocollared adult female deer...” and “We compared  
238 AIC values to select the most parsimonious model” rather than “Adult female deer were  
239 radiocollared” or “AIC values were compared to select the most parsimonious model”; see Style  
240 and Usage section below). Authors should cite previously published methods with minimal  
241 explanation and explain new or modified methods in detail. Animal-welfare protocols should be  
242 included at the end of the Methods section rather than in the Acknowledgments section; protocol  
243 (i.e., IACUC) numbers should be included parenthetically following the statement.

244         Results should be presented in a clear, concise, and organized manner. Avoid  
245 redundancy by presenting information in tables and figures in the text and do not explain  
246 analyses that are more appropriately described in the Method section. Authors should describe  
247 the magnitude and direction of biological effects as well as test statistics. For instance, reporting  
248 that “parameter X was 50% smaller than parameter Y ( $P < 0.015$ )” conveys more biologically  
249 meaningful information than stating that “parameter X was significantly smaller than parameter  
250 Y.” Avoid overusing the terms “significant” and “significantly” when statistical differences can  
251 be deduced from test statistics (i.e.,  $P$ -values); such reporting commonly results in unnecessary  
252 length and redundancy when stating results. Authors should avoid the urge to discuss or  
253 interpret results as this activity unnecessarily increases the length of this section and commonly  
254 results in redundancy or a “re-discussion” of results in the Discussion section of the paper  
255 (Brown and Jenks 2009). Results should follow the order of testing of hypotheses and design set  
256 forth in the Materials and Methods section. Organization should be arranged for impact, with

257 results listed from most to least significant (Brown and Jenks 2009). Additionally, results should  
258 be presented in past tense (i.e., mean spring migration occurred on 14 April).

259         The Discussion should follow the logical order of presentation of results from the  
260 previous section while highlighting the most important or significant findings of the study. This  
261 section provides an opportunity for interpreting data and making literature comparisons. Begin  
262 the Discussion by synthesizing results with regard to study objectives and then relate relevant  
263 findings to previously published literature and research. Authors should provide synthesis of  
264 results with available literature and should avoid simply restating results. Systematic discussion  
265 of every aspect of the study leads to unnecessarily long manuscripts. Authors should be concise  
266 and relate their findings directly to their study objectives and hypotheses. Do not repeat results  
267 in this section and discuss only the most relevant and important results. Reasonable speculation  
268 and new hypotheses or scientific questions that are logical extensions of findings and  
269 conclusions may be included in the Discussion.

270         The Management Implications section should be short (generally about 1 paragraph),  
271 direct, and explain important management and conservation issues that are derived directly from  
272 your results. Authors should avoid restating information from the Results or Discussion sections  
273 and making recommendations beyond the scope of their study. Specific management  
274 recommendations should be addressed in this section.

275         The Acknowledgments (please note our preferred spelling) section appears immediately  
276 before the Literature Cited. This section should be brief and include initials (rather than first  
277 names) of individuals cited. For example, “Funding was provided by Federal Aid in Wildlife  
278 Restoration administered by South Dakota Department of Game, Fish and Parks, Study No.  
279 75103, the National Park Service administered through the South Dakota Cooperative Fish and

280 Wildlife Research Unit at South Dakota State University, the Pope and Young Club, Safari Club  
281 International, and South Dakota State University. We thank R. G. Barden, J. M. Chronert, J. E.  
282 Ellingson, L. L. Flack, R. N. Pelky, S. A. Rauch, J. L. Wilkens, and T. J. Zimmerman for their  
283 assistance during our study. We also thank South Dakota Civil Air Patrol for their assistance and  
284 the landowners that allowed access to their property throughout our study.”

### 285 **Literature Cited**

286 Authors should refer to Appendix B for detailed instructions on how to format citations.  
287 Additionally, authors should maintain double-spacing and use hanging indents rather (than white  
288 space) to delineate new citations. Within the manuscript body, citations should be presented in  
289 chronological order and then alphabetical order. All author names should be spelled out in case  
290 lettering rather than using dashes. Within the Literature Cited section, citations should be  
291 presented in alphabetic order rather than in chronologic order. Authors should type “*Associate*  
292 *Editor*” at the end of the Literature Cited section. The name of the Associate Editor will be filled  
293 in by the Editor at a later date.

### 294 **Figure Legends and Tables**

295 On a new (separate) page following the Literature Cited, figure captions should be  
296 compiled. Figures can be submitted either as separate files or embedded in the manuscript  
297 following the figure captions page. Please note that as of 1 January 2009, we only accept figures  
298 in the following formats: .doc, .tif, .jpeg, .pdf, .eps, .xls, and .ppt. Labeling and mounting figure  
299 parts (i.e., Figure 1a, Figure 1b) together into a single figure as it is intended to appear in print is  
300 necessary; failure to do so may result in additional charges during typesetting.

### 301 **Appendices**

302 Authors should include appendices in the text file after all tables, figure captions, and  
303 figures. First-level headings should be used for Appendix titles.

#### 304 **STYLE AND USAGE**

305 The Editor may return a poorly written (i.e., long and complex sentences, superfluous  
306 words [Appendix C]), disorganized manuscript or one that does not follow publishing instruction  
307 to authors without review, despite the paper potentially containing publishable data. While most  
308 journal editors are willing to offer helpful suggestions to authors, reviewers may be less patient  
309 or tolerant of poor writing style, subsequently resulting in unfavorable reviews. Thus, the *PNAT*  
310 editorial staff recommends that authors review chapters 3 and 4 in the “CBE Style Manual (CBE  
311 Style Manual Committee 1994) and “Writing with Precision, Clarity, and Economy” (Mack  
312 1986). Authors are encouraged to write directly and concisely while minimizing repetition  
313 between manuscript sections and use of 1-sentence paragraphs. Authors are strongly encouraged  
314 to subject their manuscripts to “friendly” critical review by colleagues prior to submission for  
315 publication; many common problems are corrected during this part of the peer-review process.  
316 Additional problems can be avoided by following previously prepared outlines that serve to  
317 guide authors through manuscript writing. Authors should refer to Strunk and White (1979),  
318 Day (1983), and Batzli (1986) for other helpful writing suggestions. A common error in  
319 manuscript writing style is use of passive voice. Use of first person and active voice throughout  
320 the manuscript is recommended to minimize repetitive or unclear wording. For instance, instead  
321 of writing “deer home ranges were estimated” authors should write “we estimated deer home  
322 ranges.” Review of commonly misused words (Appendix C) before manuscript preparation is  
323 encouraged.

