

JOURNAL OF ZOO AND WILDLIFE MEDICINE

EDITORIAL GUIDELINES AND INSTRUCTIONS TO AUTHORS

EDITORIAL POLICY (Revised 1 December 2016)

The mission of the *Journal of Zoo and Wildlife Medicine* (JZWM) is to increase knowledge and understanding of captive and free-ranging wildlife species and to improve the husbandry, preventive medicine, and research required to preserve these animals. The *Journal of Zoo and Wildlife Medicine* is the official publication of the American Association of Zoo Veterinarians (AAZV), the European Association of Zoo and Wildlife Veterinarians (EAZV), and the American College of Zoological Medicine (ACZM); and it is supported by the European Zoo and Aquarium Association (EAZA) and the World Association of Zoos and Aquariums (WAZA). The *Journal* accepts manuscripts of original research findings, case series in the field of veterinary medicine dealing with captive and free-ranging wild animals, and brief communications regarding clinical or research observations that warrant publication, including significant single animal case reports. It also publishes and encourages submission of relevant editorials, reviews, special reports, clinical challenges, abstracts of selected articles, and book reviews. The *Journal* is considered one of the major sources of information on the biology and veterinary aspects of zoological species. Areas of interest include clinical medicine, surgery, anatomy, diagnostic imaging, physiology, reproduction, nutrition, parasitology, microbiology, immunology, pathology (including infectious diseases and clinical pathology), toxicology, pharmacology, anesthesiology, and epidemiology. The Editorial Board and its Executive Committee establish editorial policies. The *Journal* is published quarterly, is peer reviewed, indexed by the major abstracting services, and international in scope and distribution.

ETHICAL CONSIDERATIONS

Animal use in research

The AAZV supports the humane care and treatment of all animals. Any experimentation in which animals are subjected to painful or harmful conditions must be justified, and a statement as to an Animal Care and Use Committee's approval (including license number if applicable) should be included in the manuscript. Authors must demonstrate in their papers that the knowledge gained was of sufficient value to warrant the experiment. Questionable manuscripts will not be published in the *Journal*. Authors must be aware of, and adhere to, all laws, treaties and regulations applying to their work.

Authorship

Individuals should be listed as authors only if they 1) made a substantial contribution to the conception and design of the study/work, the acquisition of the data used in the study/work, or the analysis and interpretation of that data; 2) were involved in drafting or revising the manuscript critically for intellectual content; and 3) will have an opportunity to approve subsequent revisions of the manuscript, including the version to be published. All three conditions stated above must be met. Each individual listed as an author must have participated sufficiently to take public responsibility for the work.

For multi-institutional papers, the individual who headed the study should be listed as an author, along with individuals who provided substantial assistance (e.g., with pathological evaluations or statistical analyses) and any other individual who had a substantial impact on the study design or made a unique contribution to the paper. Individuals who submitted case material should be listed as authors only if they contributed at least 10% of the cases included in the study; individuals who contributed less than 10% of the cases should be listed in the acknowledgments. All funding sources should be identified in the manuscript and provided in the Acknowledgment section. Authors should disclose to the Editor any potential conflict of interest, such as a consulting or financial interest in a company, in a manuscript, and state such relationship in the Acknowledgment section. Authors should ensure that no contractual relations or proprietary considerations exist that would affect the publication of information in a submitted manuscript.

PUBLISHING AND EDITORIAL POLICIES

Research reported in the *Journal* must be testable and repeatable by other scientists who are knowledgeable in the field. In addition, there must be due reference to previous work upon which the research depends.

The *Journal* will not accept manuscripts that have been previously published in a refereed scientific journal or proceedings. Oral presentation, use of data in in-house reports, or publication of an abstract of less than 250 words will not preclude the publication of such data in the *Journal*; however note that tables and figures previously published in conference proceedings cannot be used directly. If any copyrighted material is used, a release of copyright must be provided by the Corresponding Author of Record from the Individual/Organization holding the copyrighted material to the American Association of Zoo Veterinarians/*Journal of*

Zoo and Wildlife Medicine before such materials can be published.

