

Standard Operating Procedure for Small Habitat Husbandry of Tree Frogs (*Hyla sp.*)

Purpose

Tree Frogs (*Hyla versicolor*, *Hyla cinerea*, *Hyla chrysoscelis*) for research require increased attention to environmental parameters to avoid stress. Stress in captive frogs can cause skin issues. Attention to husbandry procedures will ensure their health and well-being.

Housing Parameters

1. Tree frogs are housed in a 14 ½” x 8 ¾” x 9 ¾” plastic aquaria tanks, secured with a plastic vented lid.
2. Animal density should be 1-2 tree frogs per tank.
3. Room temperature should be maintained between 70 - 82° F for the comfort of the animals.
4. Humidity within the tank should be maintained between 30 - 50%. Due to room and building conditions, this may be difficult to achieve. If humidity levels are critical to the experimental criteria the frogs should be relocated to an environmentally controlled room.
5. To maintain the humidity in the tank the following misting regimen is followed:
 - a. Mist daily (6 days per week) for 10-20-seconds using the Monsoon misting system or a spray bottle with filtered well water.
 - b. Mist one day a week using system water from 504 (frog room) which is slightly brackish RO water.
 - c. Frogs can be individually misted, but it’s preferable that the environment is the focus.
6. Environmental Enrichment should provide hiding and climbing opportunities. This is achieved by adding any of the following items to the tank:
 - a. Plants
 - b. Vines
 - c. PCV tubes
7. Substrate material is placed in the bottom of the tanks and may vary according to experimental needs. Any of the following materials may be used:
 - a. Paper towels and absorbable pads
 - b. Peat moss, sphagnum moss or any moss material is acceptable. Moss can assist in increasing the humidity. Due to the small tank size mold may develop more quickly.
 - c. Coconut shell bedding, jungle bed or other commercially available substrate is acceptable. Due to the small tank size it may be ingested while catching prey possibly resulting in death.
 - d. Any bark material is also acceptable. Skin abrasions may result while catching prey.Do not use any types of gravel or potting soil. Gravel can be ingested resulting in death. Potting soil has poor drainage and may cause urine toxicity.

Husbandry Procedure

1. Tree frogs are checked daily for health conditions.
2. Frogs are counted daily.
2. Illnesses and injuries are documented on a Vet Care Log and reported to the veterinary staff and the investigator.
3. Tanks, bowls and enrichment are cleaned every 2 weeks.
4. Water bowls are rinsed and refilled at minimum once a week using filtered well water.
5. Potable water is available in a carboy which is refilled as needed.
6. Carboys are cleaned and refilled every two weeks.
7. Room sanitation and maintenance is done according to the room chart posted in the animal room.
8. When transferring frogs to a clean tank or a tank is opened, have a net available to catch any escaped frogs.
9. Sticky traps may be needed in the room to capture escaped crickets.

Feeding Procedure

1. *Hyla sp.* are fed three times a week.
 - a. Every Monday and Friday they are fed 3 crickets per frog (may increase/decrease slightly as needed).
 - b. Crickets should not be any wider than the mouth of the frog – order appropriate sizes.
 - c. Every Wednesday they are fed 3 meal or wax worms per frog (may increase/decrease slightly as needed).

2. All crickets are dusted with a calcium supplement prior to feeding.
3. All worms are placed in a small petri-dish in the bottom of the tank.
4. Do not allow cricket numbers to exceed more than the allotted feeding plus 2 per frog. Crickets can chew on frogs leading to illness or injury.
5. Hand feeding may be warranted using a plastic tweezer if the frogs are visibility thin or not eating well.

Cricket Care

1. Crickets are fed fish flake and given Cricket Quench®, a gel-form water source, as needed.
2. Depending on the amount of crickets, use a petri-dish or a small bowl for the flake and Cricket Quench®.
3. Depending on the crickets needed per week, they are housed in a small reptile carrier or a retro fitted large plastic container.
4. Rotate in clean containers and dishes for new shipments of crickets.
5. Replace paper tubes, egg crates, petri-dishes and bowls as needed for the crickets
6. Watch older shipments for larger crickets that may be too large for the frogs to eat.
7. Place larger crickets in a separate container for removal.

Worm Care

1. Wax worms or meal worms can be stored in a dark, cool, and dry place.
2. Typically they are stored in a refrigerator at 40 - 60° F.
3. Remove dead worms as they are discovered.
4. Worms that pupate will need to be removed before they hatch into beetles.