

**ASSOCIATION OF REPTILIAN AND AMPHIBIAN VETERINARIANS
ANNUAL CONFERENCE PROCEEDINGS 2010**

GUIDELINES FOR AUTHORS

General Information on Submissions

Each speaker is required to submit a manuscript. Submissions will be published in print and electronically in the *Proceedings*, which is distributed to participants during the meeting, mailed to all members of the association, and may be posted online for member access. Membership in the ARAV is not required for submission of manuscripts. The association invites professionals from many different scientific disciplines throughout the world to submit papers. An author may submit more than one manuscript. A paper may not be presented by an individual other than one of the authors and any exception to this rule requires prior approval of the session chairperson. Material presented during the meeting must be based on the same information contained in the submitted manuscript. English is the official language of the proceedings.

The ARAV supports the humane care and treatment of all animals. Any experimentation in which animals are subjected to painful or harmful conditions must have met an Animal Care and Use Committee's approval. Authors must demonstrate in their presentation that the knowledge gained was of sufficient value to warrant such treatment. Questionable submissions will not be published in the *Proceedings* or be allowed to be presented. Authors must be aware of, and adhere to, all laws, treaties and regulations currently applying to their work.

Instructions to Authors

1. The deadline for online submission of manuscripts is 12:00 noon, April 12, 2010.
2. Submissions may be in the form of either a summary-style manuscript (250 words or less), or a full manuscript (no longer than 5 pages in length including tables, figures, and references). Please submit a summary-style manuscript only if subsequent publication in a scientific journal is highly likely. Otherwise submit a full manuscript. An abstract must be included at the beginning of a full manuscript. Papers that exceed the limit will be returned to authors for modification.
3. Submissions should be a concise, factual condensation of information to be presented, accompanied by relevant supporting data; avoid extraneous information. Manuscripts published in the *Proceedings* are not considered full publications by the ARAV and thus, full scientific manuscripts on the same topic are allowed be submitted elsewhere for publication. If you plan to submit your paper to a scientific journal, please check their "previous publication" requirements. The summary-style manuscript (250 words) is allowed by most journals. **If your paper has been published previously, please provide a "reprinted with permission" statement.**
4. Outlines will not be accepted. Papers stating "data will be presented," or "subject will be discussed," will be rejected.
5. Submissions should provide only relevant information. Your audience includes members of the association who may not be in attendance; therefore, all critical information should be provided. Of particular interest are drug dosages, anesthetic regimes, and trade names and addresses of product manufacturers.

Format and Style Specifications

Note: The proceedings format differs from the format of articles published in the *Journal of Herpetological Medicine and Surgery*. An example of a properly formatted *Proceedings* paper is attached below; please pay particular attention to this example. Papers submitted in improper format will be returned to the author.

Format

1. Limit for full manuscripts is 5 pages including all literature cited, tables, and figures.
2. Use single-spaced, 12-point, Times New Roman type.
3. Use one-inch (1") margins on each side, top, and bottom of each page. Text should be full justified (do not use right and left alignment).
4. Do not number pages.
5. Do not use a running title or author's name at the top of pages.
6. All files must be uploaded as a Microsoft Word (.doc or .docx) or rich text format (.rtf) document. Please download the template as an example and modify accordingly.
7. The first mention of an organism in the title and again in the body requires listing of its genus and species (*Iguana iguana*).
8. Title should appear in capital letters at the top of the first page.
9. Names, academic degrees, and current professional affiliations of all authors should be listed below the title at the top of the first page. Periods are not used in the listing of professional degrees or state abbreviations. Numerical superscripts corresponding to current professional affiliations should appear next to each author's name. The name of the author presenting the paper should be identified with an asterisk (*).
10. Manuscript organization differs for each manuscript type (i.e., full manuscript vs. summary-style manuscript). The body of full manuscripts should be divided into subsections as necessary entitled "introduction," "clinical report," "materials and methods," "results," "discussion," "conclusions." For case reports, substitute the subtitle "clinical report," for "introduction," "materials and methods," and "results." Summary-style manuscripts cannot exceed 250 words, need not be divided into sections, are only appropriate for information that will also be published in its entirety in a scientific journal, and must begin with the subtitle "**ABSTRACT**"
11. References should be cited in the manuscript text with superscript numbers and the reference list should be arranged alphabetically at the end of the manuscript. **All references contained in the reference list must be cited in the text.** Citation style is provided in the enclosed example.
12. Tables and figures should fit within a 4×6 inch area when printed and should be embedded into the document. All tables and figures will be edited for style and formatted for publication.

