

FISH IN FOCUS: Pygmy Killifish (*Leptolucania ommata*) and Least Killifish (*Heterandria formosa*)

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Pygmy Killifish (*Leptolucania ommata*)

Also sometimes called the lemon killie [see page 17], the Pygmy Killifish is an outstanding little killie usually about one inch long. This, along with the livebearer *Heterandria formosa*, are two of the smallest vertebrate animals in the United States. The males are a bright yellow and brassy gold combination with metallic blue-green shading from the mid-body towards the tail. The females are also very attractive. The females are a metallic brassy color with a prominent dark band from head to tail along the mid-body line. The females also have two conspicuous spots, one at the base of the tail and one at about the mid-body line. These dark spots are highlighted by a lighter colored ring on the outside. In contrast, the male has a very small dark spot at the base of the tail.

The Pygmy Killifish is an excellent candidate for the nano-tank with live plants or even better, a larger tank with live plants. Care for the this killie is rather basic and simple. In my experience, they adapt well to most water conditions but since they are from highly acidic, dark-water environments, that would be the best for them. I have rather hard, alkaline water and I've kept groups of this fish for two years in these conditions. The Pygmy Killifish comes from dark, vegetated waters. It is most often found in amongst very green, dense submergent plant growth or underneath algae mats. They can be very concentrated in some areas, especially in the spring. I have caught up to 100 killies in one scoop of the dip net. I have kept them in one gallon jugs up to 30 gallon planted tanks. Good water quality is a must, but the fish do not like a strong current. Sponge or box filters set with a low air flow are probably best for a Pygmy Killifish tank.

One of the best display tanks I ever had was a 30-gallon tank heavily planted with Java Fern and Java Moss, a large piece of drift wood, and some Giant Salvinia. I kept a group of approximately 80 Pygmy Killifish along with *Elassoma okefenokee*, Swamp Darters, and *Heterandria formosa*. The tank had a dark background and dark gravel. All of the fish thrived and looked great. I used a brand-name dechlorinator and some black-water extract during water changes.

Pygmy Killifish are actually quite hardy and adaptable, not only to water parameters, but also feeding. Contrary to much that has been written about them, they eat just about anything. They are carnivorous so any live foods small enough for them to eat are about the best foods you can give them. Mosquito larvae, baby brine shrimp, daphnia, and micro-worms are all eagerly consumed. Frozen mosquito larvae, brine shrimp, and blood worms

work well. I have found that they do not seem to like frozen daphnia. I have also fed them shrimp pellets, carnivore tabs, and finely crumbled flake and freeze-dried krill.

Spawning seems relatively simple since they always seem to be displaying and going through the motions if they are happy and well fed. They are known to spawn in dense vegetation so spawning mops should work fine. The big problem is feeding the tiny fry since they need only the tiniest of foods for proper development. Or you can skip that and just put them outside in a rain barrel with some live plants and by the end of the season, you should be able to harvest some new fry.

Least Killifish (*Heterandria formosa*)

This species [see page 17] is another outstanding little fish from the southeastern United States. The females are barely one-inch long and the males are usually a third that size. Lively, sociable, and easy to keep, it eats anything, adapts easily to most water types, and constantly breeds. The Least Killifish is one of the two smallest vertebrate animals in the United States. Actually, the male may be the smallest vertebrate animal in the entire world.

I've caught the Least Killifish in several types of water. I've caught them in hard, clear, alkaline water in the Florida Everglades region; dark, acidic, tannin-stained water in the Okefenokee region of Georgia; and some brackish-influenced drainage ditches in South Carolina. Though in the book *Fishes of Okefenokee Swamp* by Laern and Freeman (1986), the authors state that the Least Killifish is not found in the swamp or its immediate drainage, I often catch them in an outflow from the park by the southern entrance to the National Wildlife Refuge in Folkston, GA, outside of the park boundaries. The Least Killifish, of course, is much more common east and west of Okefenokee Swamp.

I keep mine in the hard alkaline water straight from the tap. I add a little dechlorinator and a little dissolved aquarium salt. I have found that with the Least Killifish or with any of my wild livebearers, that the addition of a little salt seems to keep them in better health and prevents fin-clamping. The Least Killifish is another fish often found in dense plant growth or along the edges of plant growth, usually in relatively shallow water. They are social and often travel in large groups. There is one spot in Georgia where I often catch hundreds with little effort in very shallow water over the sand bottom of a boat launch.

My aquarium set-ups for Least Killifish are very basic in form and function. I filter the tanks with sponge filters set with a

low air flow only. The females drop fry continuously as opposed to a large batch at once. The fry are so small that they easily get sucked into the box filters, even with a low air flow. By using just a sponge filter, the fry have a better chance for survival. I have found that by the time I can see the fry in the tank, they are capable of eating baby brine shrimp.

I have successfully kept mine with pygmy sunfish *Elassoma* species, Pygmy Killifish (*Leptolucania ommata*), and Bluefin Killifish (*Lucania goodei*). Swamp Darters (*Etheostoma fusiforme*) will not harm the adults but will actively hunt down the

fry. I also made an interesting discovery concerning Least Killifish. I assumed that they were too fast to be caught by newts in a deep tank and that newts were too slow to hunt down fish in the open water. Neither was accurate. My group of Eastern Newts ate nearly 60 Least Killifish in an hour so newts should be scratched off the list as potential tank mates.

Reference:

Laerm, J. and B. J. Freeman. 1986. Fishes of Okefenokee Swamp. The University of Georgia Press. 118 pp.



Pygmy Killifish (*Leptolucania ommata*) - Dustin Smith



**Least Killifish (*Heterandria formosa*) females
Uland Thomas**



Least Killifish gold female - Phil Nixon