324 Authors should avoid using hanging hyphens at the right margin and right-justified text.  
325 Page margins should be set at 2.5 cm (1 inch) on all sides of the page. Additionally, avoid  
326 violating margin boundaries simply to begin a new paragraph or to place the Literature Cited at  
327 the top of a new page. Avoid underlining, italicizing, or boldface words in the text to indicate  
328 emphasis and type scientific names in italic font and Latin phrases in plain text (i.e., *ad hoc*, *a*  
329 *posteriori*).

### 330 **Abbreviations and Acronyms**

331 All abbreviations or acronyms must be defined the first time they are used in the abstract  
332 and text (i.e., Geographic Information System [GIS], Global Positioning System [GPS]).  
333 Acronyms that were first defined in the abstract should subsequently be redefined in the text.  
334 Sentences starting with acronyms should be avoided and do not use an apostrophe with plural  
335 acronyms (i.e., MANOVAs, PCAs). Exceptions include the following list of abbreviations,  
336 which may be used in the text without definition: metric units, DNA, USPS abbreviations, and  
337 various measurement units (see Appendix C). Do not abbreviate journal titles in the Literature  
338 Cited section. Do not abbreviate book titles (including conference proceedings published as a  
339 book), names of publishers, or university names when citing theses or dissertations. Units of  
340 measure, when used with a number, are abbreviated but no period is used. Longer time periods  
341 are not considered measurements and are not abbreviated (i.e., 2.7 mm, 3 g, 18 km, but three  
342 months, six weeks, two years). Do not abbreviate the words “river,” “county,” following the  
343 name, or units of measure that follow a spelled-out number at the beginning of a sentence (i.e.,  
344 Ten milligrams is a lethal dose). Additionally, descriptive modifiers that are used in the text  
345 (i.e., the study area was located 17 km northeast [not NE] of Buffalo) are not abbreviated nor are  
346 names of states, provinces, and book publishers (in Literature Cited).

**347 Citing Equipment and Statistical Software**

348 For all field equipment, authors should include the manufacturer name and location  
349 parenthetically at the first mention (of the equipment) in the text. However, manufacturer  
350 information and location should not be included for GIS and GPS. Statistical software should  
351 only be included in the Literature Cited if authors are referencing the software operations  
352 manual. Otherwise, manufacturer information (manufacturer, city, state and country of  
353 manufacturer) should be included immediately following the first mention of the statistical  
354 software (product) name. In cases where the programs are only available online, authors should  
355 include website access information in literature citations (see Appendix B).

**356 Citing Literature in Text**

357 With few exceptions, citations should be referenced parenthetically at the end of a  
358 sentence; i.e., Dispersal is defined as the movement of an animal from its natal range to its first  
359 or subsequent breeding range, or where it would have bred had it survived and found a mate  
360 (Shields 1987). Literature should be cited by author and year; i.e., Burnham (1980), Burnham  
361 and Anderson (1998). Use “et al.” for publications with  $\geq 3$  authors; i.e., Burnham et al. (2000).  
362 Commas should only be used to separate a series of citations, and not to separate an author and  
363 publication date. Citations in a series should be cited chronologically (i.e., Martinka 1967, West  
364 1970, Beale and Smith 1973, Barrett 1982). Contributing authors should not list  $>5$  citations in  
365 the text body to reference a particular ecological issue or scientific finding. If citations in a  
366 series have  $>1$  reference for the same author(s) in the same year, then years should be designated  
367 alphabetically (in italics) and separated with commas (i.e., Bowyer 1990*a*, 1990*b*, Jones 1995,  
368 Smith 1996, 1997). Multiple within-year citations should be alphabetized within chronological  
369 order; i.e., Anderson 1998, Johnson 1998, Jones 1998, Smith 1998, White 1998. All widely

370 distributed articles catalogued in major libraries, including theses, dissertations, symposia  
371 proceedings, and United States Government documents, should be cited as published literature.  
372 However, such references should be cited as unpublished literature if they are not easily  
373 accessible or available. All other documents should be cited as unpublished data in the body of  
374 the text.

### 375 **Citing Unpublished Sources in Text**

376       References that are not easily accessible, available, or locally distributed should be cited  
377 only in the body of the text. This includes unpublished reports, manuscripts that have not yet  
378 been accepted for publication, and personal communications or observations. Unpublished  
379 materials are not as credible as published literature so should not be overused. Unpublished  
380 information should be cited in the text body as follows: Personal communications; i.e., (H. C.  
381 Frost, National Park Service, personal communication), Unpublished data (including manuscripts  
382 in review); i.e., (R. J. Guenzel, Wyoming Game and Fish Department, unpublished data),  
383 Unpublished report; i.e., (R. E. Rolley, Wisconsin Department of Natural Resources,  
384 unpublished report). Affiliations should be included in the first citation, even when citing  
385 unpublished data or personal communication of an author. Inclusion of affiliation should be  
386 avoided in subsequent citation references (i.e., H. C. Frost, personal communication).  
387 Manuscripts accepted for publication are cited as a published manuscript in the text using the  
388 anticipated year of publication. Subsequent citation of such manuscripts in the Literature Cited  
389 section should show the year of publication after author(s) name(s) and “in press” following the  
390 journal volume number. Manuscripts that are in review should not be cited as “in press;” authors  
391 should cite such manuscripts using the unpublished style mentioned previously.

