Keeping Dwarf Clawed Frogs

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with photographs by the author
Dwarf clawed frogs are members of the frog family Pipidae, a group also known as the tongueless frogs. The 30 species in this family are found in tropical South America and sub-Saharan Africa. The South American members of the family include the Suriname toads Pipa. The African members are the clawed frogs Xenopus and Silurana, and the dwarf clawed frogs Hymenochirus and Pseudohymenochirus.

These frogs are exclusively aquatic, meaning that both tadpoles and adults spend their entire lives in the water. They show numerous morphological modifications for their aquatic lifestyle. For example, their feet are completely webbed to help with swimming, and they have a lateral-line system similar to the one in fishes. Pipids are also unique among other frogs because they do not have a tongue and do not possess claws on any of their toes.

Most pipids make excellent pets if their size, lifestyle, and temperament are correctly acknowledged and adequate husbandry is provided. Because of their small size, lively temperament, and sweet disposition, I would recommend the dwarf clawed frogs for beginners. The following tips for keeping dwarf clawed frogs are also—for the most part—applicable for keeping clawed frogs as well. Due to their larger size and more rowdy behavior, adult Xenopus just need larger tanks, sturdier decorations, and larger chunks of food.

**Identification**

Most frequently offered in pet stores are species from Africa, mainly the African clawed frog Xenopus laevis and several species of dwarf clawed frogs of the genus Hymenochirus. Identification of the species level is difficult, but differentiating between clawed and dwarf clawed frogs for husbandry purposes is actually quite easy (and important).

Even in the juvenile state, where they are most likely to be encountered in stores, there are several characteristics that can be used to distinguish between regular clawed frogs and dwarf clawed frogs. Dwarf clawed frogs always look somewhat delicate, while the Xenopus tend to be quite stocky, even while they're young.

Another good way to distinguish between them is by looking at the texture of the skin. The skin of Hymenochirus is strongly granular, while the skin of Xenopus is very smooth. Both have webbed feet with black claws, but Hymenochirus has extensive webbing between the fingers and Xenopus does not. In addition, Xenopus have blemished eyes situated on top of the head, while the eyes of dwarf clawed frogs are situated more laterally.

In adults, there is also a big difference in size, as Hymenochirus only grows to about 1.5 inches, while Xenopus (especially the females) can reach a whopping 5 to 6 inches. Finally, if the frog in question is white, it is almost certainly a Xenopus. Albino of Xenopus are frequently offered in the pet trade, while to my knowledge no albino forms of dwarf clawed frogs exist.

**Tank Requirements**

A 5-gallon tank is large enough to accommodate a group of about 4 to 10

The African clawed frog Xenopus laevis grows much larger than its dwarf cousins; the lack of webbing between its fingers is typical for Xenopus frogs.
Carvalhoi's suriname toad *Pipa carvalhoi* is another larger aquatic frog of the family Pipidae.

Two dwarf clawed frogs *Hymenochirus boettgeri.*

dwarf clawed frogs. Either fine gravel or sand can be used as a substrate on the bottom. Hiding places can be provided by pieces of driftwood or some rocks that are grouped to form crevices and cracks. Since the frogs like to dig, care has to be taken to arrange the rocks in a way that keeps them from tumbling down. This would be especially important for a tank adapted for a *Xenopus* frog. The tank can either be planted with live plants or decorated with plastic ones.

One of the most important requirements of a dwarf clawed frog tank is a tightly fitting lid. In my experience, frogs are escape artists, and can find and squeeze through amazingly small gaps in the tank cover. Once out of the water, the frogs will dehydrate and die very quickly. I always take great care in covering the tank as tightly as possible (including the gap for the heater and filter cable). Another option might be to take a larger tank and fill it up halfway to keep the frogs from climbing up and out, but putting on a lid is a better option.

Dwarf clawed frogs are most active during the evenings and at night. Consequently, the tank setup does not have to include artificial lighting unless live plants are kept in the tank.

In my experience, the frogs are not very delicate when it comes to water parameters. I use the tap water provided in my area, which is medium hardness (of about 4) and slightly on the acidic side (pH 6.9). I do, however, pay close attention to water quality and change about one-fourth of the water every week using aged tap water. Before you put the tap water into your tank, make sure you add a little water conditioner to it, or leave it in a bucket overnight so the chlorine evaporates.

Dwarf clawed frogs can be kept in tanks with or without a filter. Regular water changes—which should be performed anyway—will keep the tank clean, so a filter is not really necessary. If a filter is used, make sure the water current it creates is as gentle as possible. Dwarf clawed frogs are not strong swimmers and can easily be sucked into the uptake tube.

Water temperatures between 20° and 28°C (68° and 82°F) are acceptable for the frogs, so a heater may be necessary. I keep my tank in a room with central heating, which keeps the water temperature in the acceptable range. An added benefit is that the temperatures vary with the seasons, so winter will bring cooler temperatures, which may help to get the frogs in breeding condition. A thermometer in the tank will help keep track of whether adjustments of the water temperature are necessary.

**Feeding**

Feeding adult dwarf clawed frogs is fairly easy. My frogs accept all types of frozen fish food like bloodworms and brine shrimp. Flake food was never accepted by my frogs, but some clawed frogs apparently do eat it. All sorts of appropriately sized live food can also be offered to the frogs. Larvae of mosquitoes, white worms, and small or chopped earthworms are all good foods. It is a treat to watch the frogs excitedly swim around and hunt after live food.

