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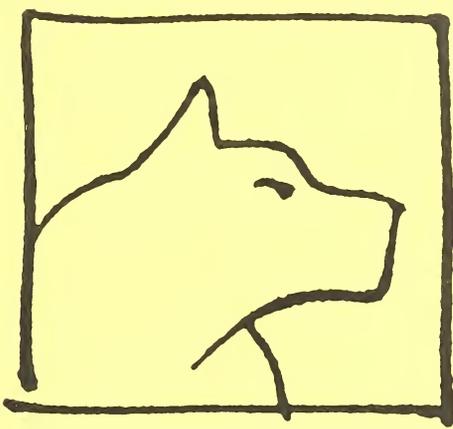
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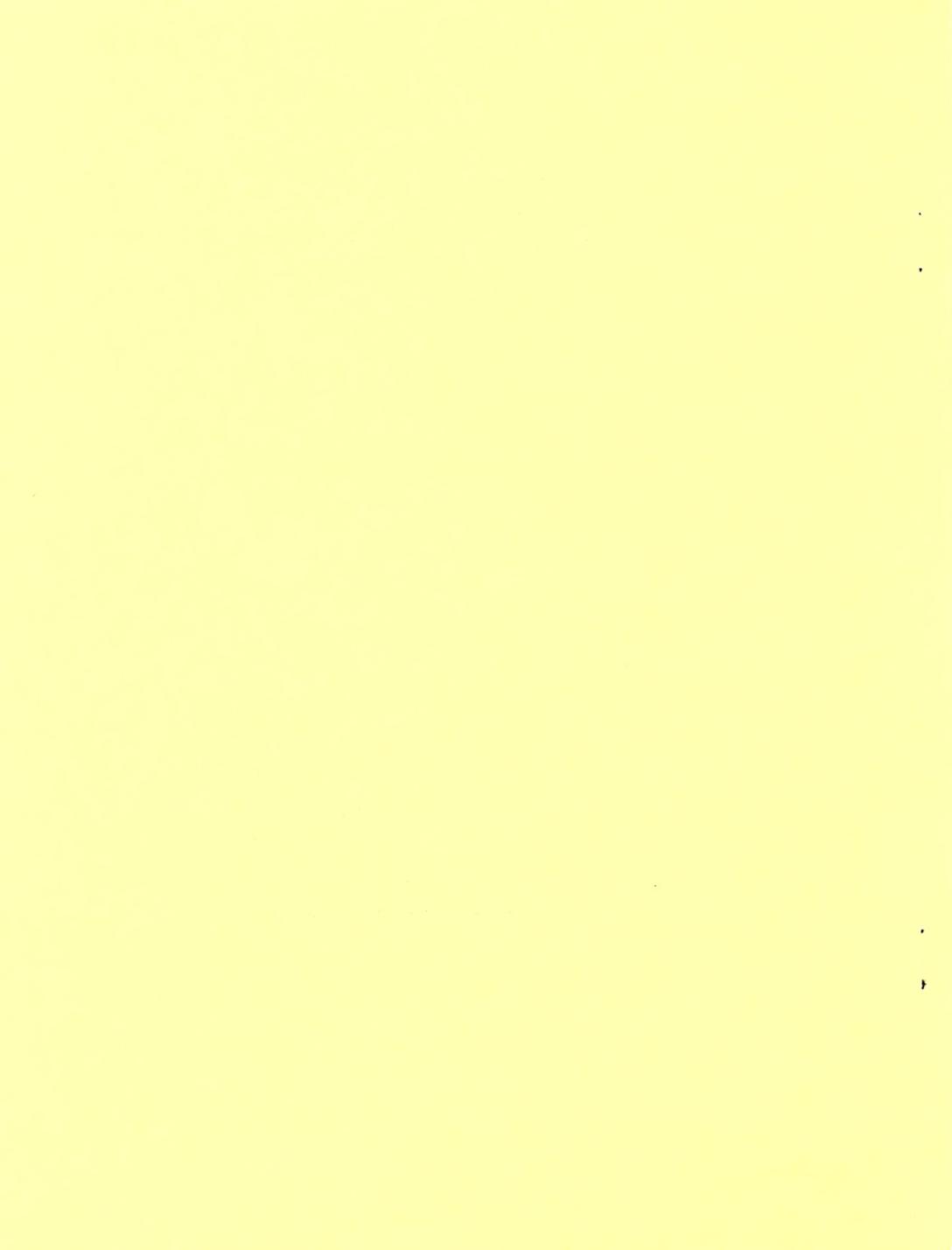
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# Animal Welfare Information Center Scope Notes

