



The American Society of Mammalogists
Animal Care and Use Committee

31 May 2013

Patricia A. Brown, V.M.D., M.S.
Director
Office of Laboratory Animal Welfare
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Dear Dr. Brown,

Please accept these comments regarding implementation of the AVMA euthanasia guidelines submitted on behalf of the American Society of Mammalogists. After careful review, the American Society of Mammalogists (ASM) finds that the guidelines are a poor fit for many aspects of field research involving free-ranging wild mammals and will seriously hinder work with these taxa. Difficulties with the revised AVMA guidelines as they relate to free-ranging animals are substantial and have been detailed in comments submitted by our sister society, the Ornithological Council (OC -- a copy of their comments is attached). The ASM is in full agreement with their assessment of the guidelines relative to wildlife research and respectfully request that compliance with the AVMA guidelines *not* be required by PHS policy for studies involving free-ranging animals. We further request that the taxon-specific guidelines published by the American Society of Ichthyologists and Herpetologists, the American Society of Mammalogists, and the Ornithological Council be accepted as appropriate references for euthanasia and for the care and use of wild taxa in research and education.

As they relate to free-ranging wild mammals, the ASM finds that:

- The AVMA guidelines are based largely on human social constructs rather than biologically meaningful distinctions among methods for ending the life animals;
- The AVMA euthanasia guidelines make arbitrary distinctions between methods that are acceptable and those that are considered unacceptable based on

- circumstance or scale of a research study rather than evidence-based differences in the humaneness of methods considered;
- The AVMA euthanasia guidelines are inconsistent with regard to the acceptability of various methods that use same mechanism to bring about death within comparable times;
 - The AVMA guidelines regarding euthanasia by gunshot seem built around the humane killing of domestic animals and are not workable for euthanasia of most free-ranging animals;
 - The AVMA euthanasia guidelines make inconsistent and arbitrary distinctions between euthanasia and “humane killing.”

In the AVMA document, euthanasia is characterized as good disposition resulting from actions by veterinarians to do what is best for the animal. This definition is not compatible with the necessary ending of life of animals in wildlife research. To be fair, the guidelines introduce the concept of “humane killing” and state that some techniques appropriate for wild animals might best be considered humane killing rather than euthanasia, but without further guidance, this distinction is not useful for the wildlife research community or for those reviewing protocols to ensure compliance with the Animal Welfare Act.

Table 2 (pg 68) lists terms used to describe the deliberate ending of lives of finfish as a means of delineating what circumstances constitute euthanasia. The euthanasia guidelines suggest that the killing of fish for large-scale ecological research and open ocean collecting would constitute humane killing, but the killing of similar fish in small-scale ecological research would constitute euthanasia. The reasoning behind acceptance of the ending of lives as humane killing (where the euthanasia guidelines expressly do not apply) in large studies but euthanasia in small studies has no biological justification. Even if such was a meaningful distinction, there is no guidance provided regarding when IACUCs or investigators may consider a study of sufficient spatial scale that the deliberate killing of animals will constitute humane killing rather than euthanasia.

Some methods considered acceptable for euthanasia, including some characterized as acceptable with conditions, cause death by anoxia. Chief among these is CO₂, but the AVMA also finds that certain types of kill traps used for wild mammals “have been scientifically evaluated and found to meet standards for various species” (AVMA pg 40). Examination of the sources cited in this section shows that time to death may be as long as 3 minutes for some of the kill traps and as long as 30 seconds for loss of consciousness with CO₂. Yet thoracic compression, which results in loss of consciousness and apparent death well within these time frames (less than ½ the time of CO₂ and 1/6th the time of some kill traps), was classified by the AVMA as “unacceptable.” At the request of the AVMA, both the ASM and the OC provided statements attesting to the efficacy of thoracic compression for appropriately sized animals and observations of behavioral and physiological changes that were based on the experiences by researchers who had used thoracic compression for many years. The information submitted stated that thoracic compression resulted in apparent loss of consciousness in mammals in fewer than 15 seconds and death in fewer than 30 seconds. The ASM finds no justification for the

classification of some forms of killing by anoxia as acceptable and others as unacceptable when they are faster than the time frame of those methods considered acceptable.

Gunshot is considered an acceptable method of euthanasia, but only if the projectile enters the brain. The skull of a mammal represents especially important archival material because it is highly conserved from an evolutionary standpoint and thus often used to diagnose species differences and to document temporal or spatial changes in body size. Deliberate destruction of the skull during euthanasia diminishes the potential utility of each animal collected. Further, shots directed at the head are not possible or practical in many field situations. The AVMA guidelines allow for shots directed through the spine or heart where headshots are contraindicated, but death by such shots then does not meet the panel's criteria for euthanasia. Equally important, the AVMA guidelines do not address the use of shotguns for the taking of free-ranging animals. For flying and gliding species, many arboreal species, and many smaller terrestrial species, collection by shotgun might be the only viable option. This is especially true for birds where rifles with a single projectile are almost never used.

It is important to note that the AVMA guidelines for euthanasia were not developed with significant input from wildlife biologists and that few of the authors have appreciable field experience or experience using many of the techniques in question. Like the *ILAR Guide for the Care and Use of Laboratory Animals*, the AVMA guidelines became quasiregulatory after passage of the Health Research Extension Act of 1985 and promulgation of PHS policy. During this same time, however, professional societies, who are the acknowledged experts for their taxa, developed taxon-specific guidelines that are specific and appropriate for free-ranging animals. Current versions of these taxon-specific guidelines are authored by 35 individuals who collectively have published more than 1400 articles, most of which involve research with wild animals in their natural habitat. Each of these taxon-specific guidelines list methods of euthanasia that have been used effectively by field researchers in field settings. These guidelines constitute the appropriate references for euthanasia, and indeed for the general use of wild animals in research and teaching.

The ASM acknowledges that options exist for IACUC approved departures from the *Guide* for scientific purposes and for deviations from the AVMA's guidelines for euthanasia. However, such departures would be routine and continuing for many wildlife studies and would necessitate reporting as an approved departure from a "should" statement in the *Guide* on each semi-annual report. This is an unnecessary burden and would be eliminated if taxon-specific guidelines were considered acceptable for compliance with PHS policy for studies involving wildlife species. As you are aware, the National Science Foundation has recently accepted taxon-specific guidelines as appropriate standards for wildlife research in their 2013 Grant Program Guide. The USDA similarly recognizes these guidelines as appropriate resources for wild taxa. Official recognition by OLAW would provide consistency among the regulatory organizations. This action would, in turn, foster consistency in oversight by IACUCs and, most importantly, enhance humane and appropriate use of wild animals in research.

The ASM requests that OLAW seriously consider acceptance of taxon-specific guidelines as acceptable standards for euthanasia and for the use of wild animals in research.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert S. Sikes". The signature is written in a cursive, flowing style with a large initial "R".

Robert S. Sikes

Chair, Animal Care and Use Committee of the American Society of Mammalogists