Spawning my Spotfin Shiners (*Cyprinella spilopterus*)

by: Brian J. Torreano

It was the best of tanks, it was the worst of tanks. I had had the 29-gallon Aqueon aquarium set up on my display rack for the better part of a year, and the fish and plants were doing fairly well. Until recently, the plants hadn't been doing great in the tank, though. For the longest time, I had had the tank lit with a standard “deluxe” aquarium hood and a 50-watt halogen desk lamp. I know, “Yikes!” Then, about 2 months ago I upgraded to a Coralife Aqualight T5 twin-tube fixture with plant lamps. The substrate, my special mix, had always been fertilized and I continued to fertilize the water column with FloraPride by Tetra, as I had always done. With the new light, the plants started to take-off, but not to the extent that I really wanted. In the first full week of January, I started a new plant fertilizer in the tank. I began using Flourish Excel®, by Seachem®. I started treating the tank every other day with the Excel. Then the plants started growing to the point that I had to trim them every week. Sickly stems started showing new growth, too. I mention this because I think that the health of the plants in the tank relates directly to the health of the fish. Other than the lighting and fertilizer changes, I didn't change any other water parameters. The water temperature was still 78ºF and I was still doing 50% water changes once weekly with 72ºF dechlorinated tap water.

I had collected the Spotfin Shiners last October at my absolute best collecting spot for that species. When I say my best collecting spot, I mean the spot where I collect the most colorful and robust specimens. I really hoped that I could breed these fish, but I thought that that would be difficult as I had never really had any egg-layers spawn on-purpose for me to date. “On purpose”, meaning that I had planned to, and was ready to collect the eggs and hatch and rear the fry in a tank specifically for them. The Spotfins had romantic ideas, though, and fortunately for me, I was able to spot the signs.

About a week before the spawning act, I noticed that the male Spotfins were starting to chase the females and that the females were getting fatter. I decided to make a spawning trap for the eggs based on a design that I had seen at a Milwaukee Aquarium Society (MAS) meeting. The design was either created by Jim Graham or Charlie Grimes. I don't remember who gave the talk. The design was pretty simple. I used 5 small terra cotta pots strung together using aquarium airline tubing. To create spaces between the nested pots to catch the eggs, I used little crosses of airline tubing joined at the center by 3/16 inch tile spacers. To assure that eggs caught in the trap would not fall out the drain holes of the terra cotta pots when moved, I strung a transfer pipette in-line with the aquarium airline. The ends of the pipette were cut off and the airline was strung through it. The completed device was propped-up against the side of the tank and the end of the airline tubing that extended out of the tank was hooked on to a suction cup.

I started to feed the Spotfins heavily with flake food and live blackworms. In addition to the regular feedings, I used a worm cone by Lee's® to allow the fish to feed at their leisure throughout the day. By the end of that week, I noticed that the males were starting to rub their vents on the spawning apparatus when they swam by, and they tried to get the females to follow them. I noticed no eggs on or in the apparatus at that point, though.
Saturday night that week was the “big event”. I changed 50% of the water in the tank with water that was 6 degrees cooler than the ambient tank temperature. After the water change and a feeding, I noticed that the females were really fat. I went to bed hoping that there might be eggs by morning.

Sunday morning I was rewarded! The females looked spent, so I pulled the spawning apparatus out of the water to look for eggs. As I looked closely along the rims of the pots, I noticed 5 eggs of about 1 to 2 millimeters in diameter. Success! I quickly put the spawning apparatus into a 2 and ½ gallon tank with water from the parent's tank. I also added a sponge filter and squeezed a sponge from an established tank into the fry tank to start the bacterial cultures necessary for initiating the nitrogen cycle in the tank. I also knew that microorganisms present in the established filter could be used by the new fry as food.

Five days later, magic happened! The little fry hatched and were swimming around the fry tank. They looked like little slivers of glass. There were between 50 and 100 little ones! They were about 5 millimeters in length, but were very slim. They looked like eyes with a tail. I began feeding them vinegar eels and Cyclop-eeze. I couldn't tell if they were actually feeding, but judging by the fact that they didn't appear to have a yolk-sac, and they were still alive after a few days, I assumed that they were eating.

Well, now I'm in the rearing stage. It looks like I have less than 50 babies now, but they're growing really fast. The larger babies are about a centimeter in length and are starting to look like little fish. They're really cute! I hope you've enjoyed this tale of my spawning of Spotfin Shiners. Hopefully in the near future, I'll have more stories to share of the spawning of other fish. Thanks for reading!

Brian

Brian J. Torreano - Owner
BTDarters
American Native Fish for your aquarium...and more!
Web: http://www.btdarters.com
Email: bt@btdarters.com
Phone: (262) 268-7489