Invited papers will be submitted to the same review policies and procedures as contributed papers, and must conform to the Journal's established style and form. The Editor, Associate Editors, and Reviewers judge the suitability of papers for publication in the Journal. Associate Editors, within a given field of specialization, are chosen on the basis of demonstrated expertise and high editorial competence.

SUBMITTING A MANUSCRIPT

Submission

All manuscripts should be submitted via the on-line submission process at Allen Press (<http://jzwm.allentrack.net/cgi-bin/main.plex>) or through www.aazv.org clicking on the "JZWM Manuscript submission" link.

The Journal of Zoo and Wildlife Medicine has a one-time submission fee that must be paid upon submission of the manuscript. Failure to pay may result in the delay of the review of the manuscript. The submission fee schedule can be found in the submission link. The only other charges associated with publication is the charge associated with publishing figures/tables in color. Figures and tables can be in color in print and online or online only for an additional fee (\$75 per figure for online-only color; \$500 per figure for print and online color). Currently, there are no page fee charges for publication.

The type of manuscript (Review, Full Manuscript, Case Series, Brief Communication or Clinical Challenge) should be clearly identified during online submission and in the cover letter accompanying the submission. Companion papers or papers in a numbered series must be submitted together and be clearly designated as such. The author will be notified by email of the receipt of a paper, the Journal manuscript number for the paper, and the Associate Editor to whom it was assigned.

To minimize delays during the pre-review, review and editing processes, authors are encouraged to submit manuscripts that satisfy the parameters of style and content set forth within these guidelines.

The review process

Associate Editors have full responsibility for the review of the papers assigned to them. They select qualified Reviewers (at least two) to whom the paper is sent. The Associate Editors handle most correspondence with the Author and they recommend either acceptance or rejection to the Editor. The Editor then reviews the final manuscript and accompanying documents, makes the final decision on acceptance or rejection, and notifies the author. Associate Editors or Reviewers may not be from the same institution as the author. Reviewers are requested to render their opinions and return the paper to the Associate Editor within 3 weeks of receipt. If the Associate Editor seeks additional advice, the review

process may take longer. Reviewers remain anonymous, unless an individual Reviewer indicates otherwise. Please note that all correspondences, including inquiries regarding manuscript status is made only with the Corresponding Author to avoid miscommunications between Editor/Associate Editor/Journal Staff and Author.

The Associate Editor returns almost all papers that are eventually published in the Journal to the author for revision at least once, sometimes even before reviewers are requested. **Common reasons for revision include failure to follow established style and form; lack of brevity or clarity; questions of fact or theory; poor organization of tabular material; and poor English usage.** Revisions must be returned to the assigned Associate Editor within 60 days or the manuscript may need to re-enter the review process as if it were a new submission.

Final editing to publication

Once a manuscript has been accepted, every effort will be made to publish it promptly. Publication is contingent upon receipt of copyright waiver, which must be returned to the Editorial office following acceptance of the manuscript. The interval from the date the manuscript is received by the Editor to the date of acceptance varies and is dependent on the time required for review and revision. The Journal's goal is to keep the time from original receipt of a manuscript to its publication to 12 months.

The Editorial Office will review the accepted manuscripts one final time for content and style. Journal space is limited and costly, so **brevity will be encouraged** at this stage, if it hasn't already been achieved during the review process. This is the final stage of the process that may involve substantive changes, and it may involve some subjective decisions. Authors are encouraged to review the suggested alterations carefully, but may reject individual recommendations if they provide suitable justification.

Prior to printing, the Author will receive page proofs of articles (also referred to as galley proofs), the accuracy of which is the Author's responsibility. That is, **the author must check the proof "word for word, number for number" against the final manuscript.** The author should also check the margins of the proofs carefully for inquiries from the printer, and should address these inquiries completely. Corrections should be sent electronically. Changes must be annotated on the PDF proof, or marked by hand, scanned, and then emailed to the Editor. In general, further "editing" of the proofs will not be accepted. Corrected proofs, along with a copyright release form, must be emailed to the Editor **within 5 business days of receipt.**

The corresponding author for the manuscript will receive a pdf version of the printed manuscript. Additional reprints can be purchased through Allen Press who will provide order instructions along with the page proofs.