### 392 **Common and Scientific Names (Nomenclature)**

393           If a species has a universally accepted common name, use both the scientific and  
394 common names at first mention of the species, both in the abstract and in the text body. Place  
395 scientific names following common names in parentheses and italic font with the first letter of  
396 the genus name capitalized and the species name spelled out in lower-case letters (Chamberlain  
397 and Johnson 2007). Thereafter, use only the common name. Authors should provide literature  
398 citations for all common nomenclature reported (i.e., *Artemisia tridentata* [big sagebrush];  
399 Larson and Johnson 1999). If a species has no universally accepted common name, refer to it by  
400 scientific name. In cases where only the scientific name is used, authors should provide  
401 additional information on what the organism is for the benefit of readers who may be unfamiliar  
402 with that taxon. Do not capitalize common names, except for proper names or adjectives that are  
403 part of the name (i.e., Cooper’s hawk). After the first use of the scientific name, abbreviate the  
404 Genus name by using the first initial (i.e., *A. americana*). However, when two genera with the  
405 same first initial have been included within a few paragraphs, spell out genus names to avoid  
406 confusion, and always spell out genus names when beginning a sentence. Italicize genus and  
407 species names but not higher taxa. Use of scientific names in manuscript titles should be  
408 avoided, except when there is no accepted common name. Do not use subspecies names unless  
409 essential, and omit taxonomic author names. Use “sp.” (singular; not italicized) or “spp.”  
410 (plural; not italicized) to indicate that the identity of a species within a genus was unknown. For  
411 instance, “Riparian corridors were bordered by willow (*Salix* sp.) and we captured several  
412 species of mice (*Peromyscus* spp.)” Where disagreement occurs, use the most widely accepted  
413 nomenclature. Omit scientific names of domesticated animals or cultivated plants unless a plant  
414 is endemic or is not adequately described by its common name.

#### 415 **Mathematics and Statistics**

416 Roman letters used as symbols for quantities (i.e.,  $n$ ,  $\bar{X}$ ,  $P$ ,  $F$ ,  $t$ ,  $Z$ ,  $X$ ; Appendix C) are  
417 displayed using italic font. Underlining or italicizing numbers, Greek letters (i.e., chi-square,  
418  $\chi^2$ ), or various statistical terms (i.e., E, exp, lim, ln, log, SD, SE, CV, df) are not permitted.  
419 Degrees of freedom should be reported as subscripts to associated test statistics. Symbols from  
420 your word processing program's symbol directory should be used to create symbols rather than  
421 creating them using keyboard functions (i.e.,  $\chi^2$  rather than  $X^2$ , minus sign [-] from symbol menu  
422 rather than keyboard hyphen; times [×] to indicate multiplication instead of using lowercase "x"  
423 or asterisk [\*]). Authors should use bold font for characters that should be set in boldface type,  
424 insert spaces on both sides of symbols used as conjunctions (i.e.,  $P > 0.012$ ), and close spaces  
425 when symbols are used as adjectives (i.e.,  $>25$  radiotelemetry locations). Subscripts should  
426 precede superscripts ( $X_i^2$ ) unless subscripts include  $>3$  characters. Whenever possible, report  
427 exact probabilities ( $P = 0.028$ , not  $P < 0.05$ ) and for general guidance, follow Swanson (1974) or  
428 the CBE Style Manual Committee (1994:206–218). For advice on presenting mathematics or  
429 statistics, follow MacInnes (1978). Additionally, authors are encouraged to refer to Tacha et al.  
430 (1982) and Wang (1986) for information regarding other common statistical errors. Statistical  
431 programs or analytical methods should be typed in capital letters (i.e., PROC NONLIN, Program  
432 MARK). Authors should avoid redundant use of "significantly" (i.e., "Direct and post-release  
433 mortality rates were higher ( $P = 0.020$ ) in pronghorn than white-tailed deer"). Statistical tests or  
434 measures of central tendency should be reported as in the following examples: ( $\chi^2_1 \geq 5.40$ ,  
435  $P \leq 0.020$ ), ( $F_{1,294} = 125.28$ ,  $P \leq 0.001$ ), or ( $\bar{X} = 4.36$  km,  $SE = 0.32$ ,  $n = 88$ ). Again, authors  
436 should note degrees of freedom are subscripted with associated test statistics. Similarly,  
437  $P$ -values less than 0.001 should be displayed as  $P \leq 0.001$ .

#### 438 **Units of Measure**

439 Whenever possible, authors should use Systeme Internationale d'Unites (SI) units and  
440 symbols (refer to Appendix C). Place a space between numbers and units or symbols (i.e.,  
441 100 km, 50° C) and do not use hyphens between numbers and units unless using a number-unit  
442 phrase to modify a noun (i.e., 5-yr study, 100 cm in diam, 30 mm wide). Use English units in  
443 parentheses following converted metric units only in cases where precision of original  
444 measurements or accurate interpretation of results may be misrepresented or otherwise  
445 compromised. However, the following non-SI units are permitted: hectare (ha), calorie (cal),  
446 Celcius (C), minute (min), hour (hr), seconds (sec), and liter (L).

#### 447 **Numbers and Unit Names**

448 Use of the metric system is preferred, unless original measurements were nonmetric, in  
449 which case units should not be converted because precision may be misrepresented. In general,  
450 spell out numerals one through nine and use numerals for 10 and above. Spell out numerals and  
451 any associated units of measure to begin a sentence and except in key words, use numerals for all  
452 ordinals (i.e., 1<sup>st</sup>, 6<sup>th</sup>, 15<sup>th</sup>). Spell out ordinals that appear before a numeral (i.e., first 10  
453 pronghorn) and in Literature Cited, but use digits for cases such as 5-fold and 1-way. Fractions  
454 should be converted to decimals except in cases where precision is misrepresented. Numerals  
455 also are spelled out when used as a pronoun (i.e., at least twelve deer initiated migratory  
456 movements between summer and winter home ranges), or in a nonspecific sense (i.e., “an  
457 example or two of interference competition include...” or “on the one hand”). Units of measure  
458 should be indicated following each item (i.e., mean winter temperatures ranged from -10 to  
459 10° C) and use symbols or abbreviations (km and %) for measurement units that follow numbers  
460 unless numbers are indefinite (hundreds of km), is “0” (zero) or “1” (one) standing alone.