AWIC Series #6

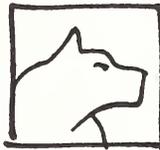




# **Animal Welfare Information Center Scope Notes**

**AWIC Series #6**

**Janice C. Swanson  
Animal Welfare Information Center**



**Animal  
Welfare**

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## ANIMAL WELFARE SCOPE NOTES

The Animal Welfare Scope Notes has been designed as a guide for indexers. Animals to be covered and subject areas are outlined. There is a brief description of each subject area which includes a list of terms and topics that may be encountered. Term and topic listings following each subject area description are provided only as examples and should not be considered inclusive.

### ANIMALS COVERED

All warm-blooded animals used for: experimentation in biomedical research; education; exhibition (e.g., zoos, parks and aquariums); and cold-blooded and/or invertebrate species when used as alternatives. Species may include:

dogs	mice	transgenic species
cats	rats	***marine mammals
rabbits	pigs	horseshoe crab ( <i>alt</i> )
guinea pig	sheep	cold-blooded animals ( <i>alt</i> )
gerbils	goats	simple organisms ( <i>alt</i> )
hamsters	cattle	single celled organisms ( <i>alt</i> )
* non-human primates	horses	fish ( <i>alt</i> )
** captive wildlife	ferrets	birds and poultry ( <i>alt</i> )

*alt* = alternative

### Special Notes:

\* The National Library of Medicine has been charged with indexing information on non-human primates. Index only articles in which proper husbandry, handling, welfare or well-being are the primary topics.

\*\* Captive wildlife includes any animal recognized as non-domesticated and housed in an unnatural setting. Zoos, exhibits, laboratories and parks are all considered captive settings. The Animal Welfare Act covers animals in the above settings. Index only articles in which proper husbandry, handling, welfare or well-being are the primary topics.

\*\*\* Marine mammals include: Whales, dolphins, porpoises, seals, sea lions, walrus, sea otter and manatees. Marine mammals used in exhibition or research are covered by the Animal Welfare Act. Index only articles in which proper husbandry, handling, welfare or well-being are the primary topics.

Notes:



## SUBJECT AREAS

**Alternatives to the use of animals in research, testing and education.** Any method that can be considered to reduce, replace or refine research methods utilizing animals. Also, an in-depth discussion of the appropriateness of an animal model for a particular disease can be important to the use of alternatives. Such methods and terminology may include:

animal model(s)	mannequin (manikin)
animal testing alternative	mathematical models
alternative	organ culture
birds or poultry	reduction (number of animals used)
cell culture	refinement (of techniques)
cold-blooded animal system	replacement (of animals)
computer simulation	tissue culture
cyto-toxic tests	simple organisms
fish	single-celled organism
invertebrates	validation
in vitro (method, model or technique)	

Notes:

**Training and education of:** Animal caretakers or technicians (laboratory, zoo, aquaria, farm); primary investigators; and all relevant personnel who may be responsible for the care of experimental or exhibition animals. Terminology, techniques, and subjects often covered include:

animal health (disease)	management
animal husbandry	methodology
aseptic technique	pharmacokinetics
blood collection (technique)	pharmacology
breeding (reproduction)	protocol
catheterization	restraint
caretaker (technician, handler)	
deprivation (food, water)	safety
feeding (nutrition)	sanitation
handling	technique
injection	trainer
intubation	zoonoses
investigator	zookeeper

