

Baby Swamp Fishes:

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It may or may not be a well-known fact that most of the fishes I like, regardless of what country they come from on this earth, are from swamps or marshes.

I have seen a number of good articles on keeping swamp fishes, and even spawning them, but the nicest thing about swamp fishes is the care of their young. As I do with any fishkeeping project, I check out what ol' Mother Nature is doing. As undisputed fact may have it, she has these methods down better than anyone. By following "her" approach, I have found that many fishkeeping chores are not so much chores any more, and that the cost of fishkeeping is a lot cheaper.

Nearly all swamp fishes live in thick plant growth. This protects them from predators. In addition, these plants are home to many tiny little "bugs" the fry eat to get to the next stage of development. Re-creating this environment in the fish room is quite easy. I call these setups "moss tanks." One setup is a 2.5-gallon tank that's densely packed with java moss and may include floating plants. The second setup is a 20-gallon tank with open water in its mid-section, java moss or a similar plant covering the bottom, and a floating mass of vegetation at the surface, preferably plants that have trailing roots like water sprite, frogbit and water lettuce.

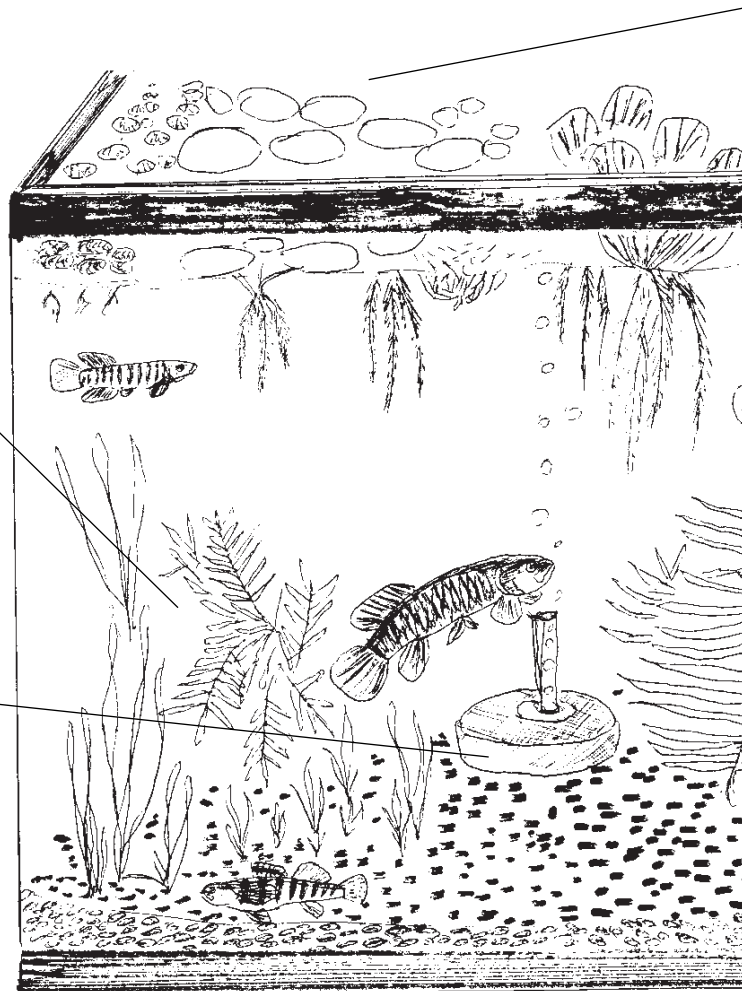
After the fish have spawned and the parent(s) are done guarding the fry, you can either remove the parents, or move the fry to the moss tanks. I recommend removing the parents and turning the bottom of the tank into the moss tank nursery. If you are leaving the babies in the original tank, then simply add java moss, or other suitable plants to the tank. Your fry will find plenty to eat and will grow at a good rate.

If you are putting the fry into a nursery tank, you will first need to determine the size of tank you'd want to

A typical "moss tank" setup for keeping and spawning *Elassoma*, *Fundulus*, *Umbra*, "swamp-type" *Etheostoma* and *Phoxinus*. The actual setup would have clumps of plants that fill nearly the entire volume of the aquarium except for front center. Fishes that come from swamp habitats will show themselves more if their aquarium is decorated with thick vegetation.

Weed bed consisting of different broadleaf plants like eelgrass, *Cryptocoryne*, etc., plus hair grass and *Bacopa*.

Foam filter would be hidden in java moss. Air flow is a slow trickle of bubbles.



# How to Raise Them

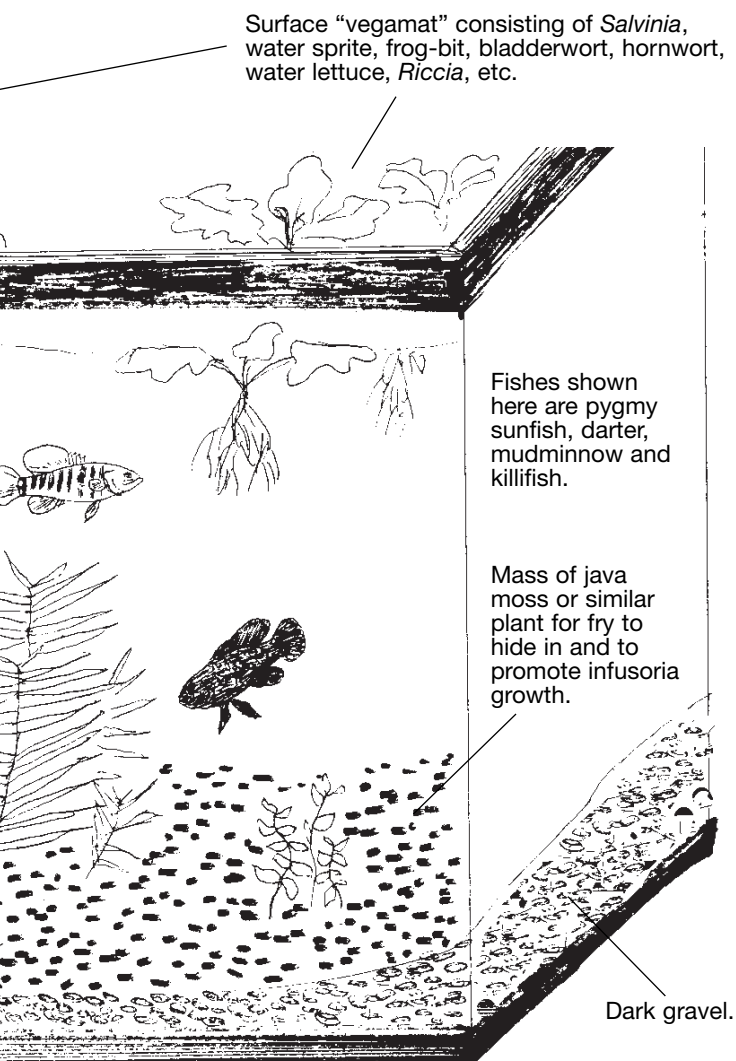
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Aquarium is uncovered (except for when keeping cyprinids). Floating plants keep other species from jumping out.

Aquarium is lit by two 40-watt bulbs: one cool white-type, one warm white.



use. This depends on how many fry you plan to raise. For example, let's use a dozen killifish fry. A 2.5-gallon with a foam filter that has matured for at least a month will have a sufficient supply of infusoria in the gravel. (As a bonus, add a culture of paramecium.) I use a one-inch layer of gravel, then pack the rest of tank with java moss, water sprite and other easy-to-grow plants. A simple 20-watt light fixture—the kind you can pick up at most hardware or department stores for around eight bucks—provides illumination.

It is important that moss tanks are established before you can expect enough infusoria to feed your fry. Once established, you can actually see the infusoria in the water with a flashlight. Shine the light in from the front of the glass, and you should see what looks like white dust suspended in the water. This "dust" will be moving despite the fact that the foam filters barely create a current. It may be better to check the infusoria at night with a pen light after all lights are out in the room. The infusoria will appear as if lit from within, making them easier to see.

After three days your fry should start taking freshly hatched brine shrimp. I feed mine with an eye dropper.

Moss tank setups are ideal for raising swamp fish fry, especially pygmy sunfishes, killifishes, swamp-dwelling darters, mudminnows, and sticklebacks. I have gone on vacation for up to 10 days and have not found any starved fry. Adults left in the tank apparently find enough to eat as well, for they have spawned while I've been away. Moss tanks should also work for any swamp-dwelling minnows as well. And I've used larger moss tanks to raise sunfishes, bowfins and gars.

A final thought: Moss tanks also work well for invertebrates. Dwarf crawfish—a favorite of mine—do well with just occasional water changes and feedings. Grass shrimp and scuds (*Gammarus*) do nicely, too.