

(Rana catesbeiana)

Genus: Rana Family: Ranidae Order: Anura Class: Amphibia

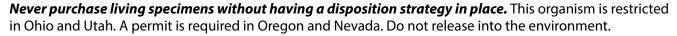
Subphylum: Vertebrata **Phylum:** Chordata **Kingdom:** Animalia

Conditions for Customer Ownership

We are a USDA compliant facility and hold all necessary permits to transport our organisms. Each state is assisted by the USDA to determine which organisms can be

transported across state lines. Some organisms may require end-user permits. Please contact your local regulatory authorities with questions or concerns. To access permit

conditions, click here.



Primary Hazard Considerations

This organism is restricted in Ohio and Utah. A permit is required in Oregon and Nevada. Do not release into the environment.

Availability

- Bullfrogs and bullfrog tadpoles are available year round. Adult bullfrogs are collected in the wild and bred in captivity. Captive bullfrogs are raised for the food industry. Bullfrog tadpoles are strictly collected in the wild. •
- Adult bullfrogs will arrive in a waxed cardboard box with foam inserts placed inside for protection. Tadpoles will arrive in a plastic bag with water. We over-pack each order of bullfrog tadpoles. It is normal to have some deceased tadpoles in the container. You will receive at least the quantity of live tadpoles stated on the container. They can live in their shipping container no longer than one day due to build up of wastes and depletion of oxygen. When you receive your tadpoles, take the bag and float it for 30–45 minutes in the aquarium in which the tadpoles are to be housed, to allow them to acclimate to the temperature of your aquarium water. After the time has elapsed, you may release the tadpoles into their new habitat. If your tadpoles are cold when you receive them, their movement will be very slow or nonexistent. This does not indicate poor health; they will behave normally once they adjust to a higher temperature. Once the tadpoles are acclimated, carefully cut open the bag and release them into the aquarium. Immediately upon arrival you should place your bullfrogs or tadpoles into a new home.

Captive Care

Tadpole Habitat:

- Set up a clean aquarium with de-chlorinated tap water. This can be accomplished by adding a dechlorinating chemical (such as Fluval® Aquaplus 470308-824) or by aerating the water for 24 to 48 hours before you add the tadpoles to the aquarium.
- The temperature of the tank should be maintained at a consistent level between 18–23°C (60–74°F). Avoid any drastic changes in the water temperature, which will stress the tadpoles, making them more prone to illness. Keep the tadpoles out of direct sunlight and away from heaters.
- An artificial light can be added above the tank; we recommend a fluorescent light source. The duration of light should be regulated to mimic some kind of a night and day pattern.

- In ideal conditions the aquarium should be equipped with an air stone attached to an air pump and a filtration system to remove waste material. However, tadpoles can survive with just an air stone if a proper water change schedule is maintained.
- Use aquarium gravel (470005-160) as substrate, and you can decorate the tank with plants for hiding (live plants can serve as a natural food source).
- We recommend a minimum of 10 gallons for 12 tadpoles.

Care:

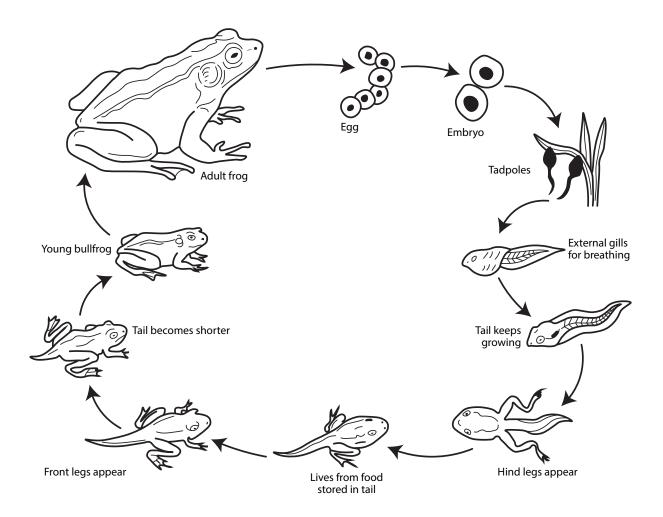
- Fish flakes and tadpole pellets are recommended for feeding the tadpoles. Feed once a day, but only as much as they can consume in ten minutes. Do not overfeed.
- A 25% water change should be performed each week to help maintain appropriate chemical levels in the tank. Replace 30–50% of the water if it appears foggy or there are leftover food remains either floating or at the bottom of the tank. A filtration system will reduce the need for large water changes, and will help to maintain a balance in your aquarium.