Notes:

**Analgesia, anesthesia and euthanasia.** During experimental procedures or routine surgeries performed on animal species for proper care, pain management and control. Topics and terminology may include:

adjuvant (Freund's, etc.)	intra-operative care
analgesics (pain killers, drugs)	neuro-muscular blocking agent
anesthetics	pain (control, relief,
acupuncture	recognition, assessment)
conduction	paralytic (immobilizer)
epidural	paresis
intravenous	preanesthetic
inhalation	tranquilizers
local	anticonvulsant
neurotropic blocking	anticholinergic
dissociative	sedatives
euthanasia (death, sacrifice)	surgery (operation)
agents	presurgical care
drugs	postsurgical care
protocol	
techniques (decapitation, microwave, cervical dislocation etc.)	

Notes:

**Transportation and acquisition of animals.** The proper transport and care of animals while in route, quarantine, health evaluations and regulations governing transport both national and international. Acquisition of animals includes wild capture, pound animals, dealers, trapping, purpose-bred, pet trade, wildlife trade. Terms and topics may include:

acquisition (of animals)	transportation (of animals)
animal shelter	air
auction	in-house
purpose-bred	international
random source (e.g. pounds)	interstate
endangered or threatened species	intrastate
health (care during transport	national
regulations, documents)	rail (train)
licensing	road (vehicular)
quarantine	water (ship)

Notes:

**Humane treatment.** Any article which defines the humane treatment of animals under any number of circumstances.

APHIS (Animal-Plant Health Inspection Service)  
bills (state and federal)  
code of practice (animal related)  
cruelty laws (animal abuse)  
directives (agency, government-wide)  
EC (European Community)  
EEC (European Economic Community)  
guidelines (humane care)  
legislation (local, state, national, international)  
NIH (National Institutes of Health)  
OPRR (Office of Protection from Research Risks)  
PHS (Public Health Service)  
policy (local, state, national, international, institutional)  
public laws  
regulations (local ordinances, state, national, international)  
USDA (U.S. Department of Agriculture)  
CITES (Convention on International Trade of Endangered Species)  
Fish and Wildlife Service  
Marine Mammal Act

Notes:

**Environmental factors affecting laboratory animals.** Physiological and/or psychological problems encountered in different species that are due to environmental factors. Terms that may be encountered are:

aquariums (holding tank)	measurements (lumen, decibels, etc.)
biohazard (hazard)	microenvironment
caging	noise (auditory)
design (of facilities)	oxygenation
enrichment devices	photoperiodicity
environmental enrichment	population density
exercise lots (pens or runs)	psychological well-being
food (delivery systems, quality)	temperature
housing (indoor, outdoor)	toys
humidity	ventilation (air exchange)
illumination (light)	water (quality, chemistry, systems)
macroenvironment	

Notes:

**Animal management.** All information regarding management systems or strategies employed for proper management of a laboratory/zoo/exhibit/aquatic facility. Terms or subjects may include:

- animal identification systems
  - ear punching
  - ear tags
  - dyes
  - microchip
  - tattooing
  - toe clipping
  - banding
- animal procurement
- charting/tracking systems
- computer software (animal management systems)
- field stations
- radiotelemetry
- research protocol management

Notes:

**Institutional Animal Care and Use Committees.** Guidelines established for committees to oversee and evaluate experimental protocols, usage and care of experimental animals. All topics relating to the proper installment and functioning of the committee should be covered. Terms and acronyms often associated with animal care committees may include:

- ACC (Animal Care Committee)
- ACUC (Animal Care and Use Committee)
- FOIA (Freedom of Information Act)
- guidelines
- IACUC (Institutional Animal Care and Use Committee)
- lay member
- open meeting laws (sunshine)
- research protocol (review)
- review board (committee)

Notes:

