

August 21,2010

To: AVMA Welfare Committee

I am a veterinarian with field biology training and expertise. I have 17 years of experience in avian medicine in rehabilitation, field research, biomedical research and in private and academic practice settings. I am Board Certified in avian Practice (ABVP (Avian) and a Diplomate of the American College of Zoological Medicine (Avian Subspecialty). I do not agree with multiple aspects in the drafted AVMA Guidelines on Euthanasia, Thoracic (Cardiopulmonary, Cardiac) Compression Section. I thank the AVMA for the opportunity to comment on this issue. I request that Thoracic (Cardiopulmonary, Cardiac) Compression, hereafter TCC, be continued to be listed as conditionally acceptable for small bird species.

1. Regarding the statement “portable equipment and alternate methods are currently available to field biologists for euthanasia of wildlife under field conditions”, I argue that in many remote field locations, where the carcass should be kept intact for future study these methods are not available. Shipping, carrying and receiving drugs (including controlled substances) as well as needles, and syringes, safely, and in accordance with local and international regulations, to remote locations with difficult terrain and poverty can be difficult if not impossible. Airline personnel routinely reject substances based on suspicion, even when appropriately labeled with IATA guidelines. I have concern that veterinarians and other field personnel may risk imprisonment for illegal importation of controlled substances, as well as personal endangerment by local populations, in support of projects based on this guideline change. This especially concerns projects conducted in areas of serious biodiversity loss or with a lack of knowledge regarding species biodiversity in developing countries.
2. Based on my personal experience and a lack of any evidence to the contrary, alternate methods do not cause a more humane death than that currently provided by TCC in small avian species. Avian respiratory anatomy and physiology differs greater from that of mammals; They are not the same. The AVMA presents no data to support its conclusion that this method is inhumane, only references of opinions. Most of these opinions are not from people who are certified in avian or zoological medicine. Other methods including injection or inhalation of controlled and uncontrolled drugs cause additional and stress trauma to the bird, many minutes beyond the 5-10 seconds of this physical method. Most injectable agents cause significant pain and trauma upon injection; They are not more humane. The time to death in my experience, is much greater than 5-10 seconds with either inhalation or injection.
3. Inhalant drugs kill by the same mechanism as this physical method (buildup of CO₂ causes depression of the respiratory center and subsequent brain death), however inhalation takes longer. In addition, if administered improperly, birds can go through an excitatory phase of anesthesia which prolongs these methods. Based on my experience, death by inhalation anesthesia, solely, provides inconsistent results in birds now that halothane is no longer commonly used. Compared with thoracic compression, which can be easily taught and mastered, euthanasia via other methods requires considerable skill and training for appropriate use. I have significant concerns that these methods will be improperly used in the field environment causing increased inhumane treatment of many avian species in remote locations.

4. For multiple types of studies, injectable or inhalant drug use for euthanasia will result in an unacceptable sample (Histopathology, toxicology, hormonal assays). In addition, the other physical methods which are still viewed as accepted (cervical dislocation) will cause unacceptable change in the carcass for further morphometric study.
5. Proper use of drugs in field situations will be impossible in some field situations where temperature or other factors cannot be controlled, resulting in drugs with efficacy or increased toxicity. The disposition of these drugs in carcasses used as museum specimens is unknown. The possibility that they may remain in amounts desired for human abuse in the carcass, or that significant amount may be left in the environment is of severe concern. Recent declines in multiple species of vultures should serve as a cautionary tale that seemingly small amounts of "harmless" drugs introduced into the environment can have serious population decimating consequences, which were unintended. (Meteyer et al. JWD 2005) (Schulz et al. Proc. R. Soc. Lond. B (Suppl.) 2004)(Rhys et al. Journal of Applied Ecology 2004)
6. I assert that all humane alternate methods pollute the environment and cause additional health risks to field biologists and other personnel working with these species. Even small exposures to inhalant anesthetic gas can cause genetic damage (Hoerauf K, Lierz M et al 1999 Occupational and Environmental Medicine) and many injectable agents could easily be inadvertently absorbed when birds are later prepared for museum use. These environmental and human health risks should be carefully considered by AVMA. Should these methods become the standard for field biology studies, the amount of inadvertent drug exposure by personnel with little understanding of their biological or environmental effects is likely to greatly increase as a direct result of this panel's recommendation.
7. Although it has been used extensively in the field, data supporting this method are not available, including degree of distress induced and time to unconsciousness or death. This method's extensive use in the field should be and should have been a sign that AVMA, should it wish to protect the welfare of birds, should further investigate this method. However, that has not been done. Therefore I do not believe at this time that AVMA can abandon this field tested method without scientific evidence that the method is not humane. I am concerned that AVMA is acting based on its member's emotions, many of whom may never have performed this method, rather than based on scientific data in this case. To restate, there is no data, and I advocate that AVMA support research to confirm that this technique is inhumane, while leaving TCC as conditionally acceptable, rather than condemn this technique without knowledge, based on unqualified opinion.
8. There is no data to support the statement: Thoracic compression can result in a substantial pain and distress before animals become unconscious. None of the sources shown provide any scientific data, or source material, to support the conclusion that thoracic compression in small birds is inhumane; they are opinion. One of these sources (Miller 2000) also lists electrocution as an inhumane which the AVMA approves as a humane method of euthanasia. Most concerning is that one of these letters actually listed cervical dislocation as a viable alternative to thoracic compression, when there is clear evidence that the brain suffers pain for greater than 5-10 seconds beyond this procedure (Bates JAVMA 2010).

9. "Recommendations for revision should be supported with information from the scientific literature (please cite specific references) or verifiable practical data." This guideline, for comments on the drafted document, has been followed throughout this comment. However I would argue that the AVMA failed to follow this edict in the creation of the new guideline on thoracic compression. None of the sources listed in support of this proposed revision are peer-reviewed. No verifiable practical data is given.
10. I am an AVMA member and will continue as such after this Euthanasia Guidelines revision. But I have serious concerns for the health of the organization as a whole when we do not support science in areas where data is lacking and animal welfare is at stake. No one is more concerned for avian welfare than I, both at the individual and population levels, and I sincerely hope that this organization will continue, as it has, to promote avian welfare through science and not purely based on special interest group concerns which lack rational supporting evidence.

In summary, I request that AVMA continue to list TCC as a conditionally acceptable form of euthanasia for small birds. But I would further challenge the AVMA to advocate and support studies to provide data on appropriate forms of euthanasia for small avian species which are rational, humane, and practical. I hope that the final decision is not made without scientific basis and which ignores many years of collective field knowledge and experience. All new references listed were appended in the email, please email jheatley@cvm.tamu.edu should you need additional copies.

Sincerely,

J. Jill Heatley DVM MS Dipl ABVP (Avian) DACZM
Associate Professor, Zoological Medicine
Dept of Small Animal Clinical Sciences
College of Veterinary Medicine and Biomedical Sciences
College Station, Texas 77843-4474

Disclaimer: I have written this later based on my personal view. My views do not necessarily reflect those of my employer (Texas A&M University) or those of any organization to which I belong. However I am an active member of the Association of Avian Veterinarians, the American Association of Wildlife Veterinarians and the American Association of Zoo Veterinarians.