Canadian Council on Animal Care
Conseil canadien de protection des animaux

Good Animal Practice in Science
Bonnes pratiques animales en science

Canadian Guidelines for Field Research

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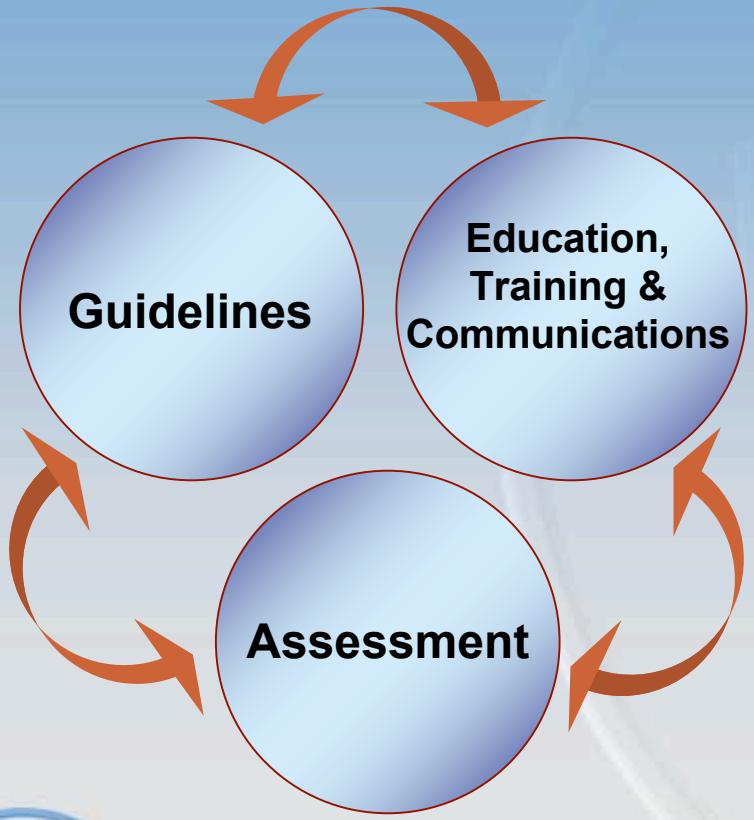
Field Research and Laboratory Animal Science: What Can We Learn from Each Other?
Oslo, May 21-22, 2008

Overview

- Canadian Council on Animal Care
- Guidelines Program
- Ethics of animal experimentation
- Canadian guidelines
- Training
- Conclusion