Persons who wish to reproduce information that has been published in the Journal must request written permission from the Editor.

MANUSCRIPT PREPARATION

General

The following guidelines must be followed in preparing a manuscript for submission to the Journal of Zoo and Wildlife Medicine; **manuscripts that are not in the appropriate style or format will be returned, without review, to the Author.** The primary source of information for this document is the CBE Style Manual (6th edition, 1994, Council of Biology Editors, University of Cambridge, Cambridge CB2 1RP, UK).

Use the formatting checklist link on the JZWM submission page to access a formatting checklist for each type of manuscript. This formatting checklist must be used and uploaded as one of the required files for a new manuscript submission. Additional details for formatting can be found below.

Type must be **Roman type** (Times New Roman preferred) **12 point** throughout the manuscript, and **double line spacing** should be used. Text should be **aligned to the left**. Direct formatting of italics and underlining may be used. For scientific names, please italicize the genus and species names. Use the **American form of English** for spelling. ~~Please avoid the use of pronouns such as “we” and “our.”~~ Numbers beginning a sentence should be spelled out. Numbers from one to nine should be spelled, except when placed before a unit and before and after the mathematic signs (e.g., 2 mg/kg, $P < 0.01$, $n = 23$). A space is needed between the number and the unit, except for percentages (e.g., 4 mmol/L, 34%). All pages, starting with the Title Page, and including Literature Cited, tables, and figure captions page, must be numbered in the upper right hand corner, and **sequential line numbers** must be used, ideally on every 5th line.

The **first page** of each manuscript must include, from top to bottom in distinct appropriate groupings, the running head (RH:), title, names of authors with earned academic degrees, complete mailing addresses with institutions (including street address, city, state, zip code/country postal code, and country), and the name, address, telephone numbers and e-mail address of the person to whom editorial correspondence should be sent. The running head (an abbreviated title consisting of no more than 45 characters, including spaces) appears above the title in all capital letters. The **title** of the manuscript is listed entirely in capital letters; abbreviations are not permitted. The title should be as brief as possible, should state the principal finding, and should include the species involved (with scientific name in italicized capitals), when applicable. Author's full names are listed below. Author's degrees (generally only the two highest are listed) should be included following each author's name (e.g., D.V.M., Ph.D.). Diplomat status is indicated using the format: “Dipl. A.C.Z.M.” Author names are separated by commas and


an “and” is placed before the name of the last author. Addresses of authors are given immediately after the list of authors in a new paragraph indented five spaces from the left margin, using the format: “From the...” with author's last names given in parentheses **after** their respective addresses. If any author's present address differs from the original institutional address, it should be listed at the end of the footnote as “Present address (name):...”.

Three classes of headings are used within the text of a manuscript.

Major headings (Introduction, Materials and Methods, Results, Discussion, Conclusions, and Literature Cited) are centered, all capital letters.

First subheadings appear at the left margin on a separate line and are not followed by punctuation. Only the first letter of the first word is capitalized. A blank line separates this heading from its text.

Second subheadings (including Abstract and Acknowledgments) are indented five spaces, followed by a colon, underlined (including the colon) to indicate italics, and separated from text by two spaces. Only the first letter of the first word is capitalized.

The first word of each paragraph is indented five spaces. The maximum length of regular papers is 4000 words. Reviews may contain up to 5000 words, brief communications 1500 words, and clinical challenges 1000 words. For all papers, reviews, and brief communications, the word count includes headings but not Literature Cited. 

Major Manuscript Divisions

Please also review the paragraph on **special formats** for Case Series and Brief Communications, as the use of headings differs.

