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10 **Guidelines for authors and reviewers of *Human–Wildlife Interactions* manuscripts¹**

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21 **Abstract:** This paper presents details on policies of *Human–Wildlife Interactions* (HWI) and
22 describes procedures for submitting, reviewing, and editing manuscripts. This document includes
23 guidelines for subject matter, manuscript categories, a description of the reviewing and editing
24 process, and details for format and style. Appendices are included for standard abbreviations.

25 **Key words:** format, guidelines, manuscript, policy, style

26 Publishing a professional paper proceeds most smoothly if authors understand the policy,
27 procedures, format, and style of the outlet to which they are submitting a manuscript. The
28 *Guidelines for authors and reviewers of Human–Wildlife Interactions manuscripts* draws heavily
29 from *Guidelines for authors and reviewers of Wildlife Society manuscripts* by Andrews and
30 Leopold (2000), many sections of which remain intact.

31
32 ¹These guidelines are typed in proper format for manuscripts submitted to *Human–Wildlife Interactions*,
33 with the exception of footnotes, which are not permitted in manuscripts.
34

35 **General policies**

36 **Submitting the manuscript**

37 Authors should submit their manuscript and submission information through the online
38 platform at <http://digitalcommons.usu.edu/hwi/>.

39 Without completion of the Submission Agreement, the editor will not initiate review of
40 the manuscript. The statement ensures that data and findings have not been published previously
41 or submitted elsewhere for simultaneous consideration. A paper is considered published if it (1)
42 appears in a serial publication abstracted by *Biological Abstracts* or a similar reference volume,
43 (2) appears in a book (including conference proceedings) printed in >500 copies and widely
44 distributed to libraries, or (3) has been published as part of a numbered series by an agency.
45 These guidelines for previous publication are flexible in certain instances, such as technical
46 analyses of findings published previously for lay audiences. Kendall (1981) elaborated on the
47 seriousness of dual publication; *HWI* editors subscribe to his standards.

48 If any portion of the manuscript has been published or reported elsewhere, submit a copy
49 of each report or publication with the manuscript submission. If the manuscript relates to but
50 does not duplicate other publications or manuscripts by the same author(s), submit a copy of
51 each to assist reviewers and editors in assessing the submitted manuscript.

52 Theses (M.S.) and dissertations (Ph.D.) do not constitute prior publication and need not
53 be mentioned in the cover letter, but they should be cited in the manuscript (see *Literature cited*
54 *style* below). Similarly, brief abstracts of talks given at meetings do not constitute prior
55 publication. Generally, unpublished reports required by sponsors and not distributed as part of a
56 numbered series (or in other ways that might result in accession by libraries) do not constitute
57 prior publication. Most symposia proceedings are considered publications; however, *HWI* editors

58 will decide to consider such manuscripts on a case-by-case basis. Authors should provide
59 information that bears on ethical and copyright considerations (CBE Style Manual Committee
60 1994:599–600) and other information that might facilitate review and editing.

61 **Page charges**

62 Page charges of \$100 per printed page are required. Authors must acknowledge
63 acceptance of responsibility for page charges should the manuscript be accepted for publication
64 by completing the Submission Agreement upon initial submission of the manuscript.

65 **Reviewing and editing**

66 Upon receipt of a submission, the editorial staff examines the manuscript to determine if
67 it is in proper style and format and if the subject matter is appropriate. If style and format are
68 seriously flawed, the paper will be returned for revision before being sent to referees. If subject
69 matter is inappropriate, the editor will return the paper to the author with an explanatory letter.

70 **Peer-reviewed manuscripts**

71 The editor assigns manuscripts that have been accepted for review to an associate editor
72 and 2 to 3 qualified referees to review the paper. The editor considers expertise, affiliation,
73 geographic location, date of last review, and performance on previous reviews when selecting
74 referees.

75 Referees are contacted prior to e-mailing manuscripts and asked to complete their review
76 within 3 weeks. If they are not able to review the manuscript in this period, an alternate reviewer
77 is selected. Despite these measures, it is sometimes necessary to replace delinquent reviewers. It
78 often takes >2 months before the managing editor receives a complete set of reviews.

79 Occasionally, the editor or associate editor judges that referees' comments reveal biases,
80 lack objectivity, are illogical, or otherwise lack merit. In such cases, the editor or associate editor

81 may proceed with revision despite negative comments from one or 2 referees. An alternative
82 opinion from a different referee also may be requested.

83 Manuscripts returned to authors for revision must be revised and returned to the associate
84 editor within a reasonable deadline set by the editor, or the manuscript will be withdrawn from
85 the review process, requiring resubmission for further consideration. Once a completed revision
86 is returned, the editor reviews it and either rejects it, returns it with a recommendation, or accepts
87 it for publication. Sometimes the revision process requires several iterations before the editor
88 makes a final decision.

89 **Acceptance and rejection policies**

90 Final acceptance of manuscripts is decided by the editor. The editor bears final
91 responsibility for the value and quality of materials that appear in *HWI* and makes decisions
92 accordingly. These decisions may differ from referees' comments seen by authors and
93 recommendations made by referees, including the associate editor. In rare instances, the editor's
94 decision to accept or reject a manuscript may not agree with the recommendation made by the
95 associate editor.

96 In rendering a decision, the editor evaluates the manuscript and comments of the review
97 team. The following are some of the problems that typically result in manuscript rejection: (1)
98 flaws in design or logic that make the results invalid, biased, or questionable; (2) failure to
99 contribute new knowledge; (3) trivial subject matter; and (4) previous publication of the same or
100 closely related material.

101 The author of a rejected manuscript may feel that referees' comments support publication
102 and that the editorial decision was wrong. The author should realize that the editor receives 2 sets
103 of comments from each referee, 1 open and 1 confidential. The confidential evaluation may

104 reveal weaknesses not mentioned in comments seen by the author. One referee may have
105 discovered weaknesses missed by the other referees. Further, the editor may identify problems
106 missed by both referees and the associate editor.

107 *Appeal and resubmission.* The author may question the reasons for rejection by
108 submitting a letter electronically to the editor, stating his or her case, and asking for
109 reconsideration. Reconsideration of a rejected manuscript requires a convincing rebuttal letter
110 from the author(s). Authors should not revise and resubmit the manuscript without electronically
111 submitting the letter first. The reconsideration request saves time for the editor and the author.

112 *Accepted manuscripts.* Final versions of manuscripts accepted for publication must be
113 submitted via e-mail to the *HWI* editorial office at hwi@usu.edu. See specifications under the
114 Tables and figures section below.

115 **Copyright**

116 If a manuscript not in the public domain is accepted for publication, authors or their
117 employers must transfer copyright to *HWI*. Publications authored by federal government
118 employees are in the public domain. Manuscript submission implies entrusting copyright (or
119 equivalent trust in public-domain work) to the editor until the manuscript is rejected, withdrawn,
120 or accepted for publication. If the manuscript is accepted, *HWI* retains copyright.

121 **Securing appropriate approval(s)**

122 It is increasingly important in today's research community for scientists to ensure that
123 their research activities are conducted such that the welfare of the animals they are studying (e.g.,
124 installing radiotransmitters) or the rights of human subjects (e.g., sending them a survey) is
125 considered. Consequently, it is important that all peer-reviewed and peer-edited manuscripts

126 submitted for publication in *Human–Wildlife Interactions* demonstrate that these concerns have
127 been addressed.

128 **Animal care**

129 Appropriate documentation that proper animal care and use was applied when using live
130 vertebrate animals for research must be submitted prior to publication. Acceptable means of
131 documentation include an Institutional Animal Care and Use Protocol number (as designated by
132 most U.S. universities), the number of the permit or license issued to hold animals (such as with
133 private breeders), or the equivalent. This policy covers all vertebrate animals, including
134 mammals, birds, reptiles, amphibians, and fish. Documentation will be requested after a
135 manuscript is accepted, and prior to publication.