461           Insert commas in numbers  $\geq 1,000$  except when reporting book pages, clock time, or  
462 calendar year dates. Do not insert commas or hyphens between consecutive, independent  
463 numbers in a phrase (i.e., 30 1-yr-old males). Always use a leading zero when reporting  
464 decimals (i.e., use 0.001, not .001) and use lowercase when identifying items by name (i.e., study  
465 site 1, year 2, individual 3). Use numerals for expressing a decimal quantity (i.e., 0.5 kg, 3.7 km)  
466 and when expressing a range of numbers (i.e., litter sizes average 5 to 7 young). When using the  
467 word “from” to express a range, the word “to” also should be used (i.e., distance varied from 5 to  
468 16 km). In a series where some parts contain numerals greater than 10 and some parts contain  
469 numerals less than 10 (i.e., one through nine), use numerals for the entire series (i.e., species  
470 composition consisted of 5 common grackles, 8 blue jays, 10 black-capped chickadees, and 15  
471 white-breasted nuthatches). Large numerals or decimals should be avoided at the beginning of  
472 sentences.

### 473 **Hyphens and Compound Words**

474           In general, compound words used as adjectives should be hyphenated (i.e., 300-km<sup>2</sup> study  
475 area and 4-yr-old female) but not those used as predicate adjectives (i.e., study sites were 300  
476 km<sup>2</sup>, females were 3 years old). Compounds consisting solely of verbs are hyphenated. A  
477 sentence containing a participle or an adjective is hyphenated when it precedes the word it  
478 modifies (i.e., fine-grained soils, well-known ecological concept) but is not hyphenated when it  
479 follows the word it modifies (i.e., the ecological concept is well known). Hyphens should be  
480 retained if words that follow are capitalized, is an all-caps abbreviation, or is a numeral. Run  
481 together the following prefixes with the word for the following: ante, bi co, contra, counter, de  
482 extra, infra, intra, micro, mid, neo, non, over, pre, post, pro, pseudo, re, semi, sub, super, supra,  
483 trans, tri, ultra, un, under. Double vowels or triple consonants with these prefixes are not

484 permitted; hyphenate these cases. A two-word modifier containing an adverb ending in -ly is  
485 not hyphenated (i.e., a carefully preserved specimen). Compound modifiers containing numerals  
486 are hyphenated (i.e., a two-thirds majority, a 100-ha pasture). Compounds derived from two or  
487 more nouns are written open with no hyphen.

#### 488 **Punctuation**

489         Commas should be used after the next-to-last item in a series of >2 items (i.e., forested,  
490 wetland, and grassland habitats). However, commas should not be used to separate compound  
491 sentences before the conjunction (i.e., “We conducted nocturnal searches of white-tailed deer  
492 neonates using spotlights and diurnal searches of likely fawning habitats on foot,” not “We  
493 conducted nocturnal searches of white-tailed deer neonates using spotlights, and diurnal searches  
494 of likely fawning habitats on foot.”). Authors should not hyphenate prefixes, suffixes, or  
495 combining forms unless doing so is necessary to avoid confusion. Closed quotation marks are  
496 always placed after periods and commas, but may be placed prior to or after other punctuation  
497 (CBE Style Manual Committee 1994:177–181). Brackets should always appear in pairs and  
498 slashes (/) should not be used to indicate “and” or “or” or to express a range of numerical values;  
499 use only to indicate “per” or “divided by.” Ambiguous use of nouns as modifiers (i.e., ungulate  
500 researchers, male hunters) should be avoided. Authors should use trademarks (i.e., ®, ™, ©) at  
501 first mention of product names and not thereafter (re-establish information in text body if first  
502 introduced in abstract). Additionally, manufacturer information (see Citing Equipment and  
503 Statistical Software section above) should be provided following the first mention of a product  
504 name.

#### 505 **Securing Appropriate Approvals**

506 It is important that researchers and managers ensure their research activities are  
507 conducted in a manner that considers both the welfare of the animals they are studying (i.e.,  
508 equipping with radiocollars, implanting vaginal implant transmitters) or the rights of human  
509 subjects (i.e., participation in surveys). Consequently, it is imperative that all peer-reviewed  
510 manuscripts submitted for publication in *PNAT* address these concerns. Relevant documentation  
511 should be provided in the Methods section. Specifically, information indicating that proper  
512 animal care and use was applied during study of live vertebrate animals for research must be  
513 provided. Institutional Animal Care and Use Approval numbers (as designated by most U.S.  
514 colleges and universities), permit or license numbers issued to hold animals, or an equivalent  
515 number all provide acceptable means of documentation. All vertebrate animals, including  
516 mammals, birds, fish, reptiles, and amphibians are covered by this policy. Additionally,  
517 appropriate documentation that proper approval was obtained to perform research involving  
518 human subjects (primarily surveys) must be provided. Human Subject Protocol numbers (as  
519 required and designated by most federal agencies and U.S. colleges and universities) is an  
520 acceptable form of documentation.

## 521 **Times and Dates**

522 Use the 24-hour system (i.e., 0001 hours through 2400 hours) and report dates as day,  
523 month, and year without punctuation (i.e., 16 April 2009). Spell out months in full except in  
524 parentheses, table bodies, and figures, in which 3-letter abbreviations are permitted and are used  
525 with no period (i.e., 16 Apr 2009). Do not use apostrophes for plural dates (i.e., 1990s).

