

THE AMERICAN MINI

by Joanne Bockstael

A rarely seen native of the southeastern United States is Heterandria formosa. Commonly called the Mosquito Fish, H. formosa is one of several livebearer species which are known by this name. It refers to their ability to consume vast quantities of mosquito larvae rather than their diminutive size.

H. formosa is North American's smallest vertebrate and the world's tenth-smallest! Adult females measure 1.25 inches total length; males measure 0.75 inches and newly-born fry 0.33 inches! These tiny gems are pretty fish with both sexes dressed in autumn colors. The longish body is basically tan with a broad brown stripe along the lateral line. Full maturity shows silver below the lateral line, gold above. Males have a black spot fronted by a white dash on their dorsals. When live foods, especially newly hatched brine shrimp nauplii, are fed to them, their dorsals flush bright red, even on fry just a few days old. All other fins are untinted and unmarked. Newly-born fry are colorless save for some vertical lines down most of their body and a dorsal spot. The lines fade with age except for a few in the case of males.

The care, feeding, and raising of these "minis" is really very easy. My entire stock, both breeders and young, which number some 40 individuals, live quite happily in a three-gallon tank. The set-up of my fish room makes running an airline to the two upper shelves of the multi-shelf unit housing my many small tanks virtually impossible. Because of this, they are without aeration or filtration of any kind. Even so, my colony seems comfortable, not at all crowded or lacking in oxygen or other necessary life conditions. Their tank is completely bare of gravel. The only "furnishings" are small, floating watersprite plants and masses of duckweed. These provide hiding and resting places for the young and harassed females. The only other occupant of the H. formosa tank is a large ramshorn snail. You'll see why this is necessary in the next section!

Heterandria are fairly omnivorous feeders, accepting fry flakes, small daphnia (live and frozen), and other tiny foods. They have extremely small mouths and cannot deal with regular flake foods (even when hand-crushed) or adult brine shrimp. One item which seems to be an essential part of their diet on at least every other day is live food. The best is newly-hatched brine shrimp, because they are available every day of the year no matter where you live. My H. formosa are heavily fed on brine shrimp nauplii at least once and usually twice daily, with three or four feedings weekly of

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flake food. This is more than ample. I found it interesting to note that soon after I began heavily feeding the brine shrimp nauplii, the dorsal fins of all the half-grown and adult H. formosa turned bright red. Whether this is due to the nauplii, which are reddish in color, or due to feeding a live food, I cannot say. I have cultured microworms on a few occasions, but never fed them heavily or often enough for any length of time to these tiny livebearers. Personally, I suspect that it's the color of the brine shrimp, as they are known to intensify the colors of other fish. This sort of diet makes for a lot of debris, and this is where the ramshorn snail comes in: he fills the role of sanitary engineer with great efficiency.

Water changes in the Heterandria tank used to be a problem. I had to be very careful to remove potentially hazardous pollutants (even small amounts can wreak havoc in such a small tank) while not removing a single fish. Using a length of airline tubing proved to be unsatisfactory as it was too slow and narrow. That left a piece of 3/4-inch plastic hose. I adapted this by attaching a power-filter intake-strainer tip to one end of the hose with electrician's tape. Electrician's tape won't let go under water, which makes it useful for all sorts of little jobs where water is involved. With this simple contraption, I can siphon out all the debris from the bare bottom of the tank, leaving the fish where they belong.

H. formosa females that are gravid resemble large ball bearings with fins! Mature males resemble elongated miniature kits; an entire flotilla of them constantly accompany each female. Unlike the well known livebearers, the females do not drop all their fry at one time. Rather, they produce one, maybe two, fry per day for about a week. After a few days' rest, they will resume producing fry. Thus, for her entire adult life, a female gives birth almost every day. Given proper care, H. formosa lives at least as long as any well-cared-for guppy or platy. I have a female who is now over two years old--closer to three, actually--who has been breeding from the age of some six or seven months and is still going strong. All my others are her offspring and doing equally well.

Miniature fish have a real fascination for anyone who enjoys keeping unusual fish. And the American mini is--to me, anyway--the neatest one of all. A tankful of these tiny autumn leaves is an amazing sight to behold.

--Adapted from Newsletter of Willowdale  
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