

## Breeding Jewel Cichlids

### Can you give me information on breeding and raising jewel cichlid fish?

*By Paul V. Loiselle*

Q. Recently my pair of jewel fish spawned. I maintained the water temperature in the aquarium at 80 degrees Fahrenheit and used an undergravel filter for filtration. I started with four jewel fish in a 20-gallon aquarium, but after the male had selected his mate, I moved the remaining fish to another aquarium. It didn't take them long to do their stuff. In a couple of days one of the rocks was covered with about 350 opaque eggs.

After reading a book that said "the pair take great care of their young," I decided to leave the eggs with the parents, who seemed to be taking good care of them. Unfortunately, just before the fry became free-swimming their parents devoured them. On top of that, the day after they ate the fry, the male killed the female. What a mess! Do you agree with what the book had to say? If you do, what do you think I did wrong? I would appreciate your advice.

A. The information contained in the book you read was correct but incomplete. To understand where your management practices fell short, you need to understand a bit more about how pair-bonding in cichlid fish actually works.

Reproduction in substrate-spawning cichlid fish in which both parents provide custodial care for the eggs and young, such as jewel fish, entails joint defense of a breeding territory against intruders. This requires getting two animals that outside of periods of sexual activity are not very fond of one another's close company to amicably share the same piece of real estate for however long it takes to raise a brood of fry to independence. This state of affairs comes about naturally in the wild because the breeders have a super abundance of targets against which they can redirect the aggressive behavior that the proximity of each elicits from the other.

In your aquarium, the "extra" jewel fish provided the necessary targets for the developing pair's aggression. When you removed these other fish to a different aquarium, presumably out of a humane consideration for their well being, you inadvertently removed the best guarantee of the new pair's stability. In the absence of suitable "target fish," the bond between male and female began to erode. The end result was intersexual fighting, leading to loss of the brood and death of the female.

The easiest way to avoid such losses is to allow the fish to spawn in a community aquarium large enough to provide the pair with a territory, and their tankmates a sanctuary beyond its borders. Under these circumstances, jewel fish are indeed exemplary parents. In a 20-gallon aquarium this is not practical. However, there are other, quite humane ways to provide an isolated pair of cichlid fish with suitable targets for their aggression. The simplest is to move the breeding aquarium's other jewel fish into an immediately adjacent aquarium, where they can still be seen by the new pair. As long as the other fish are close and visible, the pair will perceive them as a threat. They will act together against these potential fry predators, and in so doing effectively reinforce their bond.

An alternative approach is to partition off a quarter of the aquarium's length with a piece of glass or egg-crate plastic screening and place a suitable target fish on the other side. Another individual of the same species is ideal for this purpose, but virtually any fish the same size as the breeders will suffice. Such an arrangement allows the target fish to function as a strong elicitor of parental aggression at no risk to its well being. If you opt for a glass divider, take care to keep the panel from becoming overgrown with algae. If the pair cannot see the perceived threat, it is quite probable that the pair bond will break down, with possibly lethal consequences to the female.

I hope you will try to breed your jewel fish again. They are among the most interesting of the mid-sized, substrate-spawning cichlid fish, and are spectacularly colored in the bargain. As long as you take care to provide suitable target fish, I am certain you will find that the pair will indeed "take great care of their young."