136 **Human subjects**

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

141 **Subject matter**

142 *Human–Wildlife Interactions (HWI)* serves the professional needs of the wildlife
143 biologist and manager in the arena of human–wildlife conflicts/interactions, wildlife damage
144 management, and contemporary wildlife management. The intent of *HWI* is to publish original
145 contributions on all aspects of contemporary wildlife management and human–wildlife
146 interactions with an emphasis on scientific research and management case studies that identify
147 and report innovative conservation strategies, technologies, tools, and partnerships that can
148 enhance human–wildlife interactions by mitigating human–wildlife conflicts through direct and

149 indirect management of wildlife and increased stakeholder engagement. Our intent is to promote
150 a dialogue among wildlife professionals concerning contemporary management issues. As such,
151 we hope to provide a repository for wildlife management science and case studies that document
152 and share manager experiences and lessons learned.

153 **Subject areas**

154 The following general subjects are appropriate for *HWI* articles:

- 155 1. *Management*. These articles typically describe the cause and the effects of specific
156 actions, practices, or policies on the management of human–wildlife conflicts, wildlife
157 damage, and related contemporary management issues. As such, we welcome articles on
158 economics, invasive species, endangered or threatened species, human dimensions,
159 nuisance wildlife, over-abundant species, urban wildlife, wildlife damage, and zoonotic
160 diseases. Articles are usually the results of scientific research and/or long-term case
161 studies. These articles sent are typically assigned to an Associate Editor (AE) and sent
162 out by the managing editor for peer-review by 2 anonymous reviewers. Once the reviews
163 are complete, they are sent along with the original article to the AE for a recommendation
164 to the Editor-in-Chief (EIC) regarding publication merit.
- 165 2. *Techniques*. Technique articles typically report an evaluation of or improvement upon
166 techniques or tools used frequently in wildlife damage management or contemporary
167 wildlife management. These articles are usually shorter in nature from 3 to 12 double-
168 spaced manuscript pages and are also assigned to an AE and sent out for peer-review.
- 169 3. *Contemporary Conservation and Policy Issues*. This category offers our authors greater
170 flexibility, featuring articles that relate to human–wildlife interactions/conflicts and the
171 impact of human activities on wildlife or their habitats. Contributions on political or legal

172 issues, special topics in human–wildlife conflict management, wildlife management,
173 refinement of state or federal natural resource programs or policies, regional or national
174 surveys of wildlife management programs or policies, social movements affecting
175 wildlife management, and related topics are welcome. The articles are assigned to an AE
176 for peer-editing and single review and may be sent out for peer-review based on AE
177 recommendations.

178 4. *Philosophy*. These articles explore the principles, logic, and ethics under which guide the
179 professional management of wildlife. The articles are assigned to an AE for peer-editing,
180 single review, and publication recommendation.

181 **Article categories**

182 1. *Research or Management Articles or Notes*. Manuscripts in this category are articles
183 covering the subject areas identified above. Notes are distinct from peer-reviewed articles
184 in that they are shorter in length, have no abstract, and contain no photos or diagrams
185 except when such are essential to illustrate new techniques or tool. Articles and notes
186 focus on aspects of human–wildlife interactions, wildlife conflict management, wildlife
187 damage management, and contemporary wildlife management that can provide new
188 information obtained through scientific research that may assist wildlife professionals and
189 others in management. Notes are shorter than articles and may present new findings
190 based on limited sample sizes or scale.

191 2. *Management Case Studies*. These articles provide managers with new information to
192 assist managers in enhancing human–wildlife interactions, mitigation human–wildlife
193 conflicts, reducing wildlife damage management, or managing wildlife. The cases studies
194 present data, report observations, and/or summarize experiences documented over time.

195 Unlike management articles or notes, the information reported may not have been
196 obtained through a rigorous experimental design. However, these case studies warrant
197 publication in a peer-reviewed format because of the potential management implications.
198 These articles can include direct and indirect management of wildlife and human
199 dimensions programs or processes.

200 3. *Invited Reviews and Synthesis Articles.* The Editor-in-Chief (EIC) has the option to solicit
201 articles that review and synthesize important topics that pertain to the scientific
202 foundations of human–wildlife interactions, wildlife damage management, and wildlife
203 conservation policy and management. Invited articles must include a Management
204 Implications section, and are reviewed by an AE and the EIC. They are exempt from
205 page charges.

206 4. *In My Opinion.* These articles are essays that explore in detail the underlying values,
207 tenets, and philosophy that guide contemporary wildlife management, wildlife damage,
208 and human–wildlife conflict management. These articles can uncover contemporary
209 dogma, false assumptions and misguided policy, or otherwise stimulate thought and
210 innovation. The EIC may send opinion essays for peer-review but also may accept them
211 without doing so.

212 5. *Commentary.* Commentaries are of 2 types: reaction to a previous article in *HWI* or a
213 response to an issue, movement, policy, or program that could impact the wildlife
214 management, wildlife damage management, and human–wildlife interactions. In either
215 case, the manuscript must be well-documented, prepared professionally, and include an
216 abstract. The EIC may accept Commentary submissions with or without peer-review. The

217 purpose of this category facilitates the dissemination of emerging information in print in
218 a timely way.

219 6. *Letters to the Editor*. Letters to the Editor are short articles that address issues relevant to
220 *HWI*. Appropriate topics include comments on recently published manuscripts (and
221 author responses to the comments) or on topics or methods relevant to human–wildlife
222 interactions, wildlife damage management, or the management of wildlife. Letters should
223 be short (~1,000 words) and consist of a short title, author name and address, text, and
224 Literature Cited if necessary. Letters are selected by the EIC and are not typically subject
225 to peer-review, but they may be assigned to an AE for review or a recommendation.
226 Letters are not subject to page charges.

227 7. *Book, Media, Products, Tools, and Technology Reviews*. These reviews provide a brief
228 synopsis and commentary on a book, media-based communication, product, tool, or
229 technology relevant to some aspect of the human–wildlife interaction or the management
230 of wildlife. This includes computer programs, models, software, or products or tools that
231 can assist managers in conducting their work. These are sent out to an AE for review and
232 publication recommendation.

233 8. *In the News*. This is a special section in each issue of *HWI* that summarizes and shares
234 topics in the news. Topics range from unique observations or incidences involving
235 human–wildlife interactions, wildlife damage management, or wildlife management. This
236 section is designed to disseminate hot topics or issues. The section is usually prepared by
237 an assigned AE, but *HWI* welcomes contributions from our readers.

238 9. *Special Topics*. This is a special section in *HWI* that contains 6 or more articles that
239 address timely or emerging topics. Articles selected for the special section are assigned to

240 an AE and sent out for peer-review. Previous special sections have included papers on
241 urban bear damage, sage-grouse conservation, bird strikes, and invasive species. The EIC
242 invites proposals from authors who are interested in publishing a body of work in a
243 special section. The EIC may also announce a call-for-papers for a special section.

244 10. *Awards and Recognition*. This is a new addition to *HWI*. We desire to share the
245 accomplishments and recognition received by *HWI* contributors and readers. As such, we
246 will dedicate space in each issue to acknowledge the work and accomplishment of the
247 wildlife professionals. Submissions should be no longer than 2 paragraphs and may
248 include a photograph.

249 11. *In Memory*. This is a special section in *HWI* dedicated to honor wildlife professionals
250 who have passed away in the recent year. Submission should be limited to <1,000 words,
251 and we encourage submission of a photograph.

252 **Format and style**

253 **Article length**

254 *Human–Wildlife Interactions* considers articles of any length not likely to exceed 15
255 pages in print (about 40 double-spaced manuscript pages, including tables and figures).