ABSTRACT

Abstract: The abstract, consisting of no more than 300 words is written as one paragraph, and appears at the beginning of the manuscript on its own page following the title page. The word “Abstract” is indented five spaces, followed by a colon, and underlined (including the colon) to indicate italics, as shown at the beginning of this paragraph. After two spaces, the first sentence begins on the same line. The abstract should be consistent with statements in the paper and, to some extent, may repeat wording in the paper. The abstract must be completely self-explanatory and intelligible in itself and generally should include the following: reason for doing the work, including rationale or justification for the research; objectives and topics covered; a brief description of methods used including number of subjects; results; and conclusions. The abstract also should call attention to new items, observations, and numerical data. Abstracts should be informative. Expressions such as “is discussed” and “is described” should rarely be included.

The abstract should not include bibliographic, figure, or table references. Equations, formulas, obscure ab-

abbreviations, and acronyms are also inappropriate. The scientific name of a species must be included in the abstract when the common name is first mentioned.

Key words: At the end of the abstract, in alphabetic order, list **up to six key words**, that best describe the nature of the report. Key words should include principal species studied (scientific and common names), variables tested, and major criteria of response. The heading "Key words" is indented five spaces, followed by a colon, and italicized. The first letter of the first key word is capitalized; commas separate key words, and a period follows the last key word. Key words are the basis for the Keyword Index, which is published in the last issue of each volume of the Journal.

INTRODUCTION

The word "INTRODUCTION" is in all capital letters and is centered. It appears at the top of the first page following the Abstract and Key Words. The introduction should indicate the justification for doing the research and the hypothesis to be tested or the significance of the case series. Other relevant literature should be cited in the discussion of results. The scientific name of a species must be included in brackets when the common name is first mentioned even if it was also done in the abstract.

MATERIALS AND METHODS

This section title is also in all capital letters and is centered. It follows the Introduction and need not appear at the top of a new page unless this is dictated by the length of the Introduction. Methodology should be given in sufficient detail to permit others to reproduce the study. A clear description of original references is required for all biological, chemical, and statistical procedures. Diets, animals (species, sex, and age), surgical techniques, statistical models, etc., should be described. Commonly used statistical methods need not be described in detail, but adequate references should be provided. The first time any named drug or product is mentioned, it should be followed by parentheses including the manufacturer name, and address (city, state (spell out abbreviations), zip code/country postal code, and country). Examples: detomidine (Orion, 02200 Espoo, Finland; 9 µg/kg i.m.), terbinafine hydrochloride (250 mg tablets, Harris Pharmaceutical, Inc., Fort Myers, Florida 33908, USA; 40 mg/kg p.o., s.i.d. for 30 days). When another drug or product produced by the same manufacturer is mentioned, the address of the manufacturer is omitted.

Methods validation manuscripts should contain several basic principles which are thoroughly discussed in a 2006 review article by Jensen and Kjelgaard-Hansen which should be reviewed prior to submission of a methods validation manuscript. The reference is Jensen AL, Kjelgaard-Hansen M. Method comparison in the clinical laboratory. *Vet Clin Path.* 2006; 35:276–286.

Any in depth **clinical study** should be performed in compliance with the Standards for Reporting of Diagnostic Accuracy (<http://www.stard-statement.org/>).

RESULTS

The results heading is in all capital letters and is centered. It immediately follows the Materials and Methods section, and need not appear at the top of a new page unless this is dictated by the length of the Materials and Methods. Results should be a **concise** account of the important findings, using tables and/or figures where appropriate. The text should explain or elaborate on the tabular data **without unnecessary duplication**, and should be presented in such a way as to allow the reader to interpret the results of the experiment.

The JZWM follows the American Society for Veterinary Clinical Pathology Guidelines for publication of **clinical pathology data** which has a basis in both the Clinical Laboratory Standards Institute Publications and the Standards for Reporting of Diagnostic Accuracy (STARD). These guidelines should be reviewed prior to submission of a manuscript which contains any component of reference interval generation or partitioning, method validation for a species, or detailed clinical studies.

Reference interval manuscripts should comply with several basic principles which are thoroughly discussed in a 2012 review article by Friedrichs et al. The reference is Friedrichs KR, Harr K, Freeman KP, Szladovits B, Walton RM, Barnhart KF, Blanco-Chavez J. ASVCP reference interval guidelines: determination of de novo reference intervals in veterinary species and other related topics. *Vet Clin Path.* 2012; 41:441–453. Guidelines may be freely downloaded at <http://www.asvcp.org/pubs/qas/index.cfm>. Page 27 of this guideline provides a checklist which should be worked through prior to submission. Additionally, the addenda listed in the website provide tables that may be used for data presentation (please refer to Table format guidelines below).

