Care of Amphibians

Live Material Care Guide

Background

Relatively easy to maintain and fascinating to observe, amphibians are great specimens for study in a life science or biology classroom. Since they lack the internal heating mechanism that mammals have, amphibians are cold-blooded. This means their body temperature is never more than a few degrees above the temperature of their surroundings. Amphibians are often confused with reptiles. Amphibians are more aquatic in nature and require different care techniques and require different care techniques than reptiles.

Housing/Feeding

Note: Research the needs of specific species before attempting to care for amphibians. Be aware that some amphibian species will live for years! If you are not prepared for long-term care or are sensitive to humanely killing them (many amphibians are non-native species and even if native, lab animals should never be released into the environment!), then do not bring them into your classroom!

Housing basics for amphibians must include areas of land, water, hiding places, and adequate warmth. Medium to large size, (20–40 gallon) gravel-bottom aquariums work best. Some amphibians require more water than land in their environment, and others require less. For example, certain types of frogs, such as grass frogs, should have only enough water to submerge their bodies. Most newts and salamanders also are primarily aquatic, but need access to some land. In all cases water should be dechlorinated. However, do not use distilled or deionized water. Fresh aged water, such as clean pond water, spring water, or chlorine-free tap water works best for culturing amphibians. It is important to clean the water frequently (1–2 times per week) by removing 50–80% of the old water and replacing if with fresh aged water, or to have a filtration system in the aquarium. Aquarium plants are important because they not only keep the water oxygenated but also provide hiding areas. Provide a "cave" or other hiding area on the land portion of the aquarium. Artificial heat is not needed for most amphibians. Keep the aquarium at warm room temperature (low- to mid-70's °F) and out of direct sunlight. If the aquarium has a light, make sure that it is not overheating the water. It is important that the aquarium has a sturdy, well-ventilated lid, since many species are remarkable jumpers!

Although some species require specific diets, amphibians generally eat live insects such as mealworms, small crickets, earthworms, and *Daphnia* or brine shrimp. Some will accept dead insects if they are placed on a stick and dangled or dragged in front of the amphibian. Some salamanders will eat raw beef that has been cut into small strips. Remove uneaten food to prevent fouling of the water.

"Red leg" is a fairly common bacterial infection seen among captive frogs. Infected frogs tend to be inactive and have a distinctive, patchy red coloring on their underside and near their legs. Newts and some species of frogs are susceptible to fungal infections. The fungus appears as a white fluff around the tailbone, occasionally spreading to other sites on the body. All sick amphibians should be isolated to avoid infecting others. Adding 3–5 mL of water saturated with sea salt to the sick amphibians's environment may help reduce infection. If the problem persists, a specialized veterinarian or pet store should be consulted for help.

Disposal

Please consult your current *Flinn Scientific Catalog/Reference Manual* for general guidelines and specific procedures, and review all federal, state and local regulations that may apply, before proceeding. Deceased amphibians may be disposed of according to Flinn Suggested Biological Waste Disposal Method Type IV. Never release animals into the local environment. Many are invasive. Some may harbor pathogens to the local habitat.

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Tips

- Frequent handling of amphibians is not recommended. Their skin is permeable to salt and oil and contact with human skin may be very irritating. Also, many toads secrete low levels of poison though their skin. Thoroughly wash hands with soap and water after handling amphibians.
- Never pick amphibians (or other animals) up by their tails or legs. Support the amphibian firmly (without squeezing) in the palm of your hand, with your fingers wrapped securely around its body to prevent it from escaping.
- Have a damp rag available when handling amphibians. If an animal gets free, drop the rag over it to make recapturing easier.
- A common misconception is that amphibians need an artificial heat source. Overheating can be detrimental to the health of amphibians.
- The size of the aquarium/terrarium will determine the number of similar species of amphibians that should be placed together. A general rule of thumb is no more than two/ 10 gallons.
- Do not intermix species of amphibians.

Materials for *Care of Amphibians* are available from Flinn Scientific, Inc.

Catalog No.	Description
LM1171	Grass Frogs, 12
LM1168	Eastern Newt
FB0513	Plastic Animal Cage
FB0278	Aquarium Kit, 10-gal.
FB0283	Aquarium Screen Cover
FB0261	Aquarium Gravel
LM1212	Aquarium Plant Set
LM1112	Mealworms, 30
LM1164	Crickets, 50
LM1103	Earthworms, 30
LM1109	Daphnia, large, 30

Consult your *Flinn Scientific Catalog/Reference Manual* for current prices.