256 **Feature formats**

257 Contributions to *Reviews* have a format identical to regular articles except that the author
258 name and address section appears at the end of the article. Contributions to *In My Opinion*,
259 *Commentary*, and *Research or Management Articles or Notes* have a format identical to regular
260 articles except that these articles do not have an abstract. Other features may be created or
261 changes may be made to existing features as *HWI* evolves to better address the needs of the
262 wildlife professional.

263 **Page format**

- 264 1. Double space the text throughout the manuscript, including title, authors' addresses,
265 abstract, main body of the text, long quotations within the text, literature citations,
266 footnotes, table titles, table bodies, and figure titles.
- 267 2. Do not break (hyphenate) words on the right margin. Breaks on the right margin can lead
268 to confusion over compound modifiers and dashes that could cause an inappropriate word
269 to appear in print.
- 270 3. Do not justify the right margin.
- 271 4. Use Times New Roman font, 12-point type throughout the manuscript, including title and
272 headings. Times New Roman is preferred because some typographical and mathematical
273 symbols are difficult to distinguish in Courier and other fonts. Do not use all capital
274 letters or small capitals except when references to brand or scientific name require it.
- 275 5. Include only 1 space between sentences, not 2 spaces.
- 276 6. Do not use formatting styles from a style menu, as these will need to be removed
277 manually by the typesetter and result in unnecessary delays in production.
- 278 7. Italicize words or symbols, such as scientific names and mathematical symbols, which
279 should appear italicized in print. However, do not use italic type for emphasis. Instead,
280 qualify terms verbally in the text when it is necessary to do so.
- 281 8. Do not use quotation marks for emphasis. Instead, qualify terms verbally in the text when
282 it is necessary to do so. Quotation marks may, however, be used for clarity to set apart a
283 term or phrase under discussion (e.g., don't use the word "don't" or other contractions)
284 when it would be confusing not to do so.

- 285 9. Use boldface type only for the title, first-, and second-level headings. Do not use bold in
286 text for emphasis. Third level headings should be indented and italicized, not boldfaced.
- 287 10. Maintain margins of about 2.5 cm (1 inch) on all sides of the page. The 2.5-cm margins
288 allow for notes among reviewer, author, and editor.

289 **Title page**

290 The correspondence author's address appears single spaced (the only exception to
291 the double-spaced-throughout rule) in the upper left corner of the first page of the
292 manuscript.

293 Include a telephone number for the correspondence author, an e-mail address, and
294 the date when the manuscript or revision was prepared.

295 Insert a running head (RH) at the top of each page with the author's or 2 authors'
296 last names. For >2 authors, insert the principal author's last name followed by the
297 abbreviation "et al." It is important to leave the space at the top of the title page empty for
298 the editorial staff to record information about the manuscript. Maintain a 1-in page margin
299 all around.

300 The article title should be ≤ 10 words, but longer titles are acceptable if shorter
301 titles fail to communicate content accurately.

302 Type authors' names in mixed-case letters. The second, third, and subsequent lines
303 of an address are indented. Include a complete address for each author. If an author's
304 address has changed since the study was conducted, footnote his or her name with a
305 numerical superscript positioned outside the comma following the name, and include the
306 author's present address in the footnote and label it, "Present address." For the
307 correspondence author, add the e-mail address at the end of the author's address in the list

308 of authors on the first page of the manuscript. Also, footnote the contact author for reprints
309 (if other than the correspondence author) with an e-mail address. Simply add a comma and
310 then the appropriate information to the end of the address. Indent the first line of the
311 footnote (2 spaces) and double-space the text. The footnote is followed by a period, but
312 author addresses following the title have no period. Use U.S. Postal Service abbreviations
313 for states and provinces that appear in addresses (Appendix A).

314 The abstract, which appears in peer-reviewed and peer-edited manuscripts, should
315 present a statement of findings in one paragraph not to exceed 3% of the length of the text,
316 including the literature cited. It should include the following information:

- 317 1. Problem studied, question answered, or hypothesis tested and justification for study.
318 What was it and why is it important? Indicate new data, ideas, or interpretations used
319 directly or indirectly to manage wildlife.
- 320 2. Pertinent methods. State the methods used to achieve the results summarized in the
321 Results (keep the methods brief unless a new, greatly improved method is being
322 reported).
- 323 3. Results. Highlight the most important results, positive or negative.
- 324 4. Applicability of results. Explain how, where, when, and by whom data or interpretations
325 can be applied to wildlife problems or contribute to knowledge of wildlife science.

326 **Key words**

327 List 4 to 10 key words, in alphabetical order, that best describe major topics in the
328 manuscript. Your key words will help researchers locate your article using abstracting services.
329 In selecting key words, you should consider who would be interested in finding your article and
330 what key words they will be using in their search. Key words will appear immediately after the

331 abstract. Do not capitalize key words unless they are words that require capitalization, such as
332 proper nouns (e.g., Canada goose). Key words should be separated by a comma; however, there
333 is no punctuation after the last key word.

334 **Text pages**

335 Place author name (e.g., Smith, Smith and Jones, Smith et al.) in the upper left corner of
336 all pages following the title page; place page numbers in the upper right corner. Add line
337 numbers to the document for use during reviewer and editor feedback.

338 **Headings**

339 As demonstrated in these guidelines, 3 levels of headings are used in *HWI* manuscripts:
340 (1) primary headings are set in bold type and centered, with capital letters for only the first letter
341 of the first word and the first letter of proper nouns; (2) secondary headings are the same font
342 size and style, but are flush left; and (3) tertiary headings (run-in sideheads) are indented as part
343 of a paragraph, italicized, and followed by a period and 1 space. Headings should be worded to
344 accurately reflect content of the sections that follow them. For papers giving the results of
345 management research, traditional headings (i.e., Abstract, Study area, Methods, Results,
346 Discussion) are appropriate. However, more descriptive headings should be used if traditional
347 headings do not effectively identify the content of the section.

348 **Style and usage**

349 *Numbers and units.* Use digits for numbers (e.g., 7, 45). Spell out numbers that are the
350 first word of a sentence or that are used as a noun (e.g., at least twenty escaped). Avoid using
351 introductory phrases such as "A total of...". Spell out ordinal numbers (e.g., first, third) in text
352 and in literature cited, but use digits for adjectives such as 3-fold and 2-way. Use decimals rather

353 than fractions except in equations and instances in which conversion to fractions misrepresents
354 precision.

355 When identifying items by number, names should be lowercase (e.g., plot 1, site 5, day
356 3). Use symbols or abbreviations (e.g., %, kg) for measurement units that follow a number,
357 unless the number is indefinite (e.g., thousands of hectares) or is the first word in a sentence.
358 Hyphenate number–unit phrases used as adjectives (e.g., 6-m² plots, 1-year-old males) but not
359 those used as predicate adjectives, i.e., after forms of the verb *to be* (e.g., plots were 3 m²). Insert
360 commas in numbers $\geq 1,000$ (except for pages in books, clock time, or year dates). Do not insert a
361 comma or hyphen between consecutive, separate numbers in a phrase (e.g., 25 2-m² plots). Do
362 not use naked decimals (i.e., use 0.05, not .05). Means and standard errors should not be reported
363 to a decimal place beyond the precision measured in your experiment. Reporting of mean of
364 5.231 indicates that your experiment allowed you to detect the difference between 5.231 and
365 5.232. In most cases, means should not be reported beyond the tenths decimal place (e.g., 5.2).

366 *Times and dates.* Use the 24-hour system (0100 through 2400 hours) in discussions of
367 time. Date sequence is month/day/year (e.g., February 4, 1947). Spell out the names of months
368 except in figures and table bodies, using 3-letter abbreviations without a period (Appendix B).
369 Do not use an apostrophe when referring to an entire decade (i.e., 1940s, not 1940's).

370 *Statistics.* When reporting values, follow the guidelines listed below.