## 526 **TABLES AND FIGURES**

527 Authors are encouraged to record information in tabular form but must avoid  
528 incorporation of data of little relevance to readers. Both tables and figures must be referenced in

529 the text. Illustrations that do not relate significantly to the text will be deleted. Tables and  
530 figures should be imported into the document (if in Word format) or saved as an image file  
531 (please recall that we only accept .doc, .tif, .jpg, .eps, .xls, and .ppt formats). Further, tables,  
532 table legends and figure legends should be double spaced. Lettering must be large enough for  
533 readability after the figure is reduced to fit the printed page. Scale should be indicated. No part  
534 of the figure should be typewritten. Figure captions (i.e., Figure 1. Mean seasonal home range  
535 size for adult female pronghorns (*Antilocapra americana*) in Harding and Fall River counties,  
536 South Dakota, February 2002–August 2005. Harding County 95 and 50% summer and winter  
537 home range estimates were calculated using radio telemetry data obtained from 39 and 35  
538 individual pronghorns, respectively. Similarly, Fall River County 95 and 50% summer and  
539 winter home range estimates were calculated from telemetry data obtained from 28 and 27  
540 individual pronghorns, respectively) and table captions (i.e., Table 1. Seasonal movements by  
541 Rocky-mountain elk in western Colorado, 1998–2001) are written as titles, not as complete  
542 sentences. Avoid adding other information here; to the greatest extent possible, all information  
543 should be in the table or footnotes to the table, or included in figures.

544 Tables and figures should stand alone (i.e., self-explanatory) and avoid reference to text.  
545 With the exception of those items included in Table 1, authors should define relevant  
546 abbreviations and acronyms in each table and figure. All table and figure captions should  
547 include the species being studied as well as when and where (study area location) empirical data  
548 were collected. Authors should avoid using test-statistics in table and figure captions. Tables  
549 should be presented immediately following the end of the Literature Cited. Combine and list all  
550 figure captions, double-spaced on a separate page immediately following the Tables rather than  
551 on the figures themselves. Figure files should be included immediately following the list of

552 figure captions. Figure files can be submitted either as a single file that includes all of the  
553 figures or as separate figure files.

#### 554 **Tables**

555 Tables should only be prepared for data sets with a large amount of significant data. In  
556 contrast, do not prepare tables for investigations with limited data sets, those with numerous  
557 zeros or empty (blank) spaces, or repetitions of the same number; such data should be presented  
558 in the text body (Chamberlain and Johnson 2007). Tabular data are typically read vertically, not  
559 horizontally. Though table titles vary between journals, the following sequence is  
560 recommended: 1) name of biological characteristic or experimental unit(s) measured, 2)  
561 measurement unit(s) in parentheses, 3) common name of organism measured, and 4) study  
562 location and date (Chamberlain and Johnson 2007). Test statistics or statements of results ( $\chi^2$  or  
563 *P*-values) are not permitted in table titles. Further, avoid table titles that begin with superfluous  
564 words (i.e., The..., A comparison between..., A summary of....) and words that should be  
565 abbreviated or presented as symbols or parenthetically (Chamberlain and Johnson 2007).

566 Lines appearing in tables are referred to as rules. Table rules should be used according to  
567 the following guidelines: 1) Do not draw any rules vertically within a table, 2) Include at least 3  
568 rules in each table—below the title, below the column headings, and at the bottom of the table;  
569 rules are inserted as single, continuous lines and do not appear bold or extra-thick, 3) Use rules  
570 that straddle subheadings within column headings, 4) Do not use rules to show summation; use  
571 “Total” in row headings, and 5) Use straddle rules in column headings to join related columns  
572 and reduce word use; label columns to avoid unnecessary print in data fields (Chamberlain and  
573 Johnson 2007). Avoid using column and row headings in data fields and type main headings  
574 flush left with subheadings indented. Do not use bold font for column and row headings, but

575 capitalize first word and proper pronouns. Avoid using dashes in data fields to depict no  
576 information; data fields for which no information was collected should contain blank cells.  
577 Authors should refer to Tables 2–4 for examples of properly formatted tables accompanying  
578 manuscripts submitted to *The Prairie Naturalist*. Additionally, authors should pay particular  
579 attention to consistent use of significant digits in all numbers reported, particularly when  
580 reporting percentages (Chamberlain and Johnson 2007). For cases where significant variation  
581 between significant digits exists within a data column, present the precision level for each datum.  
582 Authors should report *P*-values out to 3 digits past the decimal. Do not report  $P = 0.000$ ; the  
583 correct format is  $P \leq 0.001$ ; naked decimals in data fields are not permitted (i.e., report 0.001, not  
584 .001). For footnote superscripts use asterisks for probability levels and lower-case, non-  
585 italicized Roman letters for additional footnotes. Lettered footnotes should first be placed in the  
586 title, then left-to-right, and then down. It is the author's responsibility that all footnotes used in  
587 the title and within the table corresponds accordingly with the indented explanation immediately  
588 below the table. Footnotes requiring more than one sentence are left-justified and footnotes  
589 should be used to reduce unnecessary detail in the title and within the table body (Chamberlain  
590 and Johnson 2007). Please note that the most common errors in tables are single spacing,  
591 incomplete titles, naked decimal points, and unnecessary characters in data fields (Chamberlain  
592 and Johnson 2007).

### 593 **Figures**

594 Features of good figures include: 1) dark, clear lettering, 2) clear, distinct lines and sharp  
595 focus in the most important parts of the image, 3) study area location clearly depicted, 4) easily  
596 distinguishable symbols, 5) high tonal contrast, and 6) clearly depicted reference scale if size is  
597 important. Most figures are either line (i.e., computer) drawings or pictures. Figure captions

598 should begin on a new page immediately following the Literature Cited. If possible, figures  
599 should not exceed 15 × 23 cm; reducing figures to these approximate dimensions will ensure that  
600 lettering remains readable during the final production stage of *PNAT* publications. It is  
601 acceptable for Figure captions to be longer than table titles; captions may include several  
602 sentences with recommendations for interpreting figure content. Figure captions should stand  
603 alone and enable figures to be self-explanatory, clearly describing variables and when and where  
604 empirical data were collected. Figure captions do not include statistical results and figure labels  
605 (i.e., Figure 1, Figure 2, Figure 3) should be typed on the page containing the figure. Figure  
606 lettering should follow the same guidelines as manuscript text. Only capitalize the first word and  
607 proper nouns on axis labels and figure legends or keys. Italic letters should only be used where  
608 they are essential to the meaning (i.e., such as reporting mathematics and statistics). For  
609 additional guidance regarding preparation of figures, authors are encouraged to refer to Allen  
610 (1977) and Day (1983), and the CBE Style Manual Committee (1994).

## 611 **ACKNOWLEDGMENTS**

612         These guidelines have been assembled from previous versions of *The Prairie Naturalist*  
613 and the current version of *Journal of Wildlife Management* guidelines. We respectfully  
614 acknowledge the efforts of previous authors who simplified this effort. We also thank past,  
615 present, and future reviewers, Assistant Editors, Associate Editors, Editors, and Great Plains  
616 Natural Science Society Presidents for their commitment to *The Prairie Naturalist*. Current  
617 serving Associate Editors provided helpful comments on a previous draft of these guidelines.

## 618 **LITERATURE CITED**

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648 Wang, D. 1986. Use of statistics in ecology. Bulletin of the Ecological Society of America  
649 67:10–12.

650 *Note:* Citations used in guideline text as examples are not included in the Literature Cited  
651 section above.

652 Immediately following the Literature Cited section authors should type the following in italics:

653 *Associate Editor:*

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666 Table 1. Common expressions with superfluous words

667	Superfluous wording <sup>a</sup>	Suggested substitute
668	the purpose of this study was to test the hypothesis	I (or we) hypothesized
669	in this study we assessed	we assessed
670	we demonstrated that there was a direct	we demonstrated direct
671	were responsible for	caused
672	played the role of	were
673	on the basis of evidence available to date	consequently
674	in order to provide a basis for comparing	to compare
675	as a result of	through, by
676	for the following reasons	because
677	during the course of this experiment	during the experiment
678	during the process of	during
679	during periods when	when
680	for the duration of the study	during the study
681	the nature of	(eliminate by rearrangement)
682	a large (or small or limited) number of	many (or few)
683	conspicuous numbers of	many
684	substantial quantities	much
685	a majority	most
686	a single	one
687	an individual taxon	a taxon
688	seedlings, irrespective of species	all seedlings

689 Table 1. Continued.

690	Superfluous wording <sup>a</sup>	Suggested substitute
691	all of the species	all species
692	various lines of evidence	evidence
693	they do not themselves possess	they lack
694	were still present	persisted, survived
695	the analysis presented in this paper	our analysis
696	indicating the presence of	indicating
697	despite the presence of	despite
698	checked for the presence of	checked for
699	in the absence of	without
700	a series of observations	observations
701	may be the mechanism responsible for	may have caused
702	it is reasonable to assume that where light	
703	is not limiting	with light not limiting
704	in a single period to a few hours	in a few hours
705	occur in areas of North America	are in North America
706	adjacent transects were separated by at least 20 m	≥20 m apart
707	in the vicinity	nearby
708	separated by a maximum distance of 10 m and	
709	a minimum distance of 3 m	3–10 m apart
710	the present-day population	the population
711	their subsequent fate	their fate

712 Table 1. Continued.

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713	Superfluous wording <sup>a</sup>	Suggested substitute
714	whether or not	whether
715	summer months	summer
716	are not uncommon	may be
717	due to the fact that	(eliminate by rearrangement)
718	showed a tendency toward higher survival	had higher survival
719	devastated with drought-induced dessication	killed by drought

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720 <sup>a</sup>Mack (1986:33). Reprinted with permission from the Ecological Society of America.

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734 Table 2. Format and style guidelines for tables accompanying manuscripts submitted to *The*  
 735 *Prairie Naturalist*.

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

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746 <sup>a</sup>Chamberlain and Johnson (2007:43). Reprinted with permission from the *Journal of Wildlife*  
 747 *Management*.

748 <sup>b</sup>Indent the first line of a footnote 2 spaces. The remaining lines are flush with the left margin  
 749 and double spaced.

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757 Table 3. Correctly formatted table accompanying manuscript submitted to *The Prairie*  
 758 *Naturalist*.

		Animal group			
		Avian		Mammalian	
Site <sup>a,b</sup>		Insectivorous	Carnivorous	Insectivorous	Carnivorous
Xeric		5.18	3.04	2.98	4.36
Mesic		7.76	5.52	1.63	3.09
Hydric		12.38	7.09	5.14	8.44

772 <sup>a</sup>Chamberlain and Johnson (2007:44). Reprinted with permission from the Journal of Wildlife  
 773 Management.

774 <sup>b</sup>For footnotes, use lower-case, Roman letters. Indent the first line of the footnote 2 spaces, and  
 775 left-justify all run-on lines. Use asterisks for probability levels.

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Table 4. Correctly formatted table in landscape orientation accompanying manuscript submitted to *The Prairie Naturalist*.

