



INDIANA UNIVERSITY
OFFICE OF RESEARCH ADMINISTRATION

Social Housing and Environmental Enrichment

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ADDITIONAL DETAILS

Web Address

Effective: 11/28/2012
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Responsible University Officer:
*Fred H. Cate, Institutional Official
Vice President for Research*

Policy Owner:
*Bloomington Institutional Animal Care and Use
Committee*

Policy Contact:
BIACUC Administrator

Policy Statement

Socially-oriented animal species should normally live in groups. Single-housing of social species is a *Guide* exception, requiring scientific justification by the researcher and approval by the IACUC. Single-housed animals (social or not) should receive environmental enrichment that promotes animal well-being. Exceptions to *Guide*-mandated enrichment also require scientific justification and IACUC approval.

Reason for Policy

Federal regulations state that social species should be housed in groups. Social (group) housing promotes basic behavioral needs and contributes to the psychological wellness of many animals. Animal wellness helps to produce quality research with animal subjects. Therefore, single-housing of social species should be the exception and necessitates

justification based on experimental requirements, veterinary-related concerns about animal well-being, or social incompatibility resulting from inappropriate behavior. If/when single-housing proves necessary, housing environments should promote species-typical behaviors and enhance overall animal well-being. Therefore, environmental enrichment (as suggested below) should be offered.

Note: Environmental enrichment is not required for group-housed species. It is typically required for single-housed species, social or not.

Scientifically-justified Guide exceptions:

Social housing and/or the presence of environmental enrichment for single-housed animals (described below) may confound scientific goals in some research. In these circumstances, researchers must provide justification to:

- (1) Allow single housing of a species (social or not) and/or
- (2) Exclude enrichment materials from the housing environment for single-housed individuals.

Requests for exceptions to this policy must be included in the IACUC animal protocol for committee review and action as appropriate.

Per the *Guide*:

Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons or because of social incompatibility. (p. 51) Appropriate social interactions among members of the same species (conspecifics) are essential to normal development and well-being. (p. 64)

The primary aim of environmental enrichment is to enhance animal well-being by providing animals with sensory and motor stimulation, through structures and resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities, and cognitive challenges according to species-specific characteristics. (p. 52-53)

Scope

All personnel involved with animal research in IU-Bloomington animal housing areas.

Procedures

The table below describes standard environmental enrichment for seven of the most common laboratory species (first column). Social (group) species (second column) can be housed in groups without additional environmental enrichment (although environmental enrichment is still encouraged and good experimental design may necessitate it). Single-housed individuals should inhabit enriched environments; appropriate enrichment is described below (third column) and provided by LAR for LAR-managed animals. Additional types of enrichment may also be provided by the investigator (fourth column).

Table of Appropriate and Additional Enrichment

<i>Species (common name)</i>	<i>Group Housing Standards¹</i>	<i>Appropriate Environmental Enrichment Required, if single-housed²</i>	<i>Examples of Additional Enrichment Allowed, if single-housed³</i>
Mice	<ul style="list-style-type: none"> Group-housed, if compatible¹ 	<ul style="list-style-type: none"> Nesting material, such as Enviro-dry 	<ul style="list-style-type: none"> Plastic shelter (Must be cage-washer safe and free of sharp edges), Paper hut
Rats	<ul style="list-style-type: none"> Group-housed, if compatible¹ 	<ul style="list-style-type: none"> Nylabone chew 	<ul style="list-style-type: none"> Elevated platform
Hamsters	<ul style="list-style-type: none"> Group-housed, if compatible¹ 	<ul style="list-style-type: none"> Nesting material, such as Enviro-dry 	<ul style="list-style-type: none"> Plastic shelter, Paper hut
Rabbits	<ul style="list-style-type: none"> Group-housed, if compatible 	<ul style="list-style-type: none"> Sanitizable plastic toys, plastic chain Small portions of alfalfa hay cube, 1 – 3 times/week Food-based treats (hay, vegetables, flavored bunny blocks, etc.) 	<ul style="list-style-type: none"> Small amounts of other fresh vegetables such as spinach, kale, carrots and Romaine lettuce Small amounts of apples or pineapple Hide box
Birds	<ul style="list-style-type: none"> Group-housed, if compatible¹ 	<ul style="list-style-type: none"> Perches 	<ul style="list-style-type: none"> Mirrors, hanging toys Cuttlebone
Xenopus	<ul style="list-style-type: none"> Group-housed, if compatible¹ 	<ul style="list-style-type: none"> Shelter structures such as metal J-feeders or large PVC pipes to allow frogs to hide (Free of sharp edges) 	<ul style="list-style-type: none"> Small amounts of dietary supplements such as blood worms, chopped beef heart, and chopped liver

¹ Group-housing, if compatible (e.g., adult males from different litters of some rodent lines cannot be housed together; males from other lines can be group-housed). Group-housed rodents, per current regulatory directives, do not require additional enrichment. However, such enrichment is still encouraged in general. Good experimental design may or may not necessitate enrichment with group housed animals.

² Appropriate enrichment for individually-housed animals provided by LAR.

³ Additional forms of enrichment may be provided by the investigator.

Sanctions

Failure to comply with IACUC policies may result in non-compliance reports to the Institutional Official, the Office of Laboratory Animal Welfare (OLAW), the U. S. Department of Agriculture (USDA), and/or suspension of animal use privileges. In addition, the availability of sponsored research funds may be affected any time an investigator is found to be in violation of these policies.

Contacts

Subject	Contact	Phone	Fax/Email
Animal housing	Lab Animal Resources	855-2356	LAR@indiana.edu
Policy exceptions	BIACUC Administrator	855-5138	BIACUC@indiana.edu

Web Address for this Policy

<https://research.iu.edu/policies/bloomington-animal-care-and-use.html>