371 1. Values should be taken only to the level that makes sense based on your sample size
372 when reporting in percents, proportions, and means. If you are taking a value to the
373 hundredths place, you are stating that you can measure things that finely and that the
374 difference between values at that level are biologically meaningful (e.g., a mass of
375 455.456 g is really different from the value of 455.457. As a rule-of-thumb, report only

- 376 whole numbers for percents and hundredths place for proportions or means when sample
377 sizes are less than 100. You need a sample size >200 before you can take percents to the
378 tenth place or proportions and means to the thousandths place.
- 379 2. Statistical test values (t , F , χ^2) should be reported to the hundredths place.
- 380 3. P values should be reported to the hundredths place unless the P value is >0.01 . In that
381 case, report it to the first values that is not a zero (e.g., $P = 0.001$, $P = 0.003$).
- 382 4. Italicize Roman letters used in the text as symbols for statistics, tests, or variables (e.g., n ,
383 0 , R , F , t , Z , P ; Appendix B). Do not italicize numbers or names of trigonometric and
384 transcendental functions or certain statistical terms (e.g., \ln , \max ., \min ., SD , and SE).
385 Insert symbols from your word processing program's symbol directory as opposed to
386 creating the symbol with keyboard functions (e.g., chi-square should appear as χ^2 [found
387 in the symbol directory], not X^2 [created with keyboard functions]).
- 388 5. Insert a space on either side of symbols when used as conjunctions in an equation (e.g., n
389 $= 12$, $P = 0.002$), but not when used as adjectives (e.g., >20 observations). Where
390 possible, report exact probabilities (e.g., $P = 0.057$, as opposed to $P > 0.05$). A subscript
391 precedes a superscript (e.g., x_i^3) unless the subscript includes >2 characters (e.g., x_{jul}^3).
- 392 6. Avoid redundant use of the word "significantly" (e.g., "the means differed [$P = 0.016$]").
393 Report results of statistical tests or central tendency as in the following examples: ($t_1 = 2.47$, $P =$
394 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
395 that the appropriate degrees of freedom are subscripted with the test statistic. P -values >0.001
396 should be presented as $P \leq 0.001$. (If mean symbol is unavailable on your computer program,
397 simply write the word mean.)

398 *Abbreviations and acronyms.* Metric units, their appropriate prefixes, and abbreviations
399 identified by an asterisk in Appendix B may be used in text. All other abbreviations or acronyms
400 (except DNA) must be defined the first time used in the abstract and also in the text. Do not start
401 sentences with acronyms; do not use an apostrophe with plural acronyms (e.g., ANOVAs).
402 Abbreviations in Appendices A–C may be used within parentheses, except for state and country
403 names when they form part of organization or agency names (e.g., Mississippi Department of
404 Wildlife, Fisheries, and Parks, not MS Department of Wildlife, Fisheries, and Parks). However,
405 when referring to a federal agency, write the abbreviation (e.g., U.S. Department of Agriculture;
406 U. S. Congress). Use the abbreviation U.S. when it is an adjective (e.g., U.S. laws that apply),
407 but write out United States when it is used as a noun (e.g., in the United States).

408 *Punctuation.* Use a comma before the conjunction in a serial list of >2 items (e.g., red,
409 black, and blue). Use a comma before the conjunction in a compound sentence (e.g., “Use an
410 infrared scope at night, and be sure to record your results.”). Do not hyphenate prefixes, suffixes,
411 or combining forms (e.g., postpartum) unless necessary to avoid misreading. Hyphenate
412 compounds used as adjectives (e.g., 1-m plot, 2-day period, 14-cm dbh).

413 Although the rules for hyphenation are complex, there are a few basic principles:

- 414 1. a phrase containing a participle or an adjective is hyphenated as a compound when it
415 precedes the word modified (e.g., home-range estimation) and is written without a
416 hyphen when it follows the word modified (estimation of home range);
- 417 2. a modifier containing a number is usually hyphenated (e.g., 3-month-old fawn); and
- 418 3. a 2-word modifier containing an adverb ending in -ly is not hyphenated (e.g., publicly
419 owned land).

420 However, excessive use of compound modifiers before nouns makes for difficult reading;
421 they tend to obscure the true subject. Avoid ambiguous use of nouns as modifiers (e.g., wolf
422 researchers, woman hunters). Use prepositions to avoid using nouns as adverbs (e.g., nesting by
423 birds, not bird nesting; hunting with dogs, not dog hunting) and to avoid noun strings exceeding
424 3 words (e.g., “radiotelemetry locations of dens in fall”, not “fall den radiotelemetry locations”).
425 Avoid using more than 3 adjectives to modify a single noun.

426 Do not use a slash (/) to indicate "and" or "or" or to express a range; use slash only to
427 indicate "divided by" or "per".

428 Avoid using words in ways other than their standard meanings; only sparingly use
429 quotation marks to imply a special meaning and never to denote emphasis.

430 Trademarks (i.e.,™, ®) should be used at the first mention of a product name, where
431 appropriate, and not thereafter.

432 Closing quotation marks should be placed after periods and commas, but may be placed
433 either before or after other punctuation (CBE Style Manual Committee 1994:177–181). Fences
434 must appear in pairs; however, the sequence varies: use ([]) in regular sentences, use {[()]} in
435 mathematical equations, and use (()) in special cases such as chemical names. Use brackets to
436 enclose something not in the original work being quoted (e.g., insertion into a quotation or a
437 translated title [CBE Style Manual Committee 1994:58–59]).

438 *Enumeration.* Do not number series within a sentence or paragraph (e.g., 4 study
439 objectives) unless some of the clauses or sentences are lengthy or involve complex punctuation.
440 In such cases, place parentheses around the number, e.g., (1), (2), (3). When enumerating lengthy
441 or complexly-punctuated series, place the numbers at the left margin, with periods but no
442 parentheses, and indent run-on lines (see examples under the heading “Subject matter,” above).

443 Species plurals. When discussing a group of animals in a study, use the plural form, e.g., “We
444 collected data about alligators in Louisiana.”, not “We collected data about alligator in
445 Louisiana.” When speaking of a species in general, use the singular form and add “the,” e.g.,
446 “Very few studies have been conducted on the alligator, and more research is needed.” Also
447 remember that data is a plural noun and requires an appropriate verb (e.g., the data are).

448 **Common and scientific names**

449 Do not capitalize common names, except words that are proper names (e.g., Florida
450 panthers [*Puma concolor*], Canada goose [*Branta canadensis*]). Scientific names (in italics, in
451 parentheses) should follow the first mention of a common name, except in the title. Scientific
452 names should be given the first time a species is mentioned in the abstract and again the first
453 time it is mentioned in the text. Abbreviate genus names with the first letter when they are
454 repeated within a few paragraphs, provided the meaning cannot be confused with another genus
455 with the same first letter.

456 Do not use subspecies names unless it is essential, and omit the taxonomic author's name.
457 Use "sp." (not italicized) to indicate species unknown and use "spp." for multiple species. Use
458 the most widely accepted nomenclature in cases where disagreement occurs. Refer to the most
459 current edition of the American Ornithologists' Union check-list of North American birds or the
460 American Ornithologists' Union Birds of North America website
461 (<http://bna.birds.cornell.edu/BNA>) as general references for North American bird species. For
462 mammals, use Nowak (1991), Wilson and Reeder (2005), or the Smithsonian Institution's
463 Mammal Species of the World website (<http://nrmhgoph.si.edu/msw>). Please note that websites
464 cannot be cited as sources because they are not recognized as acceptable scientific references;
465 however, those listed above may be used to check scientific names. There is no single reference

466 source for North American plants; however, we recommend citing the most widely accepted
467 regional flora reference (e.g., in northwestern states, Hitchcock and Cronquist 1973). Do not
468 include scientific names of domesticated animals or cultivated plants unless a plant is endemic or
469 widely escaped from cultivation or is a variety that is not described adequately by its common
470 name.