Before submitting, please check spelling, formatting, and grammar. Authors who have limited experience writing in English are encouraged to request assistance with spelling and grammar from colleagues who have extensive experience.

Style

Style specifications for the text of the manuscript should be followed as detailed in the sections below from “Guidelines for Authors” in the most recent issue of the *Journal of Herpetological Medicine and Surgery* (also available on line at <http://www.arav.org/ECOMARAV//timssnet/PDF/hpms-18-03-72-72.pdf>)

Please make sure the paper is as complete as possible because your audience includes people who are not in attendance. Remember that statements such as, “results will be discussed during the presentation,” may result in rejection of the paper.

Measurements should be given in the metric system. Biochemical values should be listed in Systeme International units with conventional units in parenthesis, or on the next line (if in a table). Temperatures should be in Celsius, with Fahrenheit in parentheses.

Abbreviations may be used in the text if the full meaning was previously stated but should not be used to begin a sentence. Standard pharmaceutical abbreviations need not be explained. Numbers less than ten should be spelled out.

Drugs and all other products that are mentioned in the text should be listed by generic or chemical name followed by, in parentheses, trade name, concentration, manufacturer, city and state or country (if other than United States). Doses of drugs should be given in mg/kg or ml/kg (if necessary), not how many milligrams or milliliters were given to an individual animal. Route of administration (abbreviated), frequency of dosage and duration of treatment should be indicated. If known, the ambient temperature at which the animal was maintained during treatment should be listed. For example, 2.5 mg/kg amikacin (Amiglyde V, 250 mg/ml, Fort Dodge Laboratories, Fort Dodge, IA), SC q 72 hr for 6 treatments at 30°C (86°F).

ABSTRACT (all caps and boldface type)

The abstract should be a factual condensation of the entire manuscript, including **purpose, design, findings,** and **conclusions**. It should not exceed 300 words. Most authors find it best to write the Abstract after completing the rest of the manuscript.

Introduction (boldface type)

The introduction should be a short justification of the report based on relevant, previously published information, and a statement of objectives.

Clinical report (boldface type)

This section is used to describe the case findings in a Case Report and is not included in a manuscript that describes scientific research. Provide a clear description of the case including presenting complaint, history, husbandry details, physical exam findings, laboratory data, imaging descriptions, surgical methods, and follow-up. Continue on with a discussion that includes a review of the veterinary medical literature relative to this case or cases and the justification for presenting this case. Conclude with one or two sentences that sum up the important features of the clinical report and its practical implications.

Materials and Methods (boldface type)

Sufficient detail should be presented to permit others to reproduce the study. Provide methods used to obtain each result. Describe statistical analyses. Detailed descriptions are not necessary if the procedures used are properly cited.

Results (boldface type)

Results should be a concise account of the important findings, using tables and/or figures where appropriate. A result should be reported for each of the methods described above.

Discussion (boldface type)

The findings should be discussed, evaluated, or interpreted in the context of other published (and cited) research. Results and discussion may be combined in short reports.

Conclusion (boldface type)

Concluding statements that relate to the objectives and that concisely highlight the most important findings should be presented. A concise, numbered format is acceptable. At the author's option, this section may be included in the discussion.

ACKNOWLEDGMENT(S) (all caps and boldface type)

Include names of non-authors who contributed to the research, the funding sources, grant number, and publication number, if appropriate.

LITERATURE CITED (all caps and boldface type)

Literature citations should be identified in the text and tables by a superscript number and should be listed in alphabetical order of first author's surname. Journal abbreviations should conform to those in the sources recommended in the CBE Style Manual published by the Council of Biology Editors, Inc., Bethesda, Maryland and online at Pubmed Journals Database <http://www.ncbi.nlm.nih.gov/journals>. Formatting is shown in the attached example.

Tables

Tables should be numbered in order and should have titles that are self-explanatory. They should be used for data that are too complex to be included in the text. Tables must be referred to within the body of the paper. Use lowercase superscript letters to identify table footnotes. Identify each table with a bold numeric reference and left justify it at the top of your table (i.e., **Table 1**). Use two spaces to indent after the table reference and write the table caption followed by a period. When possible, use a **table editor** or **tabs** to create tables. Please do NOT use spaces to align the columns of your table. Also, do NOT use the "columns" feature to create tables. Do not insert vertical lines between columns. If there is not enough space left on the page to allow for your table, then end your page before the table and place it on the next page.

