

Checkerboard Dwarf Cichlid

The checkerboard dwarf cichlid makes an elegant aquarium resident.

By Paul V. Loiselle

Q. I recently added a pair of checkerboard cichlid fish (*Dicrossus filamentosus*) to our 29-gallon tank. During the day they are both very sociable and swim in short bursts similar to a puffer. At night, one wanders just above the gravel while the other returns to the same cave, which it defends aggressively against any intruders. Any information on the care and spawning of these small wonders would be appreciated. Also, how do I know if I really have a pair?

A. Your enthusiasm for your new acquisitions is fully justified. The lyretail checkerboard cichlid fish is undoubtedly the most elegant of all neotropical dwarf cichlid fish.

To respond to your last question first, all *Dicrossus* species discovered to date are characterized by marked sexual dimorphism. Males grow to 2¾ inches standard length (SL, which does not include the tail), nearly twice as large as females, and have much longer and quite differently shaped fins. In the case of *Dicrossus filamentosus*, an adult male sports a lyre-shaped caudal fin, as well as long, filamentous dorsal, anal and ventral fin extensions. Because lyretail checkerboard cichlid fish are usually imported as juveniles, you will probably have to wait a few months to be absolutely certain of the sex of your fish.

Dicrossus filamentosus is native to the middle and upper reaches of the Rio Orinoco and the Rio Negro. Specimens frequently appear as "contaminants" in shipments of cardinal tetras, whose habitat it shares.

Lyretail checkerboard cichlid fish are quintessential "black water" fishes, hailing from waters with no measurable hardness and pH values that range from 4.5 to 5.5. Specimens can be gradually acclimated to harder, less acid conditions in captivity. Indeed, spawnings have been reported in waters of neutral pH and hardness values up to 4 degrees DH. However, fry will result only when pH and hardness values closely approximate those prevailing in nature.

All checkerboard cichlid fish are extremely sensitive to dissolved metabolites. An efficient biological filter is therefore essential to their successful husbandry. You should be prepared to either make the regular, frequent partial water changes or use a chemically active medium in their aquarium's filter in order to keep nitrate levels below 5.0 parts per million (ppm).

Like the blue ram (*Microgeophagus ramirezi*) with which it coexists in the Orinoco drainage, *Dicrossus filamentosus* requires warm water to prosper. Prolonged exposure to temperatures lower than 80 degrees Fahrenheit is stressful and should be avoided.

As you have undoubtedly discovered, this species will take flake fish food readily. However, it requires a high proportion of live or high-quality frozen food in its diet to come into breeding condition. Live *Daphnia* and brine shrimp nauplii are particularly appreciated, as are frozen bloodworms.

Lyretail checkerboard cichlid fish are peaceful to the point of shyness. A planted aquarium will go a long way toward overcoming the timidity of captive specimens. They do not prosper in the company of other dwarf cichlid fish and are best kept together with small schooling characins, or cyprinids with similar care requirements, such as the smaller *Rasbora* species. Pencilfishes are particularly good tankmates for *Dicrossus filamentosus*.

Aggression between male lyretail checkerboard cichlid fish is highly ritualized and thus easily dealt with. So it is quite possible to house two or more together with minimum risk in an aquarium as small as 20 gallons.

Like the majority of neotropical dwarf cichlid fish, *Dicrossus filamentosus* is a harem breeder, which is characterized by exclusively maternal brood care. It differs from the generality of dwarf cichlid fish in preferring to spawn in the open.

Vertical spawning sites are preferred. Given a choice, females will usually place their eggs on the leaves of Amazon swords or similar broad-leaved aquatic plants. However, some individuals have been observed to spawn on pieces of waterlogged wood, the vertical faces of clay flowerpots or even the walls of their aquariums. Males court females more or less continuously, so the sight of the female cleaning such a surface is often the first indication that a spawning is imminent.

Immediately prior to spawning, the checkerboard pattern in both sexes is replaced by a parallel series of dark lateral bands. Once spawning is completed, the female will chase her consort away from the clutch and assume full responsibility for its care. Parental females have a reputation for unreliability. Given that normal development will occur only if the fish have spawned in extremely soft acid water, it is possible that such persistent egg eating may represent nothing more than a normal response to an unviable clutch of eggs.

The eggs hatch in four days at 80 degrees Fahrenheit. The female will usually move the wrigglers several times between hatching and the onset of full mobility, some six days later. Once the fry become free swimming, the female's ventrals develop a broad black margin along their leading edges. This presumably enhances their visibility when she uses them to signal her school of young.

Although they are quite small, the newly mobile fry can still take newly hatched brine shrimp as their initial food. If due attention is taken to managing the nitrogen cycle in the breeding aquarium, they are easily reared.

The characteristic checkerboard pattern appears on the flanks between five and six weeks posthatching. By dwarf cichlid fish standards, growth is fairly rapid. *Dicrossus filamentosus* attains sexual maturity between six and eight months postspawning, at a length of 1½ inches SL for males and 1¼ inches SL for females. Interestingly, captive-bred fish breed far more readily than do wild-caught specimens.

Dicrossus filamentosus can by no stretch of the imagination be described as an "easy" dwarf cichlid fish. However, its elegant shape, sparkling coloration and peaceful temperament make it well worth the extra effort its successful husbandry entails.