471 **Measurement units**

472 Use Systeme Internationale d'Unites (SI) units and symbols. Avoid using English units in
473 parentheses. However, the following non-SI units are permitted:

474 Area: hectare (ha) in lieu of 10^4 m².

475 Energy: calorie (cal) in lieu of Joule (J).

476 Temperature: Celsius (°C) in lieu of Kelvin (K).

477 Time: minute (min), hour (hr), day (do not abbreviate), etc., in lieu of seconds (sec).

478 Volume: liter (L) in lieu of dm³.

479 **Citing literature in text**

480 In most cases, you should reference citations parenthetically at the end of a sentence; e.g.,
481 Mallard brood survival was greater in the wettest years (Rotella 1992). Published literature is
482 cited chronologically (e.g., Jones 1980, Jones and White 1981). For works with >2 authors, use
483 "et al." after the first author's name (e.g., Jones et al. 1982). Do not separate the author and date
484 by a comma, but commas to separate a series of citations. Citations in a series should be put in
485 chronological order. For citations with the same year, use alphabetical order within the
486 chronological order (e.g., Jones 1980, Brown 1991, Monda 1991, Rotella 1991, Allen 1995). If
487 citations in a series have >1 reference for the same author(s) in the same year, designate the years
488 alphabetically (in italic type) and separate citations with semicolons (e.g., Jones 1980*a, b*;

489 Hanson 1981; White 1985, 1986). Do not give >4 citations in the text to reference a specific
490 issue or scientific finding. For a direct quotation, cite author and year, followed by a colon and
491 page number(s), e.g., Manfredo et al. (1996:54) defined human dimensions as "an area of
492 investigation which attempts to describe, predict, understand, and affect human thought and
493 action...."

494 Cite documents that are cataloged in major libraries, including theses and dissertations, as
495 published literature. These citations include symposia, proceedings, and U.S. government reports
496 that have been widely distributed (see *Literature cited style*). All other documents, including
497 information obtained from websites, should be cited as unpublished data in the text only.

498 **Citing unpublished sources in text**

499 If references are not easily available or are not widely distributed they should be cited in
500 text only. This includes reports that are not published or widely distributed, manuscripts that
501 have not yet been accepted for publication, and personal communications and observations.

502 These references should be cited in text as follows:

503 Personal communication: (J. G. Jones, National Park Service, personal communication)

504 Unpublished report: (D. F. Timm, Alaska Department of Fish and Game, unpublished
505 report) or (E. J. Jones, North Carolina State University, unpublished report)

506 Unpublished data (including manuscripts in review): (D. F. Brown, Arizona Game and
507 Fish Department, unpublished data)

508 Unpublished data from websites (avoid if possible): (www.berrymaninstitute.org, April 4,
509 2005, unpublished data)

510 **Note:** State and country names are abbreviated in parentheses (Appendix A) except
511 when they appear in the title of an academic institution or agency.

535 authoritative statistical records or reference sources (e.g., U.S. census figures or the American
536 Ornithologists' Union Birds of North America website) are now posted on the Internet and are
537 acceptable for citation.

538 In formatting Literature cited entries, use the word-processing ruler to create hanging
539 indents, not tabs or space bar.

540 **Book—general format**

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

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

545 *Note:* Do not write the total number of pages at the end of book citations.

546 **Book with >1 edition**

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

549 *Note:* As in the text, write out all ordinal numbers (e.g., Second edition, Third edition,
550 etc.)

551 *Note:* For publishers, do not include words like Company, Incorporated, Limited, Press,
552 or Publishing (e.g., Harper and Row, not Harper and Row Publishers), except when citing
553 university presses (e.g., Yale University Press), which often are a separate entity from the
554 university.

555 **Book with >1 volume**

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

558 Book with >1 publisher

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

562 Book with editor as author

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

565 Book reprint

566 Leopold, A. 1933. Game management. 1946, Reprint. Scribner's, New York, New York, USA.

567 Chapter within a book

568 Fite, E. 1994. The environmental protection agency's avian pesticide assessment model. Pages
569 519–530 in R. J. Kendall and T. E. Lacher, editors. Wildlife toxicology and population
570 modeling integrated studies of agroecosystems. CRC, Boca Raton, Florida, USA.

571 Theses and dissertations

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

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

577 *Note:* Use the word Thesis to denote Master of Science (M.S.) or Master of Arts (M.A.)
578 and Dissertation for Doctor of Philosophy (Ph.D.).

579 Journal—general format

580 Miller, M. R. 1986. Molt chronology of northern pintails in California. Journal of Wildlife

581 Management 50:57–64.

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

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

586 **Journals in press—year and volume known**

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

589 *Note:* "In press" indicates that the manuscript has been officially accepted for publication.
590 This does not include manuscripts that are being considered for publication; these
591 references should be cited in the text as unpublished data.

592 **Journals in press—year and volume unknown**

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

595 *Note:* These references are cited in text as (Giudice and Ratti, in press).

596 **Symposia and proceedings—complete volume**

597 DeGraaf, R. M., technical coordinator. 1978. Proceedings of a workshop on management of
598 southern forests of nongame birds. U.S. Forest Service, General Technical Report SE-14.

599 **Symposia and proceedings—individual article**

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

603 **Symposia and proceedings-part of a numbered series**

604 Kroll, J. C. 1994. These were the good old days: a new paradigm for white-tailed deer
605 management. Proceedings of the Annual Southeastern Deer Study Group 17:20–21.

606 **Symposia and proceedings—not part of a numbered series—complete volume**

607 McAninch, J. B. 1995. Urban deer: a manageable resource? Proceedings of the Symposium of
608 the 55th Midwest Fish and Wildlife Conference. North Central Section of The Wildlife
609 Society, St. Louis, Missouri, USA.

610 **Symposia and proceedings—not part of a numbered series—individual article**

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

614 **Government publication**

615 Lull, H. W. 1968. A forest atlas of the Northeast. U.S. Forest Service, Northeastern Forest
616 Experiment Station, Upper Derby, Pennsylvania, USA.

617 **Government publication—part of a numbered series**

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

621 **Government publication—agency as author**

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

624 *Note:* Cite in text as National Research Council (1977) or, if it appears in parentheses,
625 cite as (Natl. Res. Counc. 1977).

626 **Newspaper, newsletter, and magazine articles**

- 627 Associated Press. 1997. Feathers could fly over dove hunting. Columbus Dispatch. December
628 28, 1997; section E:15.
- 629 Eisler, P., and J. T. Buckley. 1996. Voters to get a shot at hunting laws. USA Today. April 25,
630 1996; section A:4.
- 631 Hogan, M. 1997. Political season as important as hunting season. Safari Times 9(8):18.
- 632 Jones, D. M. 1997. Protecting animals at the ballot box. Mainstream, Animal Protection Institute.
633 Spring: 24–27.
- 634 Jones-Jolma, D. 1993. The fight to reform trapping in Arizona. The Animals' Agenda. March–
635 April:20–24.
- 636 *Note:* Citing from newspapers, newsletters, and magazines generally is discouraged but
637 may be acceptable only in certain circumstance (e.g., in papers dealing with public
638 perceptions).

639 **Internet sources**

- 640 FAA. 2008. National wildlife strike database select, Federal Aviation Administration,
641 Washington, D.C., USA, <http://www.wildlife.pr.erau.edu/databast/select_iv.php>.
642 Accessed March 10, 2010.
- 643 Prukop, J., and R. Regan. 2002. The value of the North American model of fish and wildlife
644 conservation. International Association of Fish and Wildlife Agencies, Wildlife
645 Resources Policy Committee, white paper. Orion: The Hunter's Institute,
646 <<http://huntright.org/heritage/conservation.aspx>>. Accessed March 10, 2010.
- 647 *Note:* Format for Internet sources is: *author or organization, date, title of web page,*
648 *sponsor of web page or publisher, location of publisher (city, state, country), web*
649 *address, date last accessed.*

650 Court cases

651 Cite complete title and year of case in text only.

652 Tables and figures

653 Tables generally require more effort per page from the editorial staff than other parts of a
654 manuscript perhaps because tables are subject to format and style rules not appreciated by many
655 authors (Table 1). Write complete titles (double-spaced) so a reader can understand the table
656 without referring to the text. The title should include names of characteristics and organisms
657 measured, measurement unit(s) in parentheses, places, and dates. Avoid >1 sentence, and use
658 footnotes to explain details if necessary.