The results of statistical analysis should be consistent with and justify the interpretations and conclusions. The most common acceptable level of probability (alpha values) is $P < 0.05$, although $P < 0.10$, $P < 0.01$, and $P < 0.001$ may be used, if justified. Alternatively, actual alpha values may be used.

Give only meaningful digits. A practical rule is to round so that the change caused by rounding is less than one-tenth of the standard error. Such rounding increases the variance of the reported value by $< 1\%$, so that $< 1\%$ of the relevant information contained in the data is sacrificed.

DISCUSSION

This section title is also in all capital letters, is centered, and follows immediately after the Results. The discussion should interpret (**and not just restate**) the results in the context of other published (and cited)

research. It should also discuss the limitations as well as significance or implications of the findings.

CONCLUSIONS

In most papers, the conclusion is incorporated within the discussion. However, significant conclusions that relate to the objectives and that concisely highlight the most important findings from longer papers *may* be placed in a separate Conclusions section. This section title is also in all capital letters and is centered.

ACKNOWLEDGMENT(S)

Acknowledgment(s): The acknowledgment(s) section precedes the literature citations and follows the Discussion or Conclusion section after two blank lines. The heading (the word “Acknowledgment(s)” is indented five spaces, followed by a colon, underlined (including the colon) to indicate italics (as shown at the beginning of this paragraph), and separated from text by two spaces. Please refrain from using personal pronouns such as “we” and “our.” Contributors and funding sources can be acknowledged in this section. All acronyms should be spelled out. Acknowledgements should be concise and focus on who is being acknowledged, not on what task they performed.

LITERATURE CITED

The Literature Cited heading is in all capital letters and is centered. This heading always appears at the top of a new page.

Authors should ensure that only relevant up-to-date references are used. Literature citations should be identified in the text and tables by a superscript number (that follows concluding sentence punctuation). Do not **cite papers or studies in the text by the author’s name**. When a series of consecutive references (such as 3,4,5,6) are being cited as a group in one place in the text, these can be presented with hyphenated superscripts.³⁻⁶

The literature list must be formatted according to the CBE Style guide (<http://www.lib.washington.edu/help/guides/42CBE.pdf>). Citations should be listed in alphabetic order by first author’s surname. When there is more than one paper by authors whose names appear in the same order in each paper, the papers are listed in chronological order. Papers with multiple authors but the same lead author are arranged together, alphabetically by second, and then by third, author, and each subsequent author.

All citations must have at least one author. In some cases, that author may be the institution that published the work. “Anonymous” cannot be listed as an author (See examples below).

All authors of a cited paper must be listed in the Literature Cited section. Initials only are used for the first and middle names in all citations. Initials are placed after authors’ names.

Names of journals are spelled out if only one word and abbreviated if more than one word. Improperly abbreviated journal names are a common source of

delay in the editing process. The Journal follows the abbreviations of journals used in the National Library for Medicine.

Citations of unpublished work, personal communications, and product inserts are listed in parentheses in the text and do not appear with the Literature Cited. Example: Only few elephants are able to fly (Fowler, pers. comm.). Unpublished data should be cited as (Fowler, unpubl. data).

Articles that have been accepted for publication but have not yet been published should be listed in the Literature Cited section with the designation “(In press)” following the author’s name. Articles that have been submitted but not yet accepted by a journal should be listed as unpublished in the text and should not appear with the Literature Cited.

The list should be formatted using **indentation** of first lines, **1 line spacing** between references, and be double spaced, like the rest of the manuscript.

Examples:

Book — Single Author

Schlesinger WH. Biogeochemistry: an analysis of global change. 2nd ed. San Diego (CA): Academic Press; 1997. 588 p.