Figures

Figures are to be embedded into your document after the tables. Photographs will not reproduce well and are discouraged, though line drawings may be included. Charts and graphs should be formatted in black and white. Include a self-explanatory caption and place it below the figure. Use two spaces to indent after the figure reference, followed by the figure caption (e.g., **Figure 1**. Dorsal-ventral radiographic projection of an adult female green iguana *Iguana iguana* with renalomegaly and demineralized bone.). Figures should be referred to within the text of the paper.

Footnotes: should be avoided, but, if necessary, should appear at the bottom of the page on which they are used and should be identified by lowercase superscript letters.

THE DETECTION OF ADENOVIRUS INFECTIONS IN BEARDED DRAGONS (*Pogona vitticeps*) WITH REAL TIME PCR

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ABSTRACT

Seven bearded dragon species (*Pogona* spp.) exist and several of these are common in the pet trade. Little is known about adenovirus pathobiology in bearded dragons, though infection is reported to be a neonatal disease that is often associated with coinfections of dependovirus and coccidial protozoa. The purpose of this study was to identify the relationships between clinical presentation, presence of adenovirus-like inclusion bodies, and PCR results. Choanal, vent, whole blood and tissue swabs were collected for RT-PCR analysis and formalin-fixed tissues were used for histopathological examination. Samples came from bearded dragons in three different populations. Adenovirus and hepatocyte inclusion bodies were associated with clinical signs of illness in neonates and juveniles, but not in adults. Inclusion bodies were more found more commonly and were more prominent in PCR-positive than PCR-negative bearded dragons. Infected animals that survive will continue to shed virus intermittently throughout life. Transmission appears to be via fecal-oral and fecal-egg routes. PCR appears to be a sensitive and specific method of testing bearded dragons for adenovirus.

Introduction

There are seven species bearded dragons, of which the most common in the pet trade is the inland or central bearded dragon (*P. vitticeps*). In smaller numbers, the common bearded (*P. barbata*) and the Rankin's (*P. henrylawsonii*) have become more widely available and the number of captive-bred animals is slowly increasing. Adenovirus infections have been reported in the common bearded dragon, the Rankin's dragon and the inland bearded dragon.¹⁻³ The purpose of this study was to identify the relationships between clinical presentation, presence of adenovirus-like inclusion bodies, and PCR results.

Methods and Materials

Choanal, vent, whole blood and tissue swabs were taken for real time PCR analysis from a variety of bearded dragons.

Results

All dead or severely weak neonates from the breeding colony with known adenovirus problems were positive on PCR of the choanal, vent and liver swabs, but blood was consistently PCR negative (Table 1).

Discussion and conclusions

PCR appears to be a sensitive and specific method of testing bearded dragons for adenovirus. The results of this study are consistent with previous reports that animals that are concurrently infected with coccidia or dependovirus have more severe illness.^{2,3-5} Vent swabs appear to be consistently positive on PCR in ante mortem samples of infected animals. This finding suggests that fecal shedding of the virus is common in infected animals and vent swabs are the best sample for PCR testing.

LITERATURE CITED

1. Bennett RA, Mader DR. 1996. Soft tissue surgery. *In* Mader DR (ed): Reptile Medicine and Surgery. WB Saunders Co, Philadelphia, PA:287-298.
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3. Landsberger, J. (n.d.). Citing websites. *In Study Guides and Strategies*. Retrieved May 13, 2005, from <http://www.studygs.net/citation.htm>.
4. Lawton MPC. 2000. Reptilian ophthalmology. *Proc ARAV*, 197-202.
5. Schumacher J, Jacobson ER, Homer BL, Gaskin JM. 1994. Inclusion body disease in boid snakes. *J Zoo Wildl Med*, 25(4):511-524.

Table 1. Nutrients, minerals and trace elements of whole snake bodies.

	Average	Standard deviation
Dry matter (% of original substance)	27.4	6.8
Crude protein (% DM)	61.7	8.5
Crude fat (% DM)	16.7	11.9
Crude ash (% DM)	17.8	5.7
Ca (g/kg DM)	14.8	6.7
P (g/kg DM)	39.9	11.1
Sodium (g/kg DM)	8.4	4.0
Potassium (g/kg DM)	10.2	3.9
Magnesium (g/kg DM)	1.8	0.5
Iron (mg/kg DM)	1,869.3	3,644.3
Copper (mg/kg DM)	26.7	29.9
Zinc (mg/kg DM)	254.6	73.3