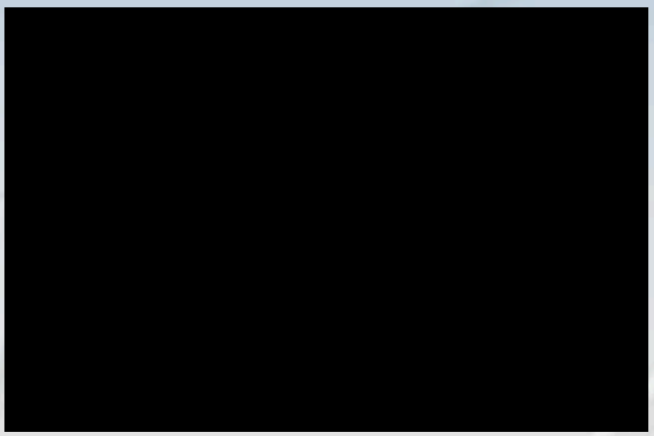
Canadian Council on Animal Care



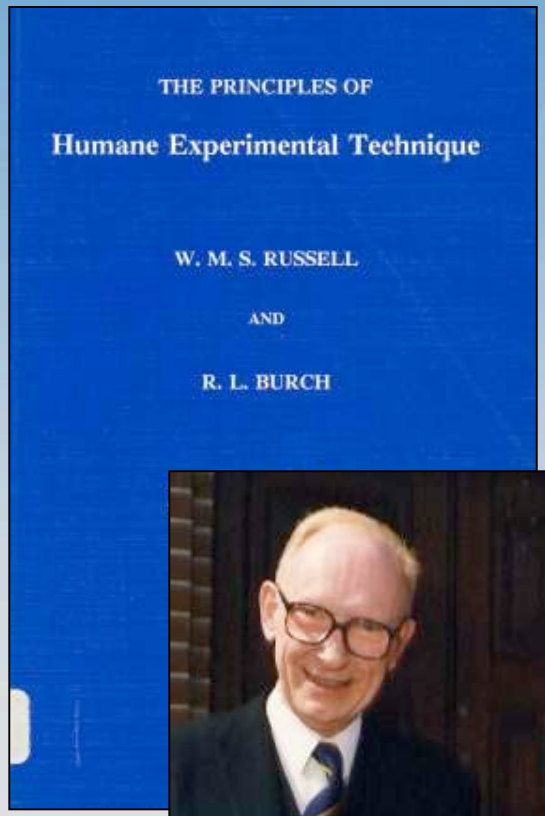
- CCAC is the national organization responsible for setting and maintaining standards for the care and use of animals in science throughout Canada

CCAC Guidelines Program

- Guidelines developed in response to:
  - Current and emerging concerns
  - Advances in animal care
  - Needs of the CCAC Assessment program
- Guidelines based on:
  - Sound scientific evidence
  - Expert opinion
  - Peer review



Three Rs



- The underlying basis of all CCAC guidelines and policies requires adherence to the Three Rs of Russell and Burch
  - Reduction
  - Replacement
  - Refinement

Ethics of Animal Investigation

"The use of animals in research, teaching, and testing is acceptable ONLY if it promises to contribute to understanding of fundamental biological principles, or to the development of knowledge that can reasonably be expected to benefit humans or animals.

Animals should be used only if the researcher's best efforts to find an alternative have failed. A continuing sharing of knowledge, review of the literature, and adherence to the Russell-Burch "3R" tenet of "Replacement, Reduction and Refinement" are also requisites. Those using animals should employ the most humane methods on the smallest number of appropriate animals required to obtain valid information."

Ethical considerations for wildlife use

- CCAC *Ethics of Animal Investigation* applies equally to wildlife use for research, teaching and testing as it does to laboratory animals
- Modification of approach needed in some instances, in particular to balance concern for the individual animals with the concern for the ecosystem

Griffin G. & Gauthier C. (2004) Incorporation of the Principles of the Three Rs in Wildlife Research. *ATLA* 32: S215-219

Replacement

- Replacement by non-animal method
- Replacement with less sentient species
- Replacement of rare or endangered species with more common species
- In the field or in the laboratory

Reduction

- Good study design
- Larger samples than laboratory studies to overcome environmental variation and intrinsic host variability
- Multiple purposes / combine with additional field seasons

Refinement

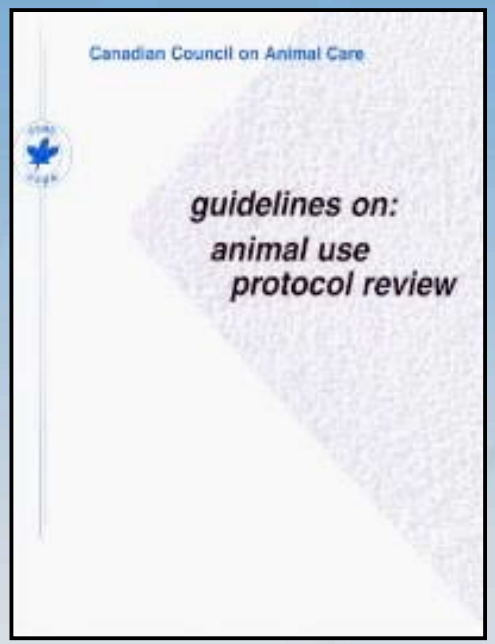
- Ethical drivers
  - Maximizing animal well-being
  - Minimizing pain and distress

