



Animal Welfare Institute

900 Pennsylvania Avenue, SE, Washington, DC 20003
awionline.org phone: (202) 337-2332 fax: (202) 446-2131

October 12, 2020

United States Department of Agriculture
Regulatory Analysis and Development, PPD, APHIS
Station 3A-03.8, 4700 River Road Unit 118
Riverdale, MD 20737-1238

Re: Docket No. APHIS-2020-0087

Dear USDA Staff:

The Animal Welfare Institute (AWI) appreciates the opportunity to submit comments on the proposed policy, “Research Involving Free-living Wild Species In Their Natural Habitat,” GAO-18-459. We support the Government Accountability Office’s May 2018 recommendations including that: “In developing the definition of field studies, the Administrator of APHIS should provide research facilities with clear criteria for identifying field studies that are covered by the Animal Welfare Act’s regulations and that facilities should report to APHIS as well as field studies that facilities should not report.” As reported, different federal agencies have been interpreting the field study exemption in different ways. Clarity is important, but it is essential that USDA ensures protection of all warm-blooded wildlife (with the exception of those expressly exempted) who will or may suffer harm as a result of actions related to any study.

Activities that Meet the Definition of a Field Study

A field study is said to exclude “*any study that involves an invasive procedure, harms, or materially alters the behavior of an animal under study.*” First, “harm” should be defined. According to most published definitions, pain, injury or disease and/or fear, anxiety and distress constitute harms to animals (Brønstad et al., 2016). Most of the examples of activities that the new policy states as meeting the definition of a field study do, in fact, cause pain, injury, fear and distress. We therefore strongly disagree with many of the examples of activities that are claimed to meet the definition of a field study.

Holding wild animals captive for any period of time constitutes harm as capture, restraint and containment will cause stress and may have an impact on the animals’ health, performance, immune function, reproduction and survival. The policy sets no time limit on how long an animal may be contained, and the conditions within the captive environment (size of enclosure, provision of shelters, opportunities for digging or foraging, etc.) are not described. Relying on a performance standard that actions “do not materially alter the behavior of an animal” are subjective and unenforceable, and

provide ample opportunity for use of the claim as a means to avoid oversight and reporting.

It is not possible to assume that some handling, restraint, capture, and containment can be non-harmful and not materially alter the animals' behavior. Not only does this depend on the species and the specific type of capture, handling, restraint, and containment, but also each individual animal (of the same species and subjected to the same procedure) can be expected to react differently. Potential causes of distress in capture and handling situations include excessive exertion, such as running or struggling, which may lead to physical or physiological changes that could have fatal consequences immediately or at a later time (Jenkins and Kruger, 1973). Pre-existing conditions that may exacerbate stress, such as pregnancy, lactation, social stress, inadequate food and/or water, disease, and environmental factors such as temperature extremes, may decrease an individual animal's ability to deal with the intense and sometimes prolonged stress of being captured. Animals already compromised by such conditions are poor candidates for capture and handling, and their capture should be avoided unless necessitated by the study objectives. Methods selected for handling, restraint, capture, and containment should be reviewed by veterinarians and other specialists given the potential for harm and altering animals' behavior.

The Canadian Council on Animal Care (CCAC) *guidelines on: the care and use of wildlife* state that capture that has the potential to cause injury, holding wild caught animals in captivity, and induction of anatomical and physiological abnormalities that will result in pain are considered to cause moderate to severe distress or discomfort. The latter are considered to be in the highest Category of Invasiveness if performed on wildlife immediately prior to release (CCAC, 2003).