			Transported <sup>a</sup>				Not Transported <sup>b</sup>			
			No.	No.	No.	No.	No.	No.	No.	No.
Study			animals	DM	PRM	Total	animals	DM	PRM	Total
Area <sup>c</sup>	Winter	Species	captured	(%) <sup>d</sup>	(%) <sup>e</sup>	Mort (%) <sup>f</sup>	captured	(%)	(%)	Mort. (%)
HC	2001–02	Pronghorn	30	1 (3.3)	4 (13.3)	5 (16.7)	15	0	0	0
WCNP	2001–02	Pronghorn	11	1 (9.1)	2 (18.1)	3 (27.2)	0	0	0	0
FRC	2002–03	Pronghorn	40	1 (2.5)	6 (15.0)	7 (17.5)	0	0	0	0
ND	2003–04	Pronghorn	0	0	0	0	62	2 (3.3)	0	2 (3.3)
	2004–05	Pronghorn	0	0	0	0	55	3 (5.5)	0	3 (5.5)
	2005–06	Pronghorn	0	0	0	0	68	4 (5.9)	1 (1.5)	5 (7.4)
MN	2000–01	WT Deer	58	0	0	0	0	0	0	0
	2001–02	WT Deer	73	1 (1.4)	0	1 (1.4)	0	0	0	0
	2002–03	WT Deer	36	1 (2.8)	0	1 (2.8)	0	0	0	0
NCSD	2004–05	WT Deer	41	1 (2.4)	0	1 (2.4)	0	0	0	0

781 <sup>a</sup>Includes individuals that were hobbled and transported to processing sites.

782 <sup>b</sup>Includes individuals that were processed at capture sites.

783 <sup>c</sup>HC = Harding County, WCNP = Wind Cave National Park, FRC=Fall River County,

784 ND = North Dakota, MN = Minnesota, NCSD = North-central South Dakota.

785 <sup>d</sup>No. DM = Number of direct mortalities (i.e., head, neck, leg injuries) sustained during  
786 helicopter capture operations; percent mortality included in parentheses.

787 <sup>e</sup>No. PRM = number of post-release mortalities; percent mortality included in parentheses; post-  
788 release mortalities were defined as deaths that occurred within 26 days post-release.

789 <sup>f</sup>Total mortalities included direct mortalities + post-release mortalities. Percent mortality  
790 included in parentheses.

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804 **APPENDIX A. AN EXAMPLE OF A PROPERLY FORMATTED RESEARCH NOTE**  
805 **SUBMITTED FOR PUBLICATION IN *THE PRAIRIE NATURALIST***

806

807 **MORTALITY OF AN AMERICAN MARTEN FROM AN OFF-HIGHWAY**

808 **VEHICLE**— Cause-specific mortality in American marten (*Martes americana*) populations has  
809 been documented throughout North America (e.g., Maine [Hodgman et al. 1994, Hodgman et  
810 al. 1997], Ontario [Thompson 1994], Quebec [Potvin and Breton 1997], Oregon [Bull and Heater  
811 2001], and British Columbia [Poole et al. 2004]). Studies of trapped and untrapped populations  
812 have typically implicated predation as the leading cause of natural mortality (Hodgman et al.  
813 1994, Bull and Heater 2001, Poole et al. 2004). Coyotes (*Canis latrans*; Bull and Heater 2001,  
814 Hodgman et al. 1994, Hodgman et al. 1997), raptors (Thompson 1994, Hodgman et al. 1997,  
815 Bull and Heater 2001), red fox (*Vulpes vulpes*; Thompson 1994, Hodgman et al. 1994), fisher  
816 (*Martes pennanti*; Hodgman et al. 1997), and bobcat (*Lynx rufus*; Bull and Heater 2001) have  
817 been identified as predators of marten. Other known causes of natural mortality include  
818 intraspecific killing (Hodgman et al. 1994, Hodgman et al. 1997, Bull and Heater 2001), disease  
819 (Thompson 1994), and exposure (Bull and Heater 2001).

820         Studies of heavily exploited marten populations have shown that trapping may account  
821 for up to 90% of marten mortalities (Hodgman et al. 1994). Additionally, human-induced  
822 mortalities from trap-related injuries (i.e., traps targeting other furbearers; Potvin and Breton  
823 1997), shootings (Potvin and Breton 1997), and on-road vehicles (Potvin and Breton 1997) have  
824 been documented. However, there have been no published reports of marten killed from direct  
825 contact with Off-Highway Vehicles (OHV; i.e., all-terrain vehicles [ATV], off-road motorcycles  
826 or dirt bikes, snowmobiles, four-wheel drive vehicles).

827           While there are several reviews of the effects of OHVs and recreational activity on  
828 wildlife populations (Knight and Gutzwiller 1995, Joslin and Youmans 1999), most studies have  
829 focused on physiological (Creel et al. 2002) or behavioral (Van Dyke et al. 1986, Riley et al.  
830 2003) responses to disturbance; none have addressed the potential for direct mortality. In 2005,  
831 we documented the death of a juvenile, female American marten (F299) from an OHV that had  
832 been radiocollared during a study documenting the distribution and abundance of marten in the  
833 Black Hills, South Dakota (Smith 2007); the Institutional Animal Care and Use Committee at  
834 South Dakota State University approved all handling protocols (Approval Number 04-A030).

835           We relocated F299 16 times between the date of capture (3 August 2005) and the date she  
836 was discovered dead. We located the carcass on 9 September 2005 in a dry creek bed in the  
837 Northeast region of the Black Hills, South Dakota, approximately 1-km south of the nearest  
838 secondary road. The base of the creek contained numerous large rocks making it impassable via  
839 ATV. A visual inspection of the carcass indicated severe rub marks and patches of hair missing  
840 on the head, shoulders, back, and front legs. The bottom third of the animal was beneath a small  
841 rock (approximately half the size of the marten) and had been severely compressed dorso-  
842 ventrally, suggesting that the marten had been run over by a vehicle. An inspection of the head  
843 and upper torso showed no signs of puncture wounds or trauma typically associated with  
844 predation. Due to the nature of the wounds, the ruggedness of the terrain, and the fact that we  
845 were unable to gain access to the creek bed via ATV, we concluded that the animal was crushed  
846 by a large OHV. We noted potential den site locations within 2 meters of the death site. Based  
847 on the physical evidence at the death site, we are certain the animal was not killed by being  
848 directly under the rock. Although the exact circumstances leading to the mortality are unknown,  
849 it is possible that the animal was denned in the creek and consequently struck and killed while

850 attempting to escape the approaching OHV. The general area where the carcass was discovered  
851 is a popular destination for off-road enthusiasts, and, during the course of our study, we routinely  
852 witnessed OHV traffic in adjacent areas.

