

## The Smallest Known Perchlike Fish

**Get ready to solve the mystery behind the scarlet badis (Dario dario).**

*By Mike Hellweg*

More well-known perchlike aquarium fish, such as bettas and gouramis, are cousins of the scarlet badis (Dario dario) shown. Photo Credit: Gary Lange

One of the most exciting and colorful recent additions to the aquarium hobby is the gorgeous scarlet badis. These little, amazingly colored fish have generated a large amount of confusion and misinformation, probably due to the relative lack of literature about them. I hope this short piece will clear up some of that confusion and encourage you to try your hand with these diminutive beauties.

The scarlet badis is a cousin of better-known perchlike aquarium fish, such as the bettas and gouramis, and of course, cichlids. In fact, it is the smallest known perchlike fish. It is found in heavily planted areas along the shore of small streams of the Brahmaputra River system in Assam and West Bengal, India.

The adult males are like living jewels. The head, shoulders and back are rusty orange to ruby red. Their flanks are covered with seven red bands that extend into the fins. These bands are interspersed with eight silver-blue stripes, which also extend into the fins. The fins are outlined in white. The ventral fins are intense bluish-white and are often nearly as long as the fish is tall (one-half to 1 inch). The iris is golden to pale amber.

The females are plain, being a dull silver-gray with clear fins. Some larger females exhibit a few thin pale orange stripes on their flanks, but that's it for color. Probably because of this marked difference in coloration, females are rarely, if ever, imported. This is also probably the biggest reason hobbyists fail to get these fish to breed — they only have males.

Your dealer might be able to find a pair, or you can obtain pairs through many hobbyist breeders. A local aquarium club should be able to help you locate a breeder if you can't find them in local shops. Assuming you are lucky enough to find a pair, you'll need to understand this fish's special requirements in order to succeed in getting them to breed.

First, you'll have to take their diminutive size into consideration. The largest of males will not quite measure 1 inch, and females reach barely half that. A single-species aquarium would be best. Even though the males are tiny, they are mighty! They will spar with one another, and many aquarists have reported that one dominant male killed all the others in their aquarium. You can limit the aggression by only adding one male, adding several males (so that the aggression is not focused on one fish, which would eventually weaken and kill it) or adding plenty of plants to the aquarium.

I recommend at least a 10-gallon aquarium, though some people have succeeded in keeping and breeding them in a smaller aquarium. Use plenty of clean Java moss (*Vesicularia dubyana*) on the bottom of the aquarium. Clean Java moss means that it has no snails or other critters (like hydra) which might eat the eggs or fry. Add some floating plants, such as water sprite (*Ceratopteris* sp.), too. I've seen scarlet badis spawn both in the Java moss and among the leaves of water sprite floating near the surface, if it was thick enough. I'm not sure if one or the other is normal for them, or if they just take advantage of whatever is available. There may be exceptions, but no one that I've talked to has succeeded in breeding these fish without both of these plants.

Next, you'll need to feed the adults properly. They rarely touch flake foods. They will eat a few prepared foods like tiny pellets, as long as they are moving in the water. You will need to replicate their wild diet of insects, worms and crustaceans if you want them to thrive. They eat newly hatched brine shrimp, microworms, grindal worms, mosquito larvae, and small *Daphnia*. They will also eat some frozen foods. Frozen cyclops (a small aquatic crustacea) is a favorite and contains enough nutrients that it can serve as a primary diet.

Water conditions seem unimportant, as long as extremes are avoided. Keep the

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. temperatures in the mid-70s Fahrenheit, and do regular partial water changes, and these fish will be happy. Happy fish will spawn. I keep my breeders in water with a pH of 7.0 - 7.2, a total hardness of about 125 ppm with about half of that coming from carbonates, and a temperature of 76 degrees. I use a slowly bubbling sponge filter and change about 50 percent of the water every week. Some hobbyists I've spoken with have had success in harder, more alkaline water, and other hobbyists have had success in acid water. The key seems to be that the water is clean and changed regularly.

Dario dario, unlike its better-known cave-spawning cousin *Badis badis*, lays its eggs in the plants. Courting reminds me of the mating dance of many birds. The male scarlet badis displays his bright colors for the female, quivering and shaking while showing off his gaudy flanks. If she is ready to spawn, she follows him to his territory and allows him to embrace her, similar to the famous embrace of the betta. After a few false starts, the female will release her eggs, which the male fertilizes as they fall into the plants. Over the course of an hour or so, as many as 80 surprisingly large eggs are laid - the egg cluster is often larger than the female. The eggs don't appear to be adhesive and are not deliberately laid, they just all land in the same general area. After spawning is complete, the female is driven off, and the male guards the area, though he doesn't "tend" to the eggs as a cichlid would. He just keeps other fish out of the general area, and he is relentless in doing so.

The clear eggs hatch in two to three days, depending on temperature. The fry disappear into the plants and are not seen again for several days. I'm not sure if they head for the surface or for the bottom. After they absorb their yolk sac, I believe they feed on the micro-fauna that live on the surface of the plants. After three or four weeks, they'll definitely be on the bottom, and you'll see miniature copies of the adults coming out from under the Java moss to eat while you are feeding the adults. Young males begin to develop their bright adult coloration at about three-eighths of an inch, so they are easy to sex at an early age.

With a good diet, the adults will spawn every three to four weeks. For that reason, it's a good idea to either move the adults to another similar aquarium after spawning or remove the Java moss containing the eggs to another aquarium. Otherwise, the older fry might prey upon their younger siblings hiding in the Java moss.

I hope this article will clear up some of the mystery surrounding the scarlet badis and encourage you to at least think about dedicating an aquarium to a pair or small group of these tiny beauties. I can guarantee that you'll be glad you did.