**Philosophies of animal welfare and animal rights as well as bioethics.** *Human use of animals and the inter-relationship with other elements of the biological world. Book chapters or articles covering ethical view points or moralistic teachings regarding man's relationship with animals. Arguments for or against the use of animals by man for research, food, recreation, companionship etc. should be covered. Much attention is being paid to the human-animal bond. Terms that may be encountered are:*

- animal liberation
- animal protection
- animal rights (philosophy, groups, organizations e.g. P.E.T.A., Animal Liberation Front)
- animal welfare (philosophy, groups, organizations e.g. Scientists Center for Animal Welfare)
- anthropomorphism
- bioethics
- ethics
- human-animal bond (relationships)
- moral(s)
- philosophy
- sentience
- speciesism
- vegan (as it relates to animal welfare/rights)
- vegetarian (as it relates to animal welfare/rights)
- eco-feminism (as it relates to animal welfare/rights)

Notes:

**Animal Behavior or Applied Animal Ethology or Ethology.** *All the terms in this heading deal with the study of the behavior of animals either in their natural state (ethology), in domestication (applied animal ethology) or under laboratory manipulation (behaviorism). Most of the animals used in both food production, biomedical research or as companion animals are gregarious by nature. Many species of marine mammals (e.g., whales and dolphins) are social animals as well. The social behavior of these species becomes important when they are group or singly housed. Parameters such as the age, weight, sex, genetic relationship to other group members becomes important when housing social animals in groups. Likewise the effects of isolated housing or minimal contact housing are important to the well-being of such animals (non-human primates, dogs, rodents, ferrets, livestock, mini-pigs etc.). In order to understand the social infra-structure of these animals detailed studies are made in both natural, semi-captive and unnatural (lab) conditions. Housing/exhibit/aquarium designs and strategies often depend on this type of research to develop facilities that accommodate an animals behavioral needs.*

Other behaviors are also important. Spatial behavior of all species in both a group or single animal situations provides the criteria by which cages, aquariums, exhibits, exercise

yards and pens are designed. Space allotment has often been the point of contention among animal welfare/rights groups and researchers. Space is one of the basic items addressed in laws and regulations covering laboratory, farm and marine mammal facilities. Be sure to look these articles over carefully to establish the link to animal welfare. The following are a list of terms that may help to identify articles that could be relevant:

- abnormal behavior (stereotypies/anomalies)
- adaptive (or adaptation)
- affiliative behavior (grooming, care giving)
- aggression
- agonistic behavior (fights, threats)
- behavior (behaviour)
- cognition
- deprivation (maternal, social)
- developmental behavior (neonatal, ontogeny)
- diurnal patterns (circadian rhythms)
- dominance (rank or hierarchy)
- enrichment
- habituation (adaptation)
- instinctive behavior (inherent)
- investigative behavior (curiosity)
- learned helplessness
- maternal/paternal behavior
- normal behavior
- perception
- preference (tests)
- psychological well-being
- recognition (self, individual, kin, family, item)
- reproductive behavior
- self destructive behavior (self-mutilation)
- social (organization, interaction, facilitation)
- spatial behavior (spacing)
- stress/distress/eustress

Notes:

## TOPICS CONSIDERED NOT IN SCOPE

### Examples

1. When animals are used as the experimental unit but there is little or no discussion with regard to welfare and/or use of the animal as a model.
2. When animals are used for behavioral research that is "Skinnerian" in nature. This research is usually used for making comparisons to learning processes in human beings, is often conducted in elaborate boxes or mazes, and involves animals making a response that is not normally found in their natural repertoire.