Book chapter

Murphy HW. Dangerous animal crisis management. In: Miller RE, Fowler ME (eds.). Zoo and wild animal medicine, Volume 7, Current therapy. St. Louis (MO): Elsevier; 2012. p. 78–85.

Book — Organization as Author

National Research Council, Committee on Protection and Management of Pacific Northwest Anadromous Salmonids, Board on Environmental Studies and Toxicology, Commission on Life Sciences. Upstream: salmon and society in the Pacific Northwest. Washington (DC): National Academy Press; 1996. 452 p.

Proceedings paper

Reichard TA, Ensley PK, Henrick MJ. Pheochromocytoma in a ring-tailed lemur (*Lemur catta*). In: Proc Am Assoc Zoo Vet; 1981. p. 44–45.

Journal Article

(continuous pagination)

~~Mendoza E, Fuller TL, Thomassen HA, Buermann W, Ramirez-Mejia D, Smith TB. A preliminary assessment of the effectiveness of the Mesoamerican Biological Corridor for protecting potential Baird’s tapir (*Tapirus bairdii*) habitat in Southern Mexico. Integr Zool. 2013;8:35–47.~~

Journal Article

(paginated by issue)

Hamilton JB, Curtis GL, Snedaker SM, White KW. Distribution of anadromous fishes in the upper Kla-

math River watershed prior to hydropower dams—a synthesis of the historical evidence. *Fisheries*. 2005;30(4):10–19.

Journal Article, non-English

Dubost G, Genest H. Le comportement social d'une colonie de maras, *Dolichotis patagonum* Z., dans le Par de Branfere. [The social behavior of a colony of maras, *Dolichotis patagonum* Z., in the Branfere Park]. *Z Tierpsychol*. [Mag Animl Psychol]. 1974;35:225–302.

Institution as Author

International Species Inventory System. Physiological data reference values. [CD-ROM] Apple Valley (MN): International Species Inventory System; c2002.

Electronic Journal Article

Moragues E, Traveset A. Effect of *Carpobrotus* spp. on the pollination success of native plant species of the Balearic Islands. *Biol Conserv* [Internet]. 2005 [cited 2005 May 31];122:611–619. Available from doi:10.1016/j.biocon.2004.09.015

Web Site

ActionBioscience [Internet]. American Institute of Biological Sciences; c2000-2005 [cited 2013 May 31]. Available from <http://www.actionbioscience.org/>

Special Formats:

REVIEW PAPERS

Review papers differ from full manuscripts in that they thoroughly review a subject. Reviews are often solicited by the Editorial Board, but may also be submitted spontaneously. Their format is the same as described for full manuscripts, **except** that section titles will vary depending on the subject.

CASE SERIES

Case Series differ from full manuscripts in that they report new or unusual clinical or pathological findings in **a group or series of animals (3 or more)** that are of sufficient importance to warrant publication. Case Series rarely have an experimental format. Their format is the same as described for full manuscripts, **except** that a section titled “Case Reports” replaces the Materials and Methods and the Results sections.

BRIEF COMMUNICATIONS

Brief Communications provide substantive information on research observations or clinical cases. To ensure a high quality of published papers and to play a meaningful role to increase the knowledge of zoological medicine, the JZWM gives special attention to Brief Communication manuscripts that discuss single cases

(n=1). Therefore authors are encouraged to check their manuscript for the following points before submitting.

N=1 Manuscripts will be considered for publication in JZWM if they meet one of the following criteria:

- The clinical case presents a novel diagnostic approach or technique that significantly expands the clinical repertoire for the readership.
- The clinical case presents a novel therapeutic approach, medication or technique that substantially expands the clinical repertoire for the readership.
- The manuscript presents a previously unreported disease process (novel virus, novel parasite, novel pathogenic bacteria, novel metabolic derangement, virus-induced neoplasia, etc.).
- The manuscript contributes significantly to an expanding body of knowledge of an emerging disease (EEHV for example).
- The evidence presented in the manuscript challenges the reader to question the accepted understanding of a disease process. i.e. adds a dimension or raises doubt on existing tenets.
- The report presents clinical information on a taxa that is significantly under-represented in the literature.
- The clinical case presents a common disease that is being reported in an unexpected, novel taxa (West Nile virus in crocodiles, for example).

