

STANDARD OPERATING PROCEDURES
DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 802.5

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TITLE:	Frog Care and Feeding
SCOPE:	Animal Care Personnel
RESPONSIBILITY:	Facility Manager and Technical Staff
PURPOSE:	To Outline the Proper Procedures for the Care and Feeding of Frogs of the Genus Rana (i.e., Grass, Leopard, and Bullfrogs)

I. PROCEDURES

1. Receiving

- a. Inspect shipping boxes for signs of damage and shipment accuracy.
- b. When frogs arrive, empty box into 6-10 inches of cool water (preferably 50-60 °F) in the sink to wash the frogs free of packing material.
- c. Inspect frogs for any signs of stress, trauma, or mortality that may have occurred while in transit.
- d. All frogs undergo arrival conditioning which entails removing packing material from their skin and soaking frogs in a brine solution for 10 minutes. Mix 16-20 teaspoons of non-iodized salt (NaCl) to 4-5 gallons of carbon-filtered tap water. One tub is used for up to 30 frogs, up to 4" in size.
- e. Frogs arriving with significant health concerns should be isolated from healthy frogs and the facility manager and clinical veterinarian notified.
- f. Cage cards will be made for each animal enclosure to include the following information:
 1. Investigator
 2. IACUC #
 3. Species
 4. Sex
 5. Age/Weight
 6. Arrival date
 7. Source
- g. New animals are recorded on ***Per Diem Sheets*** located in the ***Room Log Book***.

2. Housing

- a. Eye protection must be worn when performing procedures that could result in frog tank water coming in contact with the eyes.
- b. Frogs can be kept temporarily in shallow water (1-2 in.) in aquaria or plastic containers.
- c. Frogs housed for extended periods should be provided with water deep enough that they could float in a natural posture with legs dangling and that permits animal to completely submerge.
- d. Frogs should be housed in the frog tank at a maximum of 25 per tank. Frogs are semi-terrestrial, so a platform or structure must be provided so that frogs can get out of the water.
- e. Since frogs are secretive, structures should be provided in which they can hide.
- f. Frogs should be moved/picked up using a moistened hand or soft net.

- g. Water temperature should be maintained between 65-75 °F.
 - h. Tank water is changed three times a week after feeding.
 - i. Frogs remain inside the tank during the drain, clean, and refill procedure. Tanks are to be cleaned one at a time. Open drain valve located under the tank to allow all the water to drain out. Never use any soap product! Fill tank with filtered water to approximately just below platform level using the filtered water supply.
 - j. Alternatively, when numbers permit, frogs can be moved from one tank to another tank to allow thorough tank cleaning. The dirty tank can then be rinsed and wiped down.
 - k. Room light times: 14 hours light/10 hours dark cycle
3. Feeding
- a. Adult frogs can survive extended periods (3-4 weeks) without feeding if their quarters are kept clean.
 - b. Frogs should be fed three times a week on Monday, Wednesday, and Friday.
 - c. Movement triggers feeding in adult frogs, therefore live food is recommended (e.g., live crickets).
 - d. Four to six crickets per frog, depending on frog size, are placed in the frog tank. Any crickets still unconsumed at the next water change (i.e., the following day) will be removed from the tank.
 - e. Record days that frogs are fed on the **Room Status Sheet**.
 - f. Since crickets are the frogs' sole source of nutrition, they are fed a commercially available cricket diet (e.g., Total Cricket Bites®) in order to meet the frogs' dietary requirements.
4. Water analysis of the frog holding tanks located at ISA are conducted weekly to verify water quality and are performed just prior to the scheduled water change.
- a. Nitrite, ammonia, and chlorine concentrations are determined by commercially available colorimetric tests following the manufacturer's directions.
 - b. Nitrite and ammonia levels should be less than 0.2 mg/l. Elevated levels are indicators that water should be changed more frequently.
 - c. Chlorine level should be less than 0.4 mg/l.
 - d. Water pH should be 6.8 to 7.6 and is determined using a pH test strip.
 - e. The results of all water quality tests are recorded on the **Room Status Sheet**.
 - f. Manufacturer's product inserts and directions for all water quality tests and equipment are kept the **Room Log Book**.
5. Water filtration system filters are changed biannually by contractor, Purification Technologies.

Approved:

Date: