## SPAWNING MY MILWAUKEE RIVER SPOTFIN SHINERS, LEGALLY!!!

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For those of you that don't know, I have a Letter of Permission (LOP) issued by the state of Wisconsin's Department of Natural Resources (DNR) to capture, keep, breed, and sell native "minnows" of Wisconsin. I put the word "minnows" in quotes because the state definition includes some other fish that don't normally fall under the definition of minnows. Such fish are: suckers, mudminnows, madtoms, stonecats, killifish, topminnows, silversides, sticklebacks, trout-perch, darters, sculpin, and all species in the minnow family, except goldfish and carp. I have had this LOP for many years and enjoy using my LOP to provide people and institutions with

Author's Note: This article was originally written for the Milwaukee Aquarium Society Breeder's Award Program. Some things mentioned in the article may be obvious to the reader, but were included as it was intended for an audience with limited knowledge of my operations. Reprinted with permission from Splash, the official publication of the Milwaukee Aquarium Society.

native fish though my hobby-business, BT-Darters. I see and catch a lot of fish that many people don't know about. One of the more beautiful fish that I catch in southeastern Wisconsin is the Spotfin Shiner (*Cyprinella spiloptera*.) During the breeding season, May to September, males collected in the river are an absolute stunning steel blue with scales edged in purple and fins of orange with white tips! They rival most tropical fish any day! Now I do have to mention that non-spawning males and females are simply silver in color, though they do possess the species' interesting body shape. To me, Spotfin Shiners look like little salmon. Anyway, I love these fish!

This year, in the month of June, I collected several breeding-condition male and female Spotfins out of the Milwaukee River. Now, you may think that the Milwaukee River might be a complete environmental "mess," but it has actually improved dramatically in water qual-

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ity over the last 10 years. At one particular location where I collect the Spotfins, the water has several feet of visibility, even after heavy rain events. And, this may sound bad, but the river has no odor. I mention that because in years past, for example, the 1990s, I remember the river having a distinct, rancid smell. Now, no odor and many fish! Good times!

After collecting the fish, I got them home, acclimated them, and got them on a heavy Captain Bob's flake food and live blackworm diet. After about a month in captivity, they started laying eggs. Now, Spotfins are crevice spawners, so I had to make special egg "traps" for them. What I did was I threaded some small clay pots through a piece of airline tubing and put spacers between the nested pots. The spacers were made out of airline tubing, too. That made a gap of about 3/16 of an inch between each pot. I placed the "pot array" in the adult's tank and just waited for them to start laying eggs. I checked the pots every few days until I found eggs. On July 26th, the fish laid eggs. I removed the spawning apparatus with the eggs and put them in a seasoned 2.5-gallon tank with a sponge filter and a heater. Now, I probably don't need a heater in there, but I wanted to get the fry to grow as quickly as I could. I really wanted those Breeder Award Points (BAP)! The adults spawned again three days later, and after several days, I had 50-100 fry from the two spawnings. The fry didn't seem to have much of a yolk sac when they hatched and looked like tiny little slivers of glass. I immediately started them on a microworm and vinegar eel diet and performed 50% water changes once daily. The fry seemed to acclimate to the live foods and water change schedule well. After about a week, I began adding live baby brine shrimp, Captain Bob's Top Secret Fry Food, and Captain Bob's Nori "45"

Fry Food to their diet. They did very well on this and have been growing well.

At the time of writing this article, the fry are a couple of months old and are doing very well. I estimate that I still have about 50 fry and the largest ones are 1 and ¼ inches long. I am going to have a limited number of fry available for purchase. The DNR regulations regarding my selling of captive-spawned fish are a little bit less strict than my selling of wild-collected fish. For my wild-collected fish, the people who purchase them from me are required to register with me, providing name, mailing address and phone number. This is because the DNR wants me to have that information on file in the event that the fish disease Viral Hemorrhagic Septicemia (VHS