853 While probably not a significant source of mortality in marten populations, the potential  
854 for injury or death from OHV contact does exist. With an estimated 11 million visits to national  
855 forests nationwide (USDA Forest Service 2003), use of OHVs for recreational purposes is one of  
856 the fastest growing activities in the United States (Cordell et al. 2005). Thus, we believe OHV  
857 use should be considered when addressing long-term viability of marten populations, especially  
858 in sensitive areas, such as the Black Hills of South Dakota and Wyoming.

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861 Game, Fish and Parks. We thank Civil Air Patrol pilots L. Becht and G. Kirk for assistance with  
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865 [josh\\_f150@yahoo.com](mailto:josh_f150@yahoo.com))

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909 *Associate Editor:*

## 910 **APPENDIX B. LITERATURE CITED**

911 Type the Literature Cited immediately following the text, not necessarily beginning on a  
912 new page. Double-space Literature Cited and use hanging indents for second and subsequent  
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918 journal, its volume, and page numbers of the article. The first author is listed last name first,  
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926 name order only for the first author (i.e., Smith, A. B.); author initials should be listed first for  
927 subsequent authors (i.e., D. R. Anderson, K. P. Burnham). When citing more than one paper, put  
928 them in chronological order from oldest to youngest. If two or more papers by the same  
929 author(s) were published in the same year, distinguish them, both in the text and in Literature  
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932 are capitalized. Titles are not underlined or italicized. However, scientific names in a title are  
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934 period, the name of the publisher (spelled out), and the city, state, and country of publication, if  
935 not USA. For a book that is a second edition or subsequent edition, follow the title with a  
936 comma, then "second edition" or edition number as appropriate.

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938 as appropriate, name of university (spelled out), and city. Include the state, province, or country  
939 unless it is part of the name of the university. In citing a chapter or article in a book, the page  
940 numbers of the article are given, but not the number of pages in the book. Name(s) of editor(s),

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942 lines of citations should be indented ("hanging indent"). Please review the following examples  
943 for proper sequence and punctuation.

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1072 **APPENDIX C. MANDATORY ABBREVIATIONS FOR TABLES, FIGURES, AND**  
1073 **PARENTHETICAL EXPRESSIONS**

1074 Abbreviate the following terms in parentheses, tables, and figures only. Do not  
1075 abbreviate these terms in regular text and do not define terms listed in this table. However, all  
1076 additional abbreviations must be defined when first used in the text. Additional metric  
1077 abbreviations (identified with an asterisk) are not permitted.

1079	Term <sup>a</sup>	Abbreviation	Term	Abbreviation
1080		or symbol		or symbol
1081	Adult	ad	Logarithm, base e	ln or log <sub>e</sub>
1082	Amount	amt	Logarithm, base 10	log <sub>10</sub>
1083	Approximately	approx.	Male	M
1084	Calorie	cal*	Maximum	max.
1085	Celsius	C*	Meter <sup>b</sup>	m*
1086	Chi-square	$\chi^2$	Metric Ton	t
1087	Coefficient	coeff.	Minimum	min.
1088	Confidence interval	CI, $a \leq \bar{x} \leq a$	Minute	min
1089	Confidence limits	CL, $x \pm a$	Month names	Jan, Feb, etc.
1090	correlation, simple	<i>r</i>	More than/Greater than	>*
1091	Determination,			
1092	multiple	$R^2$	Multiple	<i>R</i>

1093	Determination,			
1094	Simple	$r^2$	Number (of items)	no.
1095	Degrees of freedom	df	Observed	obs
1096	Diameter	diam	Parts per billion	ppb*
1097	Diameter, breast			
1098	height	dbh	Parts per million	ppm*
1099	Directions	N, S, E, W, NE, NW, etc.	Percent	%*
1100	Equation(s)	eq(s)	Population size	$N$
1101	Expected	$E$	Probability <sup>c</sup>	$P$
1102	Female	$F$	Sample size	$n$
1103	$F$ ratio	$F$	Sample mean (of $x$ )	$\bar{x}$
1104	Gram	$g^*$	Spearman rank correlation	$r_s$
1105	Gravity	$g$	Standard deviation (s)	SD
1106	Hectare	ha*	Standard error (s)	SE
1107	Height	ht	Student's $t$	$t$
1108	Hotelling's $T^2$	$T^2$	Temperature	temp
1109	Hours(s)	hr	Trace <sup>d</sup>	tr
1110	Joule	J*	Variation	CV
1111	Juvenile	juv	Versus	vs.
1112	Kilocalorie	kcal*	Volt	V*
1113	Lethal concentration,			
1114	50%	LC <sub>50</sub>	Volume: liquid, book	vol, Vol.
1115	Lethal dose,			

1116	median	LD <sub>50</sub>	Weight	wt
1117	Less than	<*	Wilcoxon test	T
1118	Limit	lim	Year(s)	yr
1119	Liter	L*	Z-statistic	Z*

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1120

1121 <sup>a</sup>Chamberlain and Johnson (2007:55–56). Reprinted with permission from the Journal of  
 1122 Wildlife Management

1123 <sup>b</sup>All standard meter-based measurement units must be abbreviated in text when they appear after  
 1124 a number (i.e., mm, cm, km, etc.)

1125 <sup>c</sup>Use *P* to indicate a specific probability value (i.e.,  $P < 0.001$ ), but not more broad definitions in  
 1126 column-headings or axis labels (i.e., Probability that a juv survives first yr)

1127 <sup>d</sup>Define in a footnote (i.e.,  $tr = < 1\%$ .)

1128

1129