659 Submit only essential tables and figures. Often tables overlap with presentation in the text
660 or the information can be printed easily in the text with less journal space. Do not present the
661 same data both in a table and a figure. Number tables and figures independently. In the text, limit
662 reference of tabular data to highlights of the most important information. In most cases, reference
663 tables and figures parenthetically. Avoid statements such as "The results are shown in Tables 1–
664 4." Prepare line drawings only for data that cannot be presented as clearly in a table. For general
665 guidance, see CBE Style Manual Committee (1994:677–693).

666 Tables and figures should be self-explanatory; avoid references to the text, and be sure
667 the title includes the species or subject of the data and where and when the data were collected.
668 In rare cases, titles or footnotes of tables and figures may be cross-referenced to avoid repeating
669 long footnotes or the same data. However, this violates the "self-explanatory" rule and should be
670 avoided, if possible. Tables and figures should be included on separate sheets at the end of the
671 text rather than inserted into the document. In addition, they should be submitted electronically

672 as separate files in their original program, either via e-mail at hwi@usu.edu or through the USU
673 Big File Transfer system at <https://bft.usu.edu/>.

674 **Tables**

675 *Constructing tables.* Do not prepare tables for small data sets (those containing many
676 blank spaces, zeros, repetitions of the same number or those with few or no significant data);
677 include such data in the text. For data that must be shown in a table, items that provide the most
678 important comparisons usually read vertically, not horizontally.

679 Tables should be created using the table function of the word processing software. Do not
680 use tabs or spaces to create tables. Put only 1 row of text in 1 row of cells, and never use a
681 multiple-text column format within a table.

682 *Table titles.* Table titles should provide information succinctly in the following sequence:
683 (1) name of the characteristic that was measured (e.g., weight, age, density), (2) measurement
684 unit or units in parentheses (e.g., cm, No./ha, M:100 F, %), (3) name of species or other entity
685 measured (e.g., "of white-tailed deer"), and (4) location(s) and date(s) of study. Keep in mind
686 that each part of the sequence can include >1 item (e.g., "Carcass and liver fat [%] and adrenal
687 and kidney weight [mg] of white-tailed deer in Ohio and Michigan, 1975").

688 Avoid beginning the table title with puff words (e.g., The..., Summary of..., Comparisons
689 between...) and words that can be presented parenthetically as symbols or abbreviations (e.g., %).
690 Symbols such as n and % in the table title seldom need repetition in table headings. Do not use
691 abbreviations in table titles, except within parentheses. However, use standard abbreviations and
692 symbols (Appendix A–C) in the table body.

693 *Rules.* The lines printed in tables are called "rules," and they should be used according to
694 the following *HWI* standards:

- 695 1. Do not use vertical rules in tables. Each table should contain at least 3 rules—1 below the
696 title, 1 below the column headings, and 1 at the bottom.
- 697 2. Use rules that straddle subheadings (straddle rules) within column headings.
- 698 3. Do not use rules to show summation. Use "Total" or its equivalent in the row heading.
- 699 4. Do not use rules to join the means in multiple-range tests. Use Roman uppercase letters
700 instead of rules (e.g., 12.3A^a, 16.2A, 19.5B) where the superscript "a" references a footnote, such
701 as "^a Means with the same letters are not different ($P < 0.10$)". Uppercase letters may be used in
702 a similar way to reference the relationship of data among columns.

703 Use straddle rules liberally to join related columns and reduce verbiage. Label columns to
704 avoid unnecessary print in the data field. For example, instead of " $\bar{x} \pm SE$," label \bar{x} and SE as
705 separate columns so that \pm need not be printed. Similarly, label sample size columns "n" instead
706 of using numbers in parentheses in the data field.

707 *Table headings.* Keep column- and row-heading words or symbols (e.g., %, n, SE) out of
708 the data field. Type the main headings flush left, and indent their subheadings.

709 *Data field.* In the data field, do not use dashes (which are often misused to mean "no
710 information") or zeros, unless the item was measured and 0, 0.0, or 0.00 correctly reports the
711 measurement. If no information is available, leave a blank space. Also, respect digit significance
712 in all numbers, particularly percentages. Do not use percentages where n is <26 , except for 1 or 2
713 samples among several others where n is >25 . Where the number of significant digits varies
714 among data in a column, show each datum at its precision level; i.e., do not exaggerate precision.
715 For P values, do not use >3 digits past the decimal, and do not list $P = 0.000$; the proper form is
716 $P \leq 0.001$.

717 Never include naked decimal points in the data field. In other words, all decimal points
718 should be surrounded by a number (e.g., 0.05, 1.00, etc.).

719 *Footnotes.* For footnote superscripts, use asterisks (*, **, etc.) for probability levels and
720 lowercase Roman (not italic) letters for other footnotes. Place letters alphabetically in the
721 following sequence: (1) title, (2) left to right in the table, and (3) down the table. Be certain that
722 each footnote character in the title and table matches the explanation written below the table.

723 Left-justify run-on lines of footnotes. Use footnotes liberally to reduce cluttering the title
724 and table with details.

725 Keep in mind that the most common errors in tables are single spacing, incomplete titles,
726 naked decimal points, misalignment of table columns, and ambiguous or unnecessary characters
727 in the data field. Being aware of these problems beforehand may save you time during the review
728 and the revision process.

729 **Figures**

730 Editors of *HWI* encourage the use of line drawings, photographs, or other illustrations
731 that improve communication. Lettering in figures should be sentence case (i.e., mixed-case
732 letters) and must be >1 mm tall when the figure is reduced. Suggestions for preparing high-
733 quality illustrations can be found in Allen (1977) and the CBE Style Manual (1994:693–699).

734 Provide all figures and photos that you intend to include in your article along with your original
735 manuscript submission. Photos are considered figures and, as such, should include captions, such
736 as those described below. High resolution print-quality electronic figures are not required when
737 the manuscript is submitted for consideration, but must be sent to the editor with the author's
738 final revision after the manuscript has been accepted. Before sending final figures and photos,
739 contact *HWI*'s managing editor for additional instructions.

740 *Figure captions.* Type all figure captions on one page and label each figure. Figure
741 captions tend to be longer than table titles. The caption may be several sentences long and
742 include brief suggestions for reading and interpreting the figure. If appropriate, include a
743 statement of credit at the end of the caption (e.g., "Photo by R. Dolbeer.", or "Photo courtesy
744 U.S. Fish and Wildlife Service.").

745 *Figure submission.* Figures will be printed in black ink only, so line art must not contain
746 or rely on color for interpretation. Scanned line art, such as graphs or drawings, should be saved
747 as a tif file at a resolution of 1200 ppi in the black-and-white setting at a physical dimension of
748 approximately 5 x 7 inches. If a figure is created electronically, the computer graphics file is
749 preferred. Do not embed graphics or photos in a word processing program. The most desirable
750 formats for figures include, in order of preference: tif, jpg, Postscript (eps, ps, prn), PowerPoint
751 (ppt, pps), and Excel chart (xlc). Contact the editorial office if you have questions regarding
752 formats.

