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Reasoning behind the workshop and its format

Recognition that wild species are a difficult fit within the existing framework for all concerned – oversight bodies, regulators, and investigators

Inform Standing Committee

Inform the many other entities whose purview intersects with wildlife activities

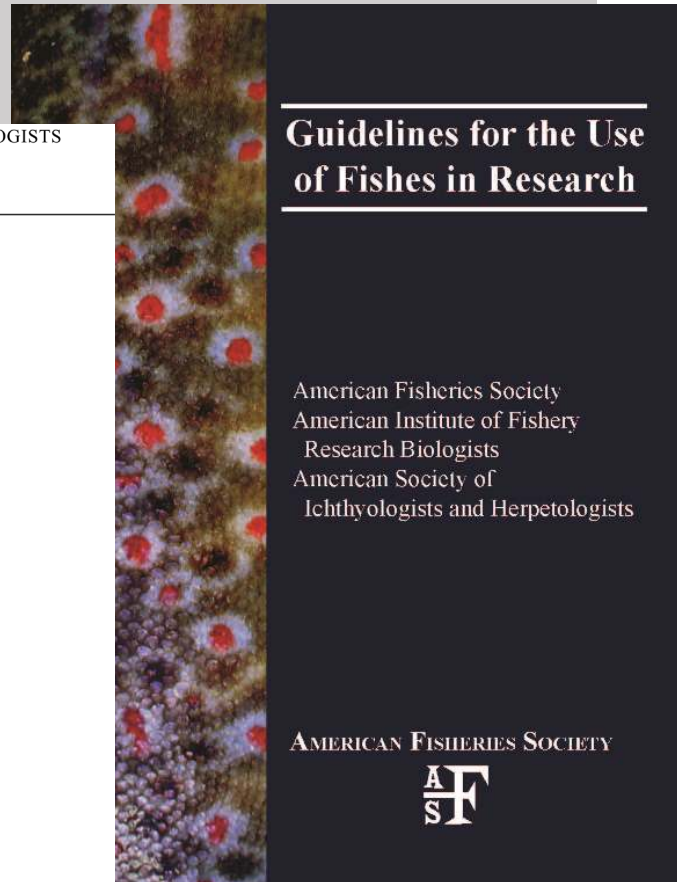
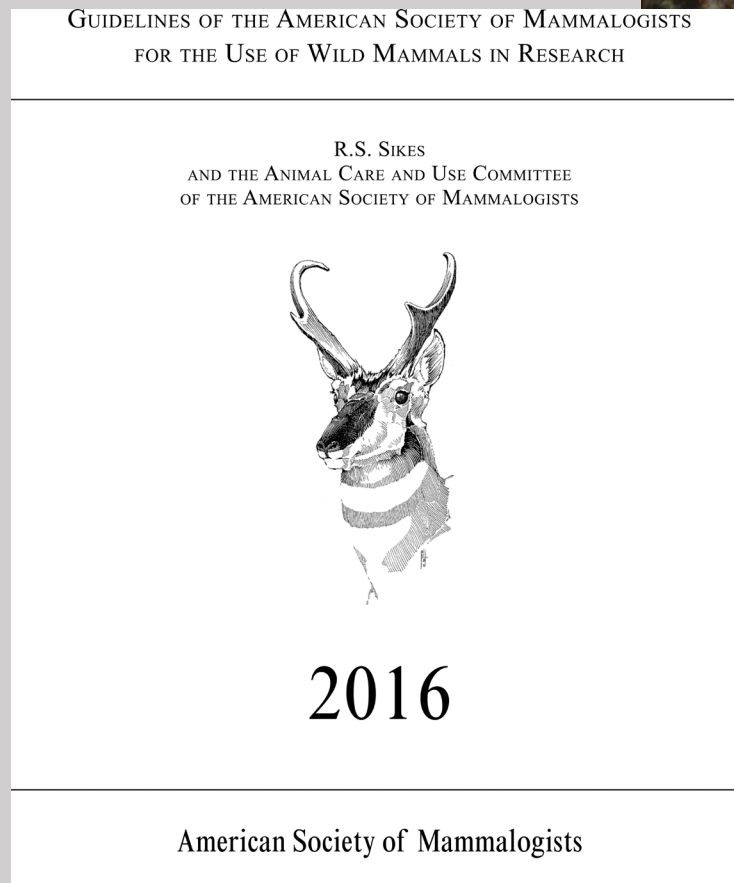
Workshop steering committee felt that the best possible focus would be to identify specific challenges. This approach informs not only the Standing Committee's work, but also informs the many other entities that have some role in regulation or oversight or can provide needed guidance to address the challenges.