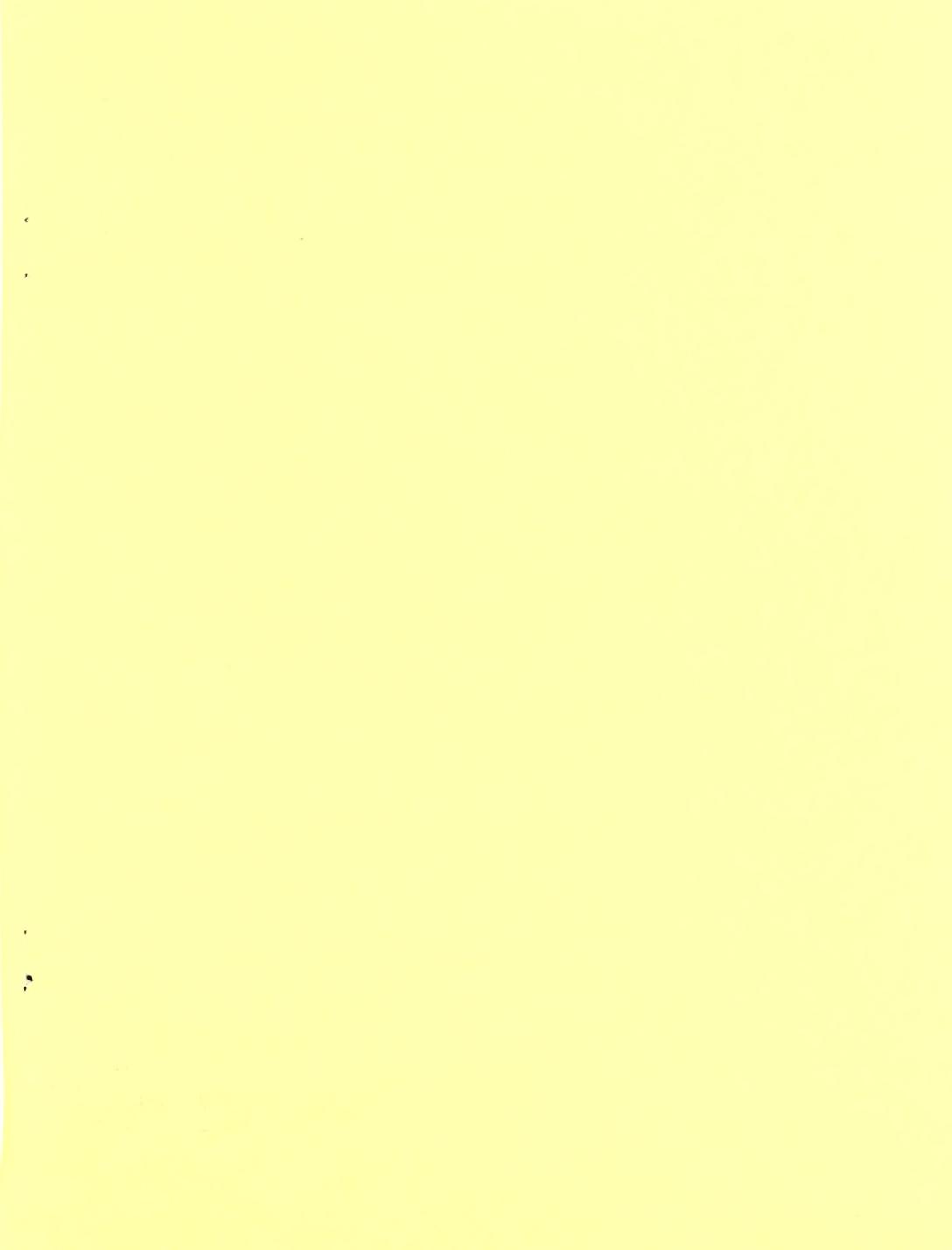
#### *Exception:*

Operant conditioning is being used more frequently to teach animals to relax during a procedure or as a means of exploiting their environment. For example pigs have been taught to stand quietly for veni-puncture because they have been conditioned by receiving a reward of food or drink. Operant techniques help to alleviate stress to the animal and provide a physiological background clear of stress induced responses. Information relating these techniques should be covered.

3. An experimental paper giving data on a disease in non-human primates (e.g. polio in chimpanzees). Disease process papers are covered by NLM.

Notes:





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