



TITLE: Frog Room Care (Xenopus)

SOP NUMBER: 003

PURPOSE: To provide the highest quality of care of Xenopus frogs; and to prevent the spread of disease that could compromise research studies.

IDENTIFICATION

- A. Holding and individual/experimental tanks will be labeled:
 - 1. PI's name
 - 2. IACUC protocol number
 - 3. Species
 - 4. Number of animals
 - 5. Date of arrival

ANIMAL HEALTH MONITORING

- A. The Principle Investigators, Graduate Students, Undergraduate Students, and/or ACS staff will observe all animals daily.
- B. All animals are observed for signs of illness or changes in behavior and the "Daily Observation Record" is completed. Signs of illness or distress in xenopus include, buoyancy problems, weight loss, dropsy (coelomic distention), bloat, cottony tufts attached to skin, petechial, ecchymoses on the belly, legs, nose, or feet; excessive slime coat mucous production, bite wounds on legs or body, cloudy corneas, hyperemic, distended cloaca, swimming in circles, tilted or upside down, unusual amounts of shed skin in the tank water.
- C. The temperature and relative humidity of the room are recorded daily in the room temperature log. All problems are reported to the ACS Facilities Manager.
- D. The room is checked for operational deficiencies. All deficiencies are reported to the ACS Facilities Manager.
- E. Temperature ranges for Xenopus macroenvironment shall remain between 65 and 75°F
- F. Photoperiod is set at 12:12. Lights are controlled by an automatic wall-mounted timer and lights come on at 2 am and go off at 2 pm. (note: time on/off or photoperiod split may be altered to accommodate specific experiments; signs will be posted with light schedule if it is altered)
- G. Frogs are fed ~2 teaspoons of frog food per the assigned schedule (often 3 times per week).
 - 1. This amount is an estimate; feeding typically breaks down to 3-6 pellets of food brittle per frog.

2. If frogs eat the entire amount within 20 minutes, they will be fed another teaspoon per cage.
- H. Any dead animals are reported to the PI and the ACS Facilities Manager or Veterinarian.

SANITATION/AQUARIUM CHANGES/WATER QUALITY MONITORING

- I. The water levels are checked daily in each aquarium containing frogs.
 1. Frogs may be housed in individual glass or plastic aquaria on the benchtop, the trout tank, or static tank.
 2. Frogs may be housed individually or in the trout tank or static tank (but, care should be taken about what age classes are combined as adult frogs will eat juvenile frogs).
 3. Water depth should be at least 3 inches for aquaria, if less than 3 inches add dechlorinated water to reach the correct depth (unless a shallower depth is purposely used for an experiment).
 - 4.
- J. Water in individual tanks is changed 3 times per week.
 1. Use DI water containing 0.3 g Instant Ocean per liter.
 2. Dirty tanks are washed with white vinegar and DI water and left to air dry.
- K. Use the vacuum siphon to clean the debris from the trout tank if in use, 3 times per week.
- L. For the trout tank as you change the water, wipe down the sides of aquarium to remove any deposits.
- M. Water Quality testing is conducted once weekly.
 1. Parameters include at least: water temperature, pH, NH₄, NO₂, NO₃
 2. Testing is done with commercially available kits (e.g., Tetra EasyStrips, API water drop kits) following the manufacturer's instructions.

OCCUPIED ANIMAL ROOMS SANITATION

- A. Trash is removed daily.
- B. Floors are swept and mopped with disinfectant mixed according to the manufacture's suggestions at least once a week.
- C. Door frames and vents are dusted once a week
- D. Total room sanitation occurs monthly
- E. The Facility and clean aquaria will be sampled within 24 hours of sanitation procedures on a quarterly basis using the SafeStep microbiological contamination monitoring system.

HEALTH CARE

Everyone with access to the animal facility is responsible for informing the University Veterinarian when an animal becomes ill or a change in behavior is noted. Seriously ill animals should be reported **IMMEDIATELY** to the veterinarian. When an investigator, technician, or animal care personnel requires veterinary assistance, they should:

A. Complete the “Animal Treatment/Observation Form” in the Notebook. Indicate the date, room number, animal number/cage ID, and problem observed, and ensure that the name (or initials) of the person making the report is recorded.

B. Contact the University Veterinarian or the ACS Facility Manager at:

Dr. Tiffanie Brooks, ACS Attending Veterinarian
806-834-8588 Office
806-239-2120 Cell

Dr. Paul Stonum, ACS Clinical Veterinarian
806-834-7373 Office
660-562-4425 Cell

Sydnee Woodman, ACS Facilities Manager
806-834-2872 Office
602-758-0670 Cell

C. Provide all the above information to the individual contacted above, who will give advice and authorization for the action(s) that should be taken.