Although dwarf clawed frogs will hunt after swimming prey, they mainly eat food that sinks to the bottom of the tank. If they find a morsel, they feed by striking suddenly at the prey item. They don't chew their food, they gulp it down whole. If the morsel is too large to fit in the mouth right away, they will use their hands to stuff it in, or use their clawed hind legs to pull bite sized pieces off. These frogs will eat...
H. boettgeri, a pair during oviposition—the rear ends protrude over the water surface, and one to three eggs are deposited on the surface.

During a breeding event—which can last for several hours—the pair may perform up to 350 of these summersaults.

Tankmates

Although dwarf clawed frogs are sold as companions to tropical fish, they are much better kept in a tank for themselves. They tend to be a bit shy and clumsy, and often the food will eat all the food before the frogs have a chance to get to it. Invertebrates like apple and mystery snails, or freshwater shrimp, might be good companions for the frogs because they either feed on vegetable matter or are slow enough so the frogs will have a chance to eat first. I have also successfully kept my frogs with Otocinclus catfish—a delicate little fish that does well in a tank with dwarf clawed frogs.

Breeding

Outside the breeding season, frogs may be sexed by looking at their body shape. Male dwarf clawed frogs are slim, while females tend to be about 20 percent larger. During breeding season, females will become almost pear shaped as their abdomen fills with eggs. Mature males develop a small pink axillary gland behind each of their front legs. The role of these glands is not well known, but they may play some part in mating by producing pheromones to attract or excite females.

Male Hymenochirus will begin calling a few days (or weeks) before mating occurs. They call underwater, typically while sitting on the bottom. Contrary to the nocturnal serenades of many other anurans, the calls of dwarf clawed frogs are pleasantly soft-sounding rapping or buzzing noises. Calling is most intense in the evenings and at night.

Well-fed adult frogs may start to breed without any obvious external stimulus. If the frogs don't reproduce, breeding may be stimulated by increasing the temperature and performing large water changes to simulate rainfall. If the stimulation is successful, the male will grasp the female firmly around the waist. The eggs are deposited on the water surface.

In order to get the eggs to the water surface, the pair will perform underwater summersaults. They swim to the surface, turn their ventral sites upward, and for a brief moment their rear ends are lifted above the waterline. In this very moment, anywhere from one to three eggs are deposited on the surface. During a breeding event—which can last for several hours—the pair may perform up to 350 of these summersaults.

Freshly laid eggs floating on the water surface.
A large female can lay up to 1000 eggs, but a few hundred is more likely. Once spawning begins, it is often repeated at an interval of several days for a few weeks, after which the frogs take a break for a several months.

If the eggs are left in the holding tank, the parents and any other frogs in the tank will eventually eat the eggs or the developing tadpoles. It is therefore best to remove the eggs from the tank shortly after the frogs finish laying them. Since mating generally takes place at night, I check the water surface for eggs in the morning and then transfer them if needed.

I use small plastic boxes with a low water level but large surface area to hatch the eggs and raise the young Hymenochirus eggs are sticky and very delicate when first laid. Therefore, I use a large spoon to scoop up a few eggs floating on some water. That way the eggs never actually touch the spoon, and I can transfer them in a way that they will also float in the hatching container.

Adding a few drops of fungicide to the water until the larvae hatch seems to be beneficial. Since aeration will disturb the water surface and swirl the eggs around, I do not use it while caring for eggs and tadpoles. I do, however, pay close attention to water quality. Newly hatched tadpoles are very delicate and highly susceptible to poor water quality. One or more small (5- to 10-percent) daily water changes may be necessary, especially if small containers are used for raising the tadpoles.

**Tadpoles**

Dwarf clawed frogs will need about four to six weeks to develop from egg to froglet. Depending on water temperature, the tadpoles will hatch in two to three days. Newly hatched larvae are only 1/10 of an inch long. For two to three additional days, the larvae will remain dark and hang motionless from the water surface or the walls of the container, feeding off their remaining yolk sac. As soon as they start to swim around, the pigmentation disappears and they become almost translucent. At that point, they have to be provided with food.

Unlike Xenopus tadpoles, which are filter feeders, Hymenochirus larvae capture living prey items. Initially, these must be very small. Infusoria (tiny organisms) found in green water are the best food for the first couple of days. Since I did not have infusoria handy, I used brine shrimp nauplii to feed the tadpoles during their whole larval period. During the first few days, I tried to feed the nauplii as soon as they hatched in order to offer them to the tadpoles in the smallest size possible. Small tadpoles only seem to respond to moving prey, but once they develop hind legs they start to use taste as well as sight to hunt for prey.

Around this time I start to feed the frogs small quantities of finely chopped frozen food in addition to the brine shrimp. Then I slowly start to wean them off the brine shrimp. Fully metamorphosed froglets will then accept frozen food, which makes raising them quite easy. Dwarf clawed frogs grow very quickly, and within a year they can reach sexual maturity and start to breed themselves. Despite their small size, they can live up to seven years in captivity.

With their small size, lively behavior, and sweet temperament, dwarf clawed frogs make interesting aquarium pets for aquarists, from beginner to expert, looking for something different. If you’ve got a spare tank and want to try an aquatic vertebrate other than a fish, they might be the right choice for you!