Further, the CCAC guidelines state that even observational studies can cause long-term harm and altered behavior: "*Observational activities may lead to disruption of normal animal activities, whether as part of the study procedure or incidental to it. For example, access to or through sensitive areas (e.g., breeding sites) is disruptive [...] Disturbance of breeding individuals is a significant concern. The impact of observers, the number and length of visits, and other forms of disturbance should be minimized. In addition, reducing the impact on dependent offspring, pair bonds, and breeding behavior should be considered in the timing and locations of the research.*"

We categorically disagree with the categorization of tagging and microchipping as non-invasive. Rodents experienced inflammation and neoplasia from ear tagging (Waalkes et al., 1987) and from microchipping (Blanchard et al., 1999). Horses who were microchipped experienced immediate sensitivity and visible inflammation at the site of the chip for up to three days (Gerber et al., 2012). Guinea pigs, rabbits and woodchucks

experienced swelling around the site of microchips for up to a week (Mrozek et al., 1995). Gray seals who had their flippers tagged experienced swelling, exudate and partially open wounds at the tag site for up to 24 days (Paterson et al., 2011).

Any inflammation and potential infection will compromise the immune system and may lead to physical and physiological changes that could have fatal consequences immediately or at a later time. Special consideration should be given if these types of wounds are inflicted in marine mammals, since these wounds tend to heal much more slowly when they are wet most if not all of the time.

The following scenarios (*italicized below*) do not meet the definition of field study and demonstrate the attention and care required to minimize the harm caused to the wildlife.

Capture and handling of animals with dependent young must be carried out with particular care to avoid interference with parental care (Dudeck et al., 2017) or abandonment.

If animals are trapped, researchers should review the various traps and trapping techniques to ensure that the type used is legal, effective, suited to the species and situation, will minimize stress and injury to the animals, and will minimize capture of non-target species (e.g., Powel and Proulx, 2003; Proulx et al., 2012; Sikes et al., 2011). Investigators should be aware of the specific behaviors, physical sensitivities and bodily requirements of the species they are capturing and make provisions to accommodate these prior to processing and release (e.g., where appropriate, provide food, water, insulation, shelter, shade, etc.). Trapping methods, timing and monitoring frequency must also be selected based on the climatic conditions and efficacy of handling. Animals should be in traps for the shortest possible time, and trapping may need to be avoided altogether during certain weather extremes.

Ideally *use of live lure animals* should be avoided, however, if they are used, justification must be provided to the Institutional Animal Care and Use Committee and care must be taken to minimize the level of stress lure animals are likely to experience (McCloskey and Dewey, 1999).

Handling or restraint of some animals may alter their behavior or predispose them to predation or, if care is not taken, it may lead to major trauma and possible death. If baiting is used for handling and restraint, precautions should be taken to minimize detrimental effects of food conditioning or habituation.

Chemical or physical restraint of wildlife may cause various forms of social disruption (e.g., interfere with territorial defense or breeding), which must be considered in the

planning process of the project. Social disruption is particularly detrimental during breeding, pregnancy, or lactation or during times when dependent young are present.

Restraint is stressful and the risk of significant health effects, including injury and death, increase with the duration of restraint. Investigators must minimize sensory stimuli by handling animals quietly, without sudden movement, and with a minimum of personnel. Placing blindfolds or hoods and earplugs on animals or working in darkened environments may reduce stress, and their use should be considered. If hoods or masks are to be used on animals during restraint, they should be designed to allow monitoring of eye reflexes (e.g., have flaps over the eyes that can be opened) or be removed for monitoring.

Personnel conducting *field sedation and anesthesia* must become proficient in the use of the appropriate aids and have access to this equipment in the field. Investigators should be prepared to administer oxygen in the field, and animals showing signs of hypoxia should be treated with supplementary oxygen.

Invasive procedures include tissue sampling, physical measurements, aging techniques and surgery.

If *blood or tissue samples* are required, care must be taken in determining the appropriate volume of blood, intervals between blood collection, and sampling site for the particular animal and situation. Justification for blood sampling volumes and site selection should be provided to the Institutional Animal Care and Use Committee.

Activities that Do Not Meet the Definition of a Field Study

While we agree with all examples provided of situations that do not meet the definition of a field study, they do not go far enough and are extremely short-sighted and ill-conceived. According to the proposed policy, amputating a whole digit or part of a tail is not considered harmful, unless that digit or tail is used for digging or climbing. Any amputation is painful. Any amputation will affect the animal's activities (including movement, feeding, and attention/response to predators). Pain is known to capture attention and divert it from other actions.