Organization of this introductory presentation:

- 1) Workshop format and the general topics of following sessions
- 2) Provide some historical context regarding how we have arrived at this point with regard to the current structure of regulations and guidance affecting wild animals
- 3) Broad overview of the nature of challenges:
 - Animals*
 - Activities*
 - Terminology*

The ultimate goal is to identify not only the challenges, but the various entities and actions that will have some role in addressing the challenges.

Taxon-specific Guidelines





Wolf image – NPS – Public domain

do·mes·ti·cate : to breed or train (an animal) to need and accept the care of human beings : to tame (an animal)

Merriam-Webster Dictionary



Alaska Department of Fish and Game

Number of species that have been domesticated? ~37



Rattus norvegicus – Janet Stephens – Public domain



Mus musculus – Public domain





Diversity of wild taxa



- ~6,466 species mammals (<https://www.mammaldiversity.org/>)
- ~10,550 species of birds (<https://www.pnas.org/content/118/21/e2023170118>)
- ~11,690 species of reptiles (<http://www.reptile-database.org/db-info/SpeciesStat.html>)
- ~8,407 species of amphibians (<https://amphibiaweb.org>)
- >36,000 species of fish
(<https://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>)

>73,113



A few recent headlines.....

Vertebrates on the brink as indicators of biological annihilation and the sixth mass extinction

Gerardo Ceballos, Paul R. Ehrlich, and Peter H. Raven

PNAS June 16, 2020 117 (24) 13596-13602; first published June 1, 2020; <https://doi.org/10.1073/pnas.1922686117>

CBS NEWS *October 7, 2019, 3:17 PM*

Nature up close: The massive decline of bird populations

Bat population decline continues as expected

March 28, 2019

[Minnesota DNR Reports](#)

Nearly half of countries' shared fish stocks are on the move due to climate change, prompting dispute concerns

Date: January 18, 2022

Source: University of British Columbia

REGULATION of ANIMAL ACTIVITIES

Wild animals as a natural resource



"Rath & Wright's buffalo hide yard in 1878, showing 40,000 buffalo hides, Dodge City, Kansas." — National Archives



Regulations and actions to protect or manage populations (**management**)

Wild animals as a research subject



Regulations regarding ethical use and treatment (**research and education**)

Table 1. Chronology of key events relating to the oversight of animal research in the United States (modified from Sikes et al., 2012. Bioscience: 62:830—834)

Date	Event
1953	Institute for Animal Resources (now the Institute of Laboratory Animal Research ILAR]) was established. It was originally intended to develop a procurement mechanism of animals destined for biomedical research.
1963	The first edition of the <i>Guide for the Care and Use of Laboratory Animals</i> was published. It was intended as a standard for animal care in biomedical research.
1966	The Animal Welfare Act, prompted by public outrage over the use of dogs in biomedical research, was signed into law. This Act authorized the US Department of Agriculture Animal and Plant Health Inspection Service to regulate the use of vertebrate animals in research. The initial Act and the subsequent seven amendments were focused primarily on laboratory research.
1986	The Health Research Extension Act and US Public Health Service (PHS) policy on the humane care and use of laboratory animals extended coverage to most vertebrates and linked eligibility for PHS funding to compliance with PHS policy. This policy requires that research be conducted in a manner consistent with the ILAR <i>Guide</i> , which makes the <i>Guide</i> quasiregulatory.
1986	The National Science Foundation and other federal granting agencies voluntarily adopted the PHS policy. The National Science Foundation solicited guidelines from taxon societies because of the absence of information in the ILAR <i>Guide</i> relating to field research.
1987–1988	Taxon-specific guidelines covering the use of wild vertebrates in research were published or revised by the American Society of Ichthyologists and Herpetologists, the American Society of Mammalogists, and the American Ornithologists' Union.



NPS – Public domain

Methods and techniques for capture and handling must fit the species and the situations, from tagging pocket gophers....



....to radio-collaring moose





Collaring wolf near Grand Portage – NPS – Public domain

Euthanasia/humane killing/lethal take

reasons for the death?
species/environment?
in hand or free-ranging?
disposition of the carcass?





Challenges associated with bringing wild animals in captivity include:

- * synchronizing photoperiods and environment
- * providing species-appropriate housing and structure
- * habituation to humans and surroundings
- * meeting nutritional and behavioral requirements
- * appropriate environmental parameters
- * monitoring and data collection without altering species-typical behaviors

These challenges can be minimized only by collaboration across many different entities and organizations.



Thank you!