

**TITLE: Husbandry of Woodchucks****SOP Category: Husbandry****RUAC SOP #: 3.19****Page: 1 of 6****Effective Date: 6/22/18****Approval: *Lisa Antonucci*****Revisions: 5/4/2021, 3/18/25****SCOPE:**

This document describes the procedures to be followed when caring for woodchucks. This SOP applies to all Animal Care Staff (ACS), ACS Supervisors (ACSS), Veterinary Staff (VS), and Research Staff members (RS) at the Rutgers University facilities.

OBJECTIVE:

The objective is to ensure that woodchuck care and housing is consistent with regulatory guidelines.

PROCEDURES:

Procurement: Currently woodchucks are purchased from a well-established vendor (Northeastern Wildlife Inc. 4825 E Holiday Rd. Harrison, ID 83833) that CMR (Comparative Medicine Resources) has been using for over twenty (20) years.

Receiving

- Upon arrival, Animal Care Tech (ACT) and VS weigh the woodchuck in the carrier and weigh the empty carrier. The difference between the two weights is the woodchuck's estimated body weight (woodchuck's actual weight is taken during quarantine procedures when the animal is anesthetized).
- VS or ACT receiving the woodchucks offers food and water immediately.
- ACT or VS closes and secures the cage with an external lock (special lock) after the woodchuck is safely placed in its cage. Check the external lock to ensure that the lock is securely placed.
- Animal is visually assessed by VS while animal is in its cage, VS assesses parameters such as respiratory rate, mucous membrane color and general demeanor of the woodchuck. VS notes observations in the Laboratory Animal Examination Form.

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Quarantine

VS performs quarantine procedures, three (3) to seven (7) days after receiving animals.

- . Anesthetize animal using the anesthesia procedure (detailed under woodchuck anesthesia below) and documents this in the Laboratory Animal Examination Form.
 - VS does a complete physical exam and documents on the Laboratory Animal Examination Form
 - VS grooms (fur brushed, nails trimmed, teeth trimmed if overgrown).
 - VS collects blood for CBC/Chem and stool for fecal examination.
 - VS administers 0.1ml Ivermectin SQ, to each woodchuck, as a dewormer This may be repeated in 10-14 days.

Housing: - Cage

- Woodchuck's housing is a stainless-steel cage. A Plexiglas boards covers the bottom of the cage to prevent any foot injury.
- Aspen shavings are provided as bedding.
- Cage doors are always closed and secured when a woodchuck is placed back in its cage after removal.
- **External locks are placed on each cage in addition to the normal door latch.**



Space

- Woodchucks are housed on floor area/animal of ~ 4ft² (Cage dimensions W 24inch x L 24inch) and H 16inch.
- Woodchucks are single housed, 1 per cage, past experience has proven wild caught woodchucks are incompatible. Documentation of this exemption from paired or group housing, is signed by a veterinarian and approved by IACUC and placed in the animal's medical record.

Physical environment

Temperature

Optimal temperature 66-70

Expected temperature 62-73

Reportable temperature below 62 or above 73

Report temperatures deviating from the preferred room temperature range to Supervisor / Facility Manager.

Percent Relative Humidity (%RH)

The Guide recommended %RH for rodents is 30-70%

CMR preferred %RH in animal rooms is **40 - 50%**.

Ventilation

The Guide recommended range for rodents is **10-15 AC/Hr.**

Illumination

The light cycle is set to mimic the light cycle in nature. Therefore, the light switch is set by VS once a week with an adjustment to copy the local sunrise and sunset time. Other light cycles may be set for experimental reasons at the request of the investigator (this must be approved in the IACUC protocol).

Light intensity

The recommended light intensity –
3 feet from the floor, is 30-foot candles, 325 lux.

Hibernaculum

- PI staff places animals in the hibernaculum (for experiments approved in IACUC protocols), Remove original cage from rack and place in hibernaculum. Food and water are provided as per protocol recommendation.
- PI staff monitors animals placed in the hibernaculum.
- ACT records hibernaculum temperature and CO₂ levels daily (CO₂ levels should not exceed 1000ppm and temperature should be 35-40 °F).
- PI does animal checks daily.

Husbandry

Animal Care Tech

- Performs daily and records on door sheet.
Washes/ replaces water bowl with fresh water.
Checks feed level and replaces as needed. Feed is Herbivore Diet Pellet #5648.
Check environmental parameters.
Sweeps and mops.
Wipes sink area.
Check's door cage for external locks
- Performs 3 x per week and documents on door sheet.
Changes the bedding three (3) times a week or whenever too dirty.
Gives edible enrichment (removes by end of day)
- Changes the racks once a month. The change date is indicated with a tag on the side of the rack.
- Sanitizing of animal rooms when room is empty or as needed. At the time of sanitation all animals and movable equipment are removed from room. Ceilings, walls, and floors are cleaned.
- Keep room stocked with supplies.

Observations and other procedures

Animal Care Tech

- Check's animals daily (including weekends and holidays) to assess health status of the animals.
- Checks each room daily (including weekends and holidays) for temperature, humidity, and functional lighting. Record the information daily on animal room sheet. ACT clears and resets the thermometers daily.
- Check the cage visually for urine and feces.
- Check the water bowls twice daily (except weekend and holidays).
- Check feed hoppers daily for food consumed.
- Reports any animal(s) not doing well (not eating, drinking, defecating, or urinating, appearing sick) or found dead to VS
- Replaces supplies as needed in the room.

Handling

Proper PPE is absolutely necessary when handling woodchucks. Gown, mask and gloves are worn at all times. Use leather or reinforced gloves when handling woodchucks. These are tall enough to reach over the handler's elbow.

- All personnel handling woodchucks are rabies vaccinated.
- Woodchucks can be taken out of the cage by trapping a wood chuck inside the hut by placing the open end against the wall of the cage.
- The hut is moved to the opening of their nesting hut and taking the nesting hut out of the cage. This allows for least stressful handling technique, which can be used for cleaning cages and other necessary activities where physical contact with woodchuck is not needed.
- In the case when hut is not available, catchpole is used on fully awake chucks. Catchpole is a long stick with a noose (cabled loop) on one end. For safest restraint, place the loop over the woodchucks' head and over one front leg. Minimize the amount of time an animal spends in this restraint., This technique is only for quick catching of the animal to transfer to new cage, to transfer to a carrier or to administer pre-anesthetic injection.
- For any procedures, when woodchucks cannot be safely restrained manually, woodchucks are anesthetized.

Enrichment

Long Term Care

All animals housed in the facility for more than three months receive the following care under anesthesia:

- VS does a complete physical exam (Weight, TPR, SPO2, mm, CRT)
- VS grooms (fur brushed, nails trimmed, teeth trimmed if overgrown).

Woodchuck anesthesia:

Fast animal 24 hours before procedure.

VS

- Administers Ketamine, (50mg/kg) + Xylazine, (5mg/kg) + Glycopyrolate (0.01mg/kg) IM. VT
- Monitor's animal closely until animal regains consciousness.
- Offers food and water when animal is fully conscious.
- Secure cage with secondary lock in addition to latch
- Document anesthesia in animal medical records.