Minimizing Pain and Distress

- Investigators frequently adopt practices believed to improve animal welfare based on:
  - anecdotal evidence, unpublished, passed on through informal training

Ethical Review

- All studies involving the use of animals for research, teaching and/or testing should be described within a protocol and should be approved by an ACC prior to commencement of the work



CCAC policy statement on: terms of reference for animal care committees (2000)

CCAC guidelines on: animal use protocol review (1997)

ACCs Must Ensure That:

- Project has merit through peer review
  - scientific merit (research)
  - pedagogical merit (teaching)
  - evidence of evaluation of goals (responsible sustained management, reduction of human hazards)
- Animals needs will be met
- Pain and/or distress will be minimized
- Any animal experiencing unrelievable pain and/or distress will be euthanized

Ethical Review

- Studies in natural habitat require different approaches and procedures than laboratory environment
- Protocols may have to be modified during the experiment, often at short notice
- Report back

CCAC Guidelines

- *CCAC guidelines on: the care and use of wildlife* (2003)
- Species-specific recommendations:
  - Bats
  - Amphibians and reptiles
  - Birds
  - Small mammals
  - Large carnivores
  - Ungulates
  - Marine mammals

- *CCAC guidelines on: institutional animal user training* (1999)
  - Training module on migratory birds

CCAC guidelines on: the care and use of wildlife (2003)

- Introduction
  - ethics of the use of wildlife
  - wildlife regulations
- Field Studies
  - observational research
  - experimental research
- Collecting vertebrates
- Restraint
  - physical
  - chemical
- **Marking**
- Medical/Surgical Procedures
- Moving and Holding
- Husbandry
- Euthanasia
- Human Safety Considerations

http://www.ccac.ca/en/CCAC_Programs/Guidelines_policies/GDLINES/Wildlife/Wildlife.pdf

CCAC guidelines on: the care and use of wildlife

- Based on the work of the American Society of Ichthyologists and Herpetologists (ASIH), Animal Behavior Society (ASB) / Association for the Study of Animal Behavior (ASAB), Ornithological Council (OC) and the Wildlife Society, where relevant to the Canadian context

CCAC guidelines on: the care and use of wildlife

- Canada has a diverse population of wild species, therefore the guidelines are broad and limited to basic principles that will assist investigators, wildlife managers and ACCs in the development and review of protocols and Standard Operating Procedures
- Additional recommendations for the various species groups are under development and will be published on the CCAC website

http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GDLINE/SpeciesSpecificGuidelines.htm

National Institutional Animal User Training Program

- *CCAC guidelines on: institutional animal user training* (1999)
- *Recommended Syllabus for an Animal User Training Program* (1999)
- Resource materials
  - On-line modules for core topics (lab animal based) (2003)
  - Format of other training programs
  - Templates for practical training of fish users (Fisheries and Oceans Canada)

Training

- Investigators and other personnel involved have the necessary training and experience to perform the procedures described in the protocol.
  - CCAC *guidelines on: institutional animal user training*, 1999

Migratory Birds in Research

Animal User Training

CCAC CCPA

Environment Canada
Canadian Wildlife Service

Environnement Canada
Service canadien de la faune

Developed by
Lynn Miller and
Marie-Anne Hudson

Module Goals

- Provide an introduction to the legal, ethical and safety considerations for those who work with migratory birds in research
- Provide a document with reference to specialized resources to help investigators prepare for field work

Please note: This module does not replace hands-on training

Format

- PowerPoint presentation with lecture notes
- English and French
- On-line module for individual training
- Meets CCAC requirements for theoretical training for investigators using wild birds
- Does not replace the need for hands-on training

Conclusion

- Oversight of field studies poses particular challenges to a system designed to oversee animals used in laboratories
- Requires:
  - Competency at the local animal care committee level
  - Solid guidelines
  - Best practice information
  - Training


THANK YOU !!!
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