Habitat for Bullfrogs:

- Bullfrogs require a slightly different type of environment than tadpoles, although much of your aquarium can remain the same.
- The filtration, aeration, and light source subjections from the "Habitat for Tadpoles" can remain the same for the adult bullfrog.
- The temperature of the water should be increased and maintained between 72–78°F.
- Set up an aquarium where land and water can be options (they will need to get out of the water to feed). A small landmass can consist of sphagnum moss, driftwood, rocks, plants, and/or an artificial island made of Styrofoam or plastic. It gives them the choice to swim or move around on a dry surface.
- The water in the aquarium should fill at least ¼ of the tank. It is important to make sure the water is deep enough for the bullfrog to be able to swim.
- A secure screen top is recommended, as frogs like to jump.
- Change their water daily, if you do not have a filtration system—mist habitat daily for added humidity.
- We recommend 1 bullfrog/10 gallon of aquarium space.

Bullfrog Care:

- Bullfrogs will consume crickets, grasshoppers, fish eggs, worms, and (when the frog is large enough) mice. Bullfrogs that have just transformed from their tadpole stage should be fed earthworms or cricket nymphs.
- Make sure to feed them a little at a time so they do not gorge themselves. Do not feed them more food then they can consume in a 10 minute span.
- Feed 2–3 times a week.



Life Cycle

- Egg: Clumped, spherical mass laid by female in aquatic habitat, emerge four days after fertilization.
- **Tadpole:** Lasts about two years, ½ to 1½ inches. Tadpoles first develop hind legs and then front legs. They will then reabsorb their tail and develop lungs. At this time they will be able to leave the water.
- Young Bullfrog: Young bullfrogs will take two years until they become sexually mature. During this time they will stay close to the waters edge, jumping in and out to avoid predators. They will be between 2–4 inches in length.
- **Sexually Mature Bullfrog:** Once bullfrogs become sexually mature they will spend most of their life in the water. They can reach lengths of 8 inches not including their hind legs. The total life span of a bullfrog is 7–9 years, although they can live longer in captivity.
- Sexing Bullfrogs: Examine the size of the tympanum (external ear) relative to the eye. Males have a tympanum larger than the eye whereas the female's tympanum is the same size or smaller. The female is also larger then the male, but this can be hard to tell if the bullfrogs are not the same age. Also, during breeding season (May–July), the male's throat and thumbs become yellow and the females' will remain white.

Wild Habitat

- The bullfrogs' native range is along the east coast of the North America ranging from Canada all the way to Florida and as far west as Wisconsin out to the plane states. The bullfrog has been introduced to the west coast of the North America, Mexico, South America, Europe, and Asia. They are found along any kind of water boundary from lakes to small standing water depressions.
- The bullfrog has many natural predators including birds, turtles, snakes, and mammals. Humans also hunt bullfrogs for their meaty legs; most states have a season for bullfrog hunting.

Special Notes

Adults do not hesitate to eat each other. Large and smaller frogs should be housed separately.

Disposition

We do not recommend releasing any laboratory animal into the wild. As a laboratory animal, it has not encountered or learned wild survival skills and is therefore likely to come to an inhumane end.

- Adoption is the preferred disposition for a vertebrate.
- If the animal cannot be adopted by a capable owner, it may be surrendered to your local humane society.
- If the animal must be euthanized, we recommend consulting the AVMA guidelines on euthanasia (American Veterinary Medical Association, <u>Guidelines-on-Euthanasia-2020.pdf</u>). According to these guidelines, acceptable methods of euthanasia for an amphibian include exposure to CO₂ at >60% or treatment with tricaine methane sulfonate (also known as TMS, MS-222 and Biocalm 947-2100). TMS is an anesthetizing agent that will cause fish and amphibian death due to central nervous system depression and hypoxia with overexposure. Wear personal protective equipment (gloves, safety glasses, lab coat) when handling this substance. The fish or amphibian is placed in a solution of 5g per 5 gallons of water for 30 minutes or until all motion has ceased. To make sure the animal is dead, check for reflexive movement when the eye is touched. If movement occurs, replace the animal in the TMS solution for another 30 minutes.
- A deceased specimen should be disposed of as soon as possible. Consult your school's recommended procedures for disposal. In general, a dead vertebrate should be handled with gloves, and wrapped in an absorbent material (e.g., newspaper), wrapped again in an opaque plastic bag, then placed inside a opaque plastic bag that is sealed (tied tightly) before being placed in a general garbage container away from students.