If animals are killed by means that meet the AWA regulatory definition for "euthanasia" then more clarity is needed regarding this definition. USDA no longer relies on the current science on humane killing embodied in the American Veterinary Medical Association's (AVMA) *Guidelines for the Euthanasia of Animals: 2020 Edition* (AVMA,

2020). This change has introduced confusion regarding what USDA is or is not willing to accept, including killing by blunt force trauma and gunshot.

Finally, we suggest that a precautionary principle be applied to protecting wildlife used in research by ensuring that in any such case where harm may be caused, such projects shall not be considered field studies.

Thank you for your consideration.

Sincerely,
Cathy Liss, President
Joanna Makowska, PhD, Laboratory Animal Advisor

References:

AVMA. (2020) AVMA Guidelines for the Euthanasia of Animals: 2020 Edition. Available at: https://www.avma.org/sites/default/files/2020-01/2020_Euthanasia_Final_1-15-20.pdf

Blanchard, K.T., Barthel, C., French, J.E. et al. (1999) Transponder-induced sarcoma in the heterozygous p53+/1 mouse. *Toxicol. Pathol.* 27, 519-527.

Brønstad, A., Newcomer, C. E., Decelle, T., Everitt, J. I., Guillen, J., & Laber, K. (2016). Current concepts of Harm-Benefit Analysis of Animal Experiments - Report from the AALAS-FELASA Working Group on Harm-Benefit Analysis - Part 1. *Lab. Anim.* 50(1 Suppl), 1–20. Available at: <https://doi.org/10.1177/0023677216642398>

CCAC. (2003) CCAC guidelines on: the care and use of wildlife. Available at: <https://www.ccac.ca/Documents/Standards/Guidelines/Wildlife.pdf>.

Dudeck B.P., Clinchy M., Allen M.C. and Zanette L.Y. (2017) Fear affects parental care, which predicts juvenile survival and exacerbates the total cost of fear on demography. *Ecology* 99(1), 127-135.

Gerber, M.I., Swinker, A.M., Staniar, W.B. et al. (2012) Health factors associated with microchip insertion in horses. *J. Equine Vet. Sci.* 32, 177-182.

Jenkins W.L. and Kruger J.M. (1973) Modern concepts of the animals' physiological response to stress. In: *The Capture and Care of Wild Animals* (Young D.E., ed.) pp. 172-183. Capetown ZA: Human and Rousseau Publishers.

McCloskey J.T. & Dewey S.R. (1999) Improving the success of a mounted great horned owl lure for trapping northern goshawks. *Raptor Res.* 33, 168-169.

Mrozek, M., Fischer, R., Trendelenburg, M. et al. (1995) Microchip implant system used for animal identification in laboratory rabbits, guinea pigs, woodchucks and in amphibians. *Lab. Anim.* 29, 339-344.

Paterson, W., Pomeroy, P.P., Sparling, C.E. et al. (2011) Assessment of flipper tag site healing in gray seal pups using thermography. *Mat. Mammal Sci.* 27, 295-305.

Powell R.A. and Proulx G. (2003) Trapping and marking terrestrial mammals for research: integrating ethics, performance criteria, techniques, and common sense. *ILAR J.* 44(4), 259-276.

Proulx G., Cattet M.R.L. and Powell RA. (2012) Humane and efficient capture and handling methods for carnivores. In: *Carnivore Ecology and Conservation*, Chapter 5.

Sikes R.S., Gannon W.L. and the Animal Care and Use Committee of the American Society of Mammalogists. (2011) Guidelines of the American Society of Mammalogists for the use of wild mammals in research. *J. Mammalogy* 92(1), 235–253.

Waalkes, M.P., Rehm, S., Kasprzak, K.S. et al. (1987) Inflammatory, proliferative, and neoplastic lesions at the site of metallic identification ear tags in Wistar [CrI:(WI) BR] rats. *Cancer Res.* 47, 2445-2450.