

ANIMAL TRANSPORTATION

Table of Contents

1. [Purpose](#)
 2. [General Points](#)
 3. [In-house Transportation](#)
 4. [External Transportation](#)
 5. [References](#)
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Purpose

Guidelines regarding transportation of research animals are necessary:

- To protect animals from unnecessary stress or injury;
- To prevent the potential spread of contaminants and reduce the risk of introduction of pathogens into established colonies on campus;
- 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)*, Eighth Edition, (Chapter 4; pg. 107) 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”.

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 their designee.

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

In-house Transportation (e.g., animal transfer from animal facility to lab for euthanasia or specialized procedures)

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. The primary transport container must be of appropriate size to accommodate the animals comfortably and have a lid that is perforated or designed to allow airflow. 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 can be obtained/purchased through OLAC.
2. For rodents or terrestrial ectotherms, line the bottom of the transport container with a small amount of fresh bedding or paper towels. If rodents will be in the lab confined to the transport container for 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 for transport, appropriately attached tight-fitting lids are necessary. The lids do not need to be perforated but if perforated, a secondary container must also be used.
4. Primary containers must be disposable or sanitized 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 solution 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 especially when transporting poikilotherms.

External transportation (e.g., animals transported by PI via vehicle to another institution or during 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, 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 or vehicle maneuver. Containers should not be stacked in a manner which may result in their falling.
 2. Whenever possible, university owned vehicles should be used for animal transportation. Use of non-university owned vehicles is discouraged, but may be permitted when the following parameters are met:
 - a) Any non-university-owned vehicle is subject to an initial inspection prior to the start of any work, as well as annual inspections of the vehicle as long as it continues to be used for this purpose. The ACUC may inspect the vehicle more often at their discretion or if any concerns arise regarding the suitability of the vehicle for animal transport. See Appendix 1 for an example of a vehicle inspection form.
 - b) There is a SOP that covers transportation including temperature requirements and an emergency plan. This transportation SOP must be available for inspectors to review at the time of the initial vehicle inspection. EH&S may be consulted during the creation of the SOP if the animals pose a biosafety risk (e.g., bats).

- c) The vehicle is clean and in good condition (e.g., has a functioning climate control system, is legally registered and insured)
- d) Non-university affiliated individuals must not be in the vehicle during transport. Additionally, university individuals in the vehicle must be cleared through the Occupational Health Surveillance System for animal exposure/animal work and permitted to be in the vehicle while animals are present. They must also be listed on the AUP.

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 in regards to the species and the mode of transportation, 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.
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 environmental 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 \(8th edition\)*](#). 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.

APPENDIX 1: Example Vehicle Inspection Form

Animal Transportation via Personal Vehicles

All non-university owned vehicles used to transport animals may be inspected prior to use. Vehicle transport may be approved on a case by case basis.

Name of vehicle owner (please PRINT): _____

Phone number: _____ Email: _____

Protocol Number: _____ PI name: _____

Species to be Transported (check all that apply)

- Laboratory Mouse Laboratory Rat Rabbit
- Fish Amphibian/Reptile Bird

Other (please list) _____

- Vehicle Type:** SUV/Van with internal cargo area Passenger Car
- Truck with separate environmentally controlled cargo area.
- Other (please describe) _____ State and License #: _____

Vehicle Inspection:

- **Air Conditioning:** works/doesn't work
- **Heating:** works/doesn't work
- **Location to prevent animals from being in direct sunlight:** yes/no
- **Location to secure the animals within the vehicle:** yes/no

Please check the following boxes to indicate your understanding and agreement with the requirements below.

- Animals will never be placed and transported in the trunk of the vehicle
- Animals will never be placed in direct sunlight streaming through a window.
- During cold weather conditions, the heater must be used but not blow directly on the animals.
- During hot weather conditions, the air conditioner must be used but not blow directly on the animals.
- Animals must be transported within a secondary container in case they escape from the primary containment.
- Animal cages/containers will not be stacked during transport without having exposed ventilation.
- A spray bottle with OLAC approved disinfectant must be used to disinfect the soles of shoes and the outside of the cage when leaving the supplier's facility.

Transporter's Signature: _____ Date: _____

<i>Inspected by:</i> _____ <i>Date:</i> _____