753 Line drawings and photos must be high-quality, easily reproducible prints. Hand-drawn
754 lines and lettering are not acceptable for line drawings. We recommend professional preparation
755 of line drawings. Lettering from modern personal computer graphics software and printers is
756 acceptable and recommended. When preparing figures, please keep in mind that components of
757 the figure (including lettering) must be of sufficient size and clarity to be legible after its
758 reduction to fit the size of *HWI's* page (6 x 9 in). Often a figure or graph will be reduced to 1 or
759 slightly more than 1 column. Recommended letting font is sans serif, such as Arial or Helvetica.
760 **Use mixed case in all instances within figure text, with the exception of capitalizing all**
761 **formal names or acronyms.**

762 Photos and slides that are submitted electronically should be high resolution, preferably
763 300 ppi (i.e., pixels per inch). When taking photos using a digital camera, set the camera to the
764 highest resolution possible. Line drawings and graphs should be at a resolution of 1200 ppi.,
765 saved as a tif file, and sent to the *HWI* editorial office via e-mail or through the USU Big File
766 Transfer system at <https://bft.usu.edu/>.

767 Photos must have sharp focus, high tonal contrast, and a reference scale if size is
768 important to the purpose of the illustration. Sets of 2 to 4 related photos may be presented as one
769 figure if they are the same width. Label photos that will appear in the same figure as A, B, C, and
770 D for reference in the caption and in text. Cropping often improves composition of photos. An
771 emailed statement of permission by the photographer for *HWI* to use the photos should
772 accompany submissions.

773 *Text in figures.* Text used within figures should be sentence case (mixed-case), Roman
774 (not italic) type, unless these special attributes are essential to the meaning of the text, as in
775 mathematical terms (e.g., *n*, *N*, etc.) and most metric units (kW, m, etc.). Use standard
776 abbreviations (Appendices A–C) in the figure body, but not in the figure caption. Identify any
777 unusual symbols used in a legend within the figure (preferred) or in the figure caption.

778 *Acknowledgments.* The acknowledgments appear immediately before the literature cited
779 section and should be brief. All acknowledgments should include both initials (where
780 appropriate) and the last name of individuals acknowledged. Wording should be simple, without
781 qualifying adjectives. A. Ballard provided valuable assistance in preparing the appendices for
782 this revision. D. L. Minnis provided assistance with reviewing drafts. We thank L. S. Andrews
783 and B. D. Leopold for allowing us to use sections of their 2000 guidelines for *WSB* in compiling
784 *Guidelines for authors and reviewers of Human–Wildlife Interactions manuscripts.*

785 **Literature cited**

- 786 Allen, A. 1977. Steps toward better illustrations. Allen, Lawrence, Kansas, USA. American
787 Ornithologists' Union. 1977. Check-list of North American birds. Seventh
788 edition. Allen, Lawrence, Kansas, USA.
- 789 CBE Style Manual Committee. 1994. Scientific style and format: the CBE manual for authors,
790 editors, and publishers. Sixth edition. Council of Biological Editors, Cambridge
791 University Press, New York, New York, USA.
- 792 DeBakery, L. 1976. The scientific journal: editorial policies and practices. C. V. Mosby, St.
793 Louis, Missouri, USA.
- 794 Guthery, F. S. 1987. Guidelines for preparing and reviewing manuscripts based on field
795 experiments with unreplicated treatments. *Wildlife Society Bulletin* 15:306.
- 796 Guthery, F. S., N. E. Koerth, and D. E. Capen. 1988. Guidelines for authors and reviewers of
797 *Wildlife Society Bulletin* manuscripts. *Wildlife Society Bulletin* 16(1, Supplement).
- 798 Hitchcock, C. L., and A. Cronquist. 1973. *Flora of the Pacific Northwest*. University of
799 Washington Press, Seattle, Washington, USA.
- 800 Hurlbert, S. H. 1984. Pseudoreplication and the design of ecological field experiments.
801 *Ecological Monographs* 54:187–208.
- 802 Kendall, R. L. 1981. Dual publication of scientific information. *Transactions of the American*
803 *Fisheries Society* 110:573–574.
- 804 Kendall, R. L. 1985*a*. Role of the U.S. government in aquaculture. Pages 83–104 *in* Proceedings
805 of the 1983 International Association of Fish and Wildlife Agencies Meeting, September
806 13, 1983, Milwaukee, Wisconsin, USA.
- 807 Kendall, R. L. 1985*b*. Toxic substances in the aquatic environment. Pages 42–56 *in* Papers from

- 808 the American Fisheries Society Symposium, September 24, 1982, Hilton Head, South
809 Carolina, USA.
- 810 Nowak, R. M. 1991. Walker's mammals of the world. Volumes 1 and 2. Fifth edition.
811 Johns Hopkins University Press, Baltimore, Maryland, USA.
- 812 Ratti, J. T., and L. W. Ratti. 1988. Manuscript guidelines for the Journal of Wildlife
813 Management. Journal of Wildlife Management 52(1, Supplement).
- 814 Ratti, J. T., and L. A. Smith. 1998. Manuscript Guidelines for the Journal of Wildlife
815 Management. Journal of Wildlife Management 62(1, Supplement).
- 816 Reidel, S. and Crowder, H. 1999. Wildlife Society Bulletin guidelines for manuscripts: 1998
817 revision of guidelines for authors and reviewers of Wildlife Society Bulletin manuscripts.
818 Wildlife Society Bulletin 26: 657–690.
- 819 Wilson, D. E., and D. M. Reeder, editors. 1993. Mammal species of the world: a
820 taxonomic and geographic reference. Second edition. Smithsonian Institution,
821 Washington, D.C., USA.
- 822 Wilson, D. E., and D. M. Reeder, editors. 2005. Mammal species of the world: a taxonomic and
823 geographic reference. Third edition. Smithsonian Institution, Washington, D.C., USA.
- 824 (Note: Most of the citations used as examples in the text do not appear in the Literature cited.)

Table 1. Format and style guidelines for tables accompanying manuscripts submitted to *Human–Wildlife Interactions*.

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 The first line of a footnote is indented (2 spaces). The remaining lines are flush with the left margin and double-spaced. See the subheading for footnotes under the Tables heading above.

Table 2. Example of correct format of tables accompanying manuscripts submitted to *Human–Wildlife Interactions*.

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

Appendix A. Abbreviations for U.S. and Canadian political units. Use American National Standards Institute (ANSI) abbreviations in parentheses, table and figure bodies, and footnotes. Do not abbreviate in text. Use U.S. Postal Service (USPS) abbreviations in addresses with zip codes. A blank means do not abbreviate.

Unit	ANSI	USPS	Unit	ANSI	USPS
U.S. territories			U.S. territories (cont'd)		
Alabama	Ala.	AL	Montana	Mont.	MT
Alaska	Alas.	AK	Nebraska	Nebr.	NE
Arizona	Ariz.	AZ	Nevada	Nev.	NV
Arkansas	Ark.	AR	New Hampshire	N.H.	NH
California	Calif.	CA	New Jersey	N.J.	NJ
Colorado	Colo.	CO	New Mexico	N.M.	NM
Connecticut	Conn.	CT	New York	N.Y.	NY
Delaware	Del.	DE	North Carolina	N.C.	NC
District of Columbia	D.C.	DC	North Dakota	N.D.	ND
Florida	Flor.	FL	Ohio	Oh.	OH
Georgia	Ga.	GA	Oklahoma	Okla.	OK
Guam		GU	Oregon	Oreg.	OR
Hawaii	Haw.	HI	Pennsylvania	Pa.	PA
Idaho	Id.	ID	Puerto Rico	P.R.	PR
Illinois	Ill.	IL	Rhode Island	R.I.	RI
Indiana	Ind.	IN	South Carolina	S.C.	SC
Iowa	Ia.	IA	South Dakota	S.D.	SD

Appendix B. Abbreviations commonly used in tables, figures, and parenthetical expressions.

Only those metric units and their appropriate prefixes identified by an asterisk (*) may be abbreviated in text. A blank means do not abbreviate.

Term	Abbreviation or symbol	Term	Abbreviation or symbol
amount	amt	logarithm, base 10	log ₁₀
approximately	approx	logarithm, base e	log _e or ln
average	*	male	M
calorie	cal*	maximum, minimum	max., min.
Celsius	°C*	meter ^a	m*
chi-square	2	metric ton	t
coefficient	coeff	mile	mi

coefficient of		minute	min
correlation, simple	r	month	
multiple	R	month names	Jan, Feb, ...
determination, simple	r^2	more than	>*
multiple	R^2	number (of items)	No.
variation	CV	observation	obs.
confidence interval	CI	parts per billion	ppb*
confidence limits	CL	parts per million	ppm*
day		percent	%*
degrees of freedom	df	population size	N
diameter	diam	probability	P
diameter breast height	dbh	range	
experiment	exp.	sample size	n
female	F	second	sec
F -ratio	F	Spearman rank correlation	r
gram	g*	square	sq
gravity	g	standard deviation (s)	SD
hectare	ha*	standard error	SE
height	ht	Student's t	t
Hotelling's T^2	T^2	temperature	temp
hour(s)		versus	vs.
Joule	J*	volt	V*
kilocalorie	kcal*	volume	vol.
lethal concentration, 50%	LC ₅₀	watt	W*
lethal dose, median	LD ₅₀	week	
less than	<*	weight	wt
limit	lim	Wilcoxon test	T
liter	L*	year	yr
		Z-statistic	Z*

^a All standard meter-based measurement units can be abbreviated in text when they appear after a number (e.g., mm, cm, km, etc.).

Appendix C. Abbreviations^a to be used in parenthetical expressions and table and figure bodies only. An asterisk (*) indicates a frequently misabbreviated word; a blank means do not abbreviate.

Term	Abbreviation	Term	Abbreviation
abstract-	abstr.	circula-	circ.
academ-	acad.	clini-	clin.
acta		college(i)-	coll.
administr-	adm.	commerc-	commer.
advanc-	adv.	commission-	comm.
aeronautic-	aeronaut.	committee	comm.
affair-	aff.	commonwealth	commonw.
Afri-	Afr.	Commonw. Sci. and Ind.	C.S.I.R.O.
agency		Res. Organ.	
agricult-*	agric.	communications	commun.
agronom-	agron.	company[ies]	co.
Ameri-*	Am.	completion	
anali[y]-	anal.	confer-	conf.
anals	an.	congres-	congr.
anatomical	anat.	conserva-*	conserv.
animal-	anim.	contamina-	contam.
annal-	ann.	catalogue	cat.
annu-*	annu.	coopera-	coop.
Antarcti-	Antarct.	coordinator	coord.
appli-	appl.	corporation	corp.
approximately	approx.	council	counc.
archaeology	archaeol.	current	curr.
archiv-	arch.	depart-*	dep.
Arctic	Arct.	develop-	dev.
assistance	assist.	disease	dis.
associ-	assoc.	disserta-	diss.
Atlanti-	Atl.	district	dist.
atmos-	atmos.	divis-	div.
Australi-	Aust.	Doctor of Philosophy	Ph.D.
avian		east*	
bac(k)teriolog-	bac(k)teriol.	eastern*	east.
behavio(u)r-	behav.	ecolog-	ecol.
bibliogra-	bibliogr.	econom-	econ.
biennial	bienn.	education(al)	educ.
biochem-	biochem.	electric[q]-	elec.
biolo-	biol.	endocrinolog-	endocrinol.
biometri-	biom.	energy	

board		engineer- Engl-	eng.
botan-	bot.	entomolog-	Engl.
branch		environment-	entomol.
breeder		Europ-	environ.
British*	Br.	evol-	Eur.
bullet-	bull.	experiment-	evol.
bureau-	bur.	fauna	exp.
Canad-	Can.	federa- field-	
center-	cent.	naturalist	fed.
central	cent.	Finni- fishery[ies]	field-nat.
chapter*	chap.	forest- mountain	Finn.
chemic-	chem.	muse- national-*	fish. for.
chronicle	chron.	National Academy of	mt. mus.
foundation	found.		natl.
Franc-	Fr.		Natl. Acad. Sci.
French	Fr.		
gazette	gaz.		
		Science	
genera-	gen.	National Research Council	Natl. Res. Counc.
geogra-	geogr.	National Aeronautics and	Natl. Aeronaut.
geolog-	geol.	Space Administration	and Space Adm.
German-	Ger.	National Oceanic and	Natl. Oceanic and
Gesellschaft	Ges.	Atmospheric	Atmos. Adm.
		Administration	
go(u)vernment-	gov.	natural [al-] ^b [el-]	nat.
handb-	handb.	newsletter	newsl.
helmintholog-	helminthol.	nomenclat-	nomenclat.
herpetolog-	herpetol.	north*	
histo(i)r-	hist.	northeast*	
human	hum.	northeastern*	northeast.
ichthyolog-	ichthyol.	northern*	north.
immunolog-	immunol.	northwest*	
information	inf.	northwestern	northwest.
inland		Norwegian	Norw.
instit-	inst.	note(s)	
interi-	inter.	occasion-	occas.
internal	intern.	offi-	off.
internat[z]-	int.	organic[q]-	org.
investiga-	invest.	organis[z]a-	organ.
Japa[o]n-	Jap.	ornit(h)olog-	ornit(h)ol.
journal	J.	outdoor-	
laboratory	lab.	Pacific	Pac.
leaflet-	leafl.	pamf[ph]let-	pam.

libra-	libr.	paper-	pap.
magas[z]i-	mag.	parasitolog-	parasitol.
mammalia-	mamm.	patholog-	pathol.
mammaolg-*	mammal.	pharmacolog-	pharmacol.
management*	manage.	philosoph-	philos.
manua[e]l	man.	physica-	phys.
manufacturing	mfg.	physiolog-	physiol.
marin-	mar.	Pittman-Robertson*	
Master of Science	M.S.	Polish	Pol.
mathemat-	math.	press	
maximum	max.	printer	
medi[e]ca[h][i]-	med.	proceedings	proc.
meeting	meet.	professional	prof.
memoir-	mem.	program*	
memorand-	memo.	progres-	prog.
memorial	mem.	project-	proj.
meteorol-	meteorol.	protection	prot.
method(s)		provincial	prov.
Mex-	Mex.	psycholog-	psychol.
microbiolog-	microbiol.	public	
midland	midl.	publica-	publ.
midwestern	midwest.	publishing company	publ. co.
minimum	min.	quantit-	quant.
minist-	minist.	radio	
miscel-	misc.	range	
monogra-*	monogr.	raptor	
month-	mon.	record-	rec.
morf[ph]olog-	morf[ph]ol.	region-	reg.
regulation	regul.	supplement	suppl.
report-	rep.	survey	surv.
reproduction	reprod.	symposium	symp.
research-	res.	systematic	syst.
resource-*	resour.	technical	tech.
restoration	restor.	technolog-	technol.
revi[u]-	rev.	telemetry	telem.
Russi[k]-	Russ.	toxicology	toxicol.
sanitar[t]-	sanit.	transactions	trans.
scien.	sci.	transportation	transp.
secti-	sect.	vertebrat-	vertebr.
seminar	semin.	veterinari-[y]	vet.
serie-	ser.	volum-	vol.
ser(i)olog-	ser(i)ol.	volunteer	
servi-*	serv.	west*	

society	soc.	western*	west.
southeastern	southeast.	wildfowl	
special	spec.	wild life	
station*	stn.	wildlife	wildl.
statistical	stat.	workshop	
study(ies)	stud.	zoolog-	zool.

^a Words or roots followed by a hyphen indicate >1 word derived from the same root. Letters in brackets can substitute for the letters preceding the bracket(s).

^b Abbreviate “Naturaliste Canadien” as “Nat. Can. (Que.)” and “Nature Canada” as “Nat. Can. (Ottawa).”