

# ANIMAL TRANSPORTATION

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## Purpose

Guidelines regarding transportation of research animals are required:

- To protect animals from unnecessary stress or injury;
- To reduce the risk of introducing unwanted wild-rodent contamination to campus rodent colonies;
- For security purposes, and;
- For public health reasons (exposure to animal allergens or zoonotic pathogens).

Specifically, the *Guide for the Care and Use of Laboratory Animals (Guide)* states that, “The process of transportation should provide an appropriate level of animal biosecurity while minimizing zoonotic risks, protecting against environmental extremes, avoiding overcrowding, providing for animals’ physical, physiologic, or behavioral needs and comfort, and protecting the animals and personnel from trauma” (Chapter 4; pg. 107)

## General Points

As a general rule, in-house animal transportation is performed by the Office for Laboratory Animal Care (OLAC), and external transportation is performed by United States Department of Agriculture (USDA)-approved commercial vendors. Exceptions to these rules are allowed, but these must either be described in the Animal Use Protocol (AUP) and approved by the Animal Care and Use Committee (ACUC), or granted on a one-time or limited case-by-case basis by the Attending Veterinarian (AV) or a designee.

The following procedures must be followed when permission has been granted for researchers to transport animals. Investigators who find a recommended procedure to be incompatible with the scientific needs of their research may submit a written request for the ACUC to consider an exception to these guidelines.

**In-house Transportation (e.g., animal transfer from animal facility to lab for euthanasia)****A. Primary container**

1. Transfer animal from standard primary housing to a primary transport container. Standard cages may not be used for this purpose, and must not be removed from the animal facility. This container must be of appropriate size to accommodate the animals comfortably, and have a lid that is perforated or designed to allow air-flow. If the container is to be used more than once, it must be made of a sanitizable material, such as plastic, and sanitized after every use. For transporting rodents, opaque, cardboard, single-use disposable primary cages may be used. These boxes will be supplied by OLAC and stored/available in the animal facilities.
2. For rodents or terrestrial ectotherms, line the bottom of the box with a small amount of fresh bedding or paper towels. If rodents will be in the lab more than a few minutes, provide them with a few food pellets. If animals will be held in the lab for more than an hour, provide water source (e.g. petri dish with water, apple slice). Provide food/water for ectotherms as appropriate for the species and time away from standard housing.
3. Sanitizable plastic buckets are acceptable for aquatics, but must have tight-fitting lids (which need not be perforated) during transport, unless a secondary container is also used.
4. Primary containers must be disposable or cleaned between uses.

**B. Secondary container**

If the primary container is clear, or is obviously an animal transport container, the primary transport container must be covered or placed inside a secondary container that is opaque and completely covers the primary container. This can be a reusable plastic box, or disposable plastic bag.

**C. Cart Use**

Heavy primary/secondary containers, or containers that are difficult to cover, such as buckets, or multiple rat containers, should be transported on a cart. Carts must be clean, free of debris, and disinfected (e.g. with a quaternary ammonia or equivalent) prior to use and upon re-entry into an animal facility.

**D. Temperature monitoring**

Care should be taken to avoid temperature extremes (less than 60°F or greater than 80°F) when transporting any animal, but especially when transporting poikilotherms.

**External transportation** (e.g., animals transported by PI via personal vehicle to another institution or in the course of field research)

Transportation of animals is regulated by the Animal Welfare Act (AWA) for all warm-blooded animals intended for use in research, teaching, or testing, and by the Lacey Act for the transportation of wildlife. As such, PIs should work with OLAC veterinarians to ensure that all planned animal transportation conforms to these regulations and is accurately described in the AUP.

A. Primary and secondary containers/enclosures

Primary and secondary containers/enclosures, as described above, must be used. It is understood that capture of some animals in the field will necessitate transportation while contained in a live trap; however enclosure interiors must have no protrusions that could injure the animals. Commercial rodent transport boxes are ideal for this purpose and can be obtained/purchased through OLAC. These can be placed inside paper bags and discarded on site after arrival.

B. Vehicle

1. Animals must be placed inside the vehicle, never in the trunk or open truck bed. Place the transport containers on the floor of the vehicle, or secure them in a way to avoid falling in the event of a sudden stop. Containers should not be stacked in a manner which may result in their falling.
2. Any personal vehicle to be used for the purpose of transporting animals (on campus or externally) will be subject to semi-annual inspections performed by the ACUC, as well as an initial inspection prior to the start of any work.

C. Temperature monitoring

1. Heating/air conditioning should be used as needed to keep animals' environment within temperature ranges specified in the AWA or as deemed appropriate for that species.
2. Surrounding air temperatures should not fall below 45°F or exceed 85°F for more than 45 minutes.
3. Sufficient shade should be provided to protect animals from direct sunlight.
4. If appropriate, animals should be provided protection to allow them to remain dry.

D. Animal monitoring

1. For short trips, no stops should be made. Animal transit time should be minimized, as well as any delays in receipt of animals.
2. For longer trips, animals must never be left unattended in the car more than a few minutes (e.g., restroom stop). For trips longer than

four (4) hours, animals must be observed as frequently as circumstances may dictate, but not less than once every four (4) hours, to assure that they are receiving sufficient air for normal breathing, their ambient temperatures are within the prescribed limits, and to determine whether any of the animals are in obvious physical distress. Animals should also be offered a source of moisture during longer trips, such as potable water, moist grass, or a piece of fruit/vegetable.

## References

- Animal Plant Health Inspection Service (APHIS). United States Department of Agriculture (USDA). “*Transportation, Sale, and Handling of Certain Animals*” Title 7 Chapter 54. 2009 Edition.
- Committee on Guidelines for the Humane Transportation of Laboratory Animals National Research Council. (2006). *Guidelines for the Humane Transportation of Research Animals*. Washington, D.C.: The National Academies Press.
- Institute of Laboratory Animal Research (ILAR). National Research Council (2011). *Guide for the Care and Use of Laboratory Animals* (8<sup>th</sup> edition). Washington, D.C.: The National Academies Press.
- Departments of the Interior, Commerce, and Agriculture. “Control of Illegally Taken Fish and Wildlife” (The Lacey Act). Title 16 (Conservation), Chapter 53 (16 U.S.C. §§ 3371–3378). 2008 amended edition.