Brief Communications should include a title page (with author's names, addresses, etc. presented in the usual style), an Abstract (in the usual style) on a separate page with Key Words, and the narrative, which should begin on a new page. The only headings should be “BRIEF COMMUNICATION,” located at the beginning of the narrative, and “LITERATURE CITED,” which should be at the beginning of a new page. Both headings in all capital letters and are centered. The body of the Brief Communication **should not exceed 1500 words** in length (not including the abstract, which **should not exceed 150 words** in length). There should be no more than **three illustrations** (tables and/or figures). Fifteen or fewer references are recommended. Brief Communications are submitted to the same peer review process as other papers.



CLINICAL CHALLENGE

The Journal accepts manuscripts designed to exercise the reader's diagnostic skills as Clinical Challenges. These papers may rely on clinical pathology, diagnostic imaging, gross, or histological data that serves as the “Challenge”. The first section should present the “problem”: or “challenge” (history and initial diagnostics) and end with a comment “Make your diagnosis” or “Make your list of differential diagnoses from this

information before continuing to the next page." A **page break** needs to be inserted. The second section includes any further test results, the final diagnosis, and a short discussion. Figures need to be labeled as belonging to the first or second section. The text of these papers should **not exceed 1000 words** (not including the acknowledgments, figure legends, and references). Ten or fewer references are recommended. **No abstract or key words are required.** Note that these submissions are designed to **highlight a diagnostic process** and do not serve as short case reports.

TABLES

Refer to a recent issue of the Journal of Zoo and Wildlife Medicine for examples of table construction. Whenever possible, tables should be organized to fit across the page (similar to text), so that the page will not have to be turned sideways to read the table.

Tables are numbered consecutively in Arabic numbers;  table is typed **on a separate page**. The title, body,  footnotes should all be double spaced. Tables **should not** be inserted in the main manuscript. ~~Each table must be uploaded as an individual DOC or Excel file.~~ All tables must be mentioned in the main text, e.g., "Table 1".

Titles of tables should be descriptive enough to be able to stand alone. A period follows the title. Every column must have a heading. Vertically typed headings are not acceptable. Only the first letter of the first word of column headings is capitalized. Do not use vertical lines. Emphasize presentation of data in a **simple, straightforward manner**. Do not present the same data in tabular and graphic form.

If an explanation is necessary, use an abbreviation in the body of the table (e.g., ND) and explain in a footnote what the abbreviation stands for (ND = not done, not determined, or not detectable).

References to footnotes in a table are by consecutive superscript lowercase letters beginning with the letter "a" independently for each table.

Standard errors of means or standard deviations (of observations) may be attached to the means by \pm signs, although a separate column or row may be used. If mean separation procedures are used, the preferred statement in the footnotes is "Means in the same column (line) with different superscripts are significantly different ($P < 0.05$)."

FIGURES

~~Figures should not appear in the manuscript file. Figure captions must appear in the manuscript file at the end, after the Literature Cited section.~~ Each figure should be uploaded as a high resolution jpeg or tiff file. All figures must be mentioned in the main text, e.g., "Figure 1". Figures must be of **excellent quality** and high resolution (min. 300 dpi). Figure captions should be descriptive enough to be able to stand alone. Please provide figures in color only if color is desired in print/online or online only. The link to the Journal's Guide to Digital Art Specifications is http://allenpress.com/system/files/pdfs/library/apmk_digital_art.pdf.

In general, most figures (i.e., histopathologic and electron microscopic photographs) should contain letters (a, b, etc.) denoting salient features. Letters should be placed about 1 cm from the edges of continuous tone figures. Photomicrographs should also contain the magnification (or a bar scale) and stain.

Each figure should be identified with an Arabic number. Symbols and abbreviations used in the figure should be defined in the figure caption.

If figures are published in color, there are additional fees: \$75 per figure for online-only color, or \$500 per figure for print and online color. The corresponding author will be billed for these fees at the time of publication of the accepted manuscript.