

Boraras brigittae is a stunning little fish.

Breed one of the smallest cyprinids, the red fin dwarf rasbora.

By Mike Hellweg

Boraras brigittae is a rasbora that can be kept in desktop aquaria. Photo Credit: Gary Lange

The rasbora fish genus *Boraras* is a small group of very small fish. None of them are over 1 1/4 inches in length at maximum size; and the redfin dwarf rasbora (*Boraras brigittae*) is one of the smallest members of the gigantic family Cyprinidae (the carps and minnows). They all are colorful, and each species is interesting in its own right. They make excellent members of either a dedicated species aquarium or a tiny fish community aquarium, and are perfect residents for one of the desktop aquaria that are so popular now. None of them will do well in community aquariums with large or boisterous fish. In such situations, they spend all of their time hiding and trying to avoid being eaten.

Boraras brigittae is a stunning little fish. It has a solid greenish-black stripe down the lateral line, over which is a bright red/orange stripe. The line ends in a separate wedge-shaped black dot at the base of the caudal fin in both species. Some males have deep red coloration throughout their bodies, which intensifies with age. Males have bright red fins outlined in black, and females have pale pink/orange fins and lack the deep red on their flanks, with only a hint of pale orange in the body. At least with my fish, the dominant male *B. brigittae* developed an almost glowing bright red sheen over the entire body but only when he reached about 1 year old. The subdominant males don't display this glowing coloration.

Several of the *Boraras* species are often confused with one another in the trade. You can often find *B. urophthalmoides* being sold as *B. brigittae*. These are the two species of *Boraras* that are similar, but when one learns the differences, they are easily distinguishable. There appear to be several populations of *B. urophthalmoides*, and some are more colorful, some less so. *Boraras brigittae* are very different fish and there is no way of confusing even the females. *Boraras brigittae* are much larger (relatively speaking, of course) at about 1 1/8 inches, nearly twice the size of adult *B. urophthalmoides*, which reach just over three-fourths of an inch. While the *B. brigittae* have a bright red or orange stripe over the lateral stripe, *B. urophthalmoides* have a green or gold stripe running over that stripe, depending on the population. In addition, the spot on the caudal peduncle is wedge shaped in *B. brigittae*, but this spot is round in *B. urophthalmoides*.

I keep the dwarf redfin rasbora fish in an aquarium by themselves, because they are so About the Author

Mike Hellweg has been an active aquarist for 30+ years and has been actively breeding fish since he was 9, working almost exclusively with small fishes that mature at 4" or less.

With more than 150 species from 20 families, he is the top ranked breeder of all time in his local club. Mike is currently the President of the Missouri Aquarium Society and is on the Board of Directors of the American Livebearer Association. He has written dozens of articles for various hobby publications. He also owns and operates a retail fish business. tiny. Their aquarium is a planted 15-gallon aquarium with about 30 to 40 *Cryptocoryne wendtii*, some Java ferns (*Microsorium pteropus*) and a couple of pieces of driftwood with Java Moss and *Anubias barteri nana* attached to it. The adult fish school in the mid to upper third of the water column. A single dominant male controls about 25 percent of the aquarium. He keeps all other fish out of this territory with a surprisingly

aggressive defense for such a small fish. He displays for females and "fights" with other males in the same way: by doing a "dance" alongside the other fish, either head-to-head or head-to-tail. He constantly flicks his body and fins at the other fish, while his body coloration intensifies. I assume this behavior shows how strong he is by the pressure wave he creates with the flick. No harm is done; it appears that the display is enough to keep the other males in line.

The dominant male is the only male that I've seen spawning with the females. I don't know whether the other males do any spawning. The dominant male does the dance described above for the females, and separates one of them from the school and coaxes her into his corner of the aquarium. They then spawn among the thickets of crypts or Java ferns, with the dominant male sometimes coaxing the female over Java moss, other times with him coaxing her upside-down under aquatic plant leaves. Some authors report the eggs are laid on the underside of the leaves. They go through this spawning ritual nearly every day, in the early morning just after first light.

After a few days of watching this ritual, I remove several aquatic plant clumps to a small aquarium for the eggs to hatch out. I fill the fry aquarium with water from the parents' aquarium, and add a slowly bubbling sponge filter. I also add a piece of old, slimy driftwood from the adults' aquarium to the fry aquarium. This step seems to be very important to successfully raising the fry.

After hatching, the fry are so tiny that they are difficult to see. They hang from the aquatic plants for a few days while they finish their development. After about four days, they start to make their first attempts at swimming, darting up into the water column and drifting back downward. After another day or so, they are "free swimming." That means they are up in the water column all the time, actually swimming. At this point, they are still nearly clear, and they spend most of their time hiding in and among the aquatic plant clump and on the driftwood. This is the point that I start adding fry foods to the aquarium. I add paramecia for the first several days, and then start feeding frozen cyclops along with the paramecia. After they have been swimming for about a week, I start adding newly hatched brine shrimp. The juveniles spend their first month or so in the aquatic plants near the bottom, then start spending more time higher up in the water column. By this time, they are large enough to go into the aquarium with the adults.

The entire time they are in the fry aquarium, they are probably mostly feeding on the micro-fauna on the aquatic plants and the bacterial or fungal slime that builds up on the driftwood. That seems to be the key to getting them started in life. I've tried spawning the adults in a spawning aquarium like one would with most other egg scatterers, but the fry do not do well, and I've not been able to grow them large enough to eat newly hatched brine shrimp.

On the other hand, when I've added a piece of "old" slimy driftwood with Java moss to the fry aquarium, the fry disappear into the Java moss on the driftwood. It's possible that they feed on the bacterial growth or maybe even some type of fungus that grows on driftwood for the first few days, then switch over to feed on the micro fauna on the aquatic plants. This would be similar to what they would encounter as first fish foods in the leaf litter in the wild, but it's a lot less messy than adding a bunch of old leaves to the aquarium.

I do not do water changes in the fry aquarium for the first four to five weeks. There aren't that many fry (usually only a couple dozen), and the live aquatic plants help to maintain water quality. Maintenance of the adults and older juveniles is straightforward. I do regular water changes of about 30 to 50 percent every 7 to 10 days. My pH is 7.2 to 7.4, and the total hardness is about 125 ppm, mostly from carbonates. I use sponge filters in all of my aquariums. Temperatures are kept in the low to mid 70s, and the lights are on for 12 hours a day, on a timer. Adult fish and older juveniles are fed with newly hatched brine shrimp, grindal worms, micro pellets, finely ground quality flake foods and the occasional squirt of a frozen food mixture with garlic when I'm feeding that to other fish in the fish room.

That's about all there is to it! I hope you are encouraged to try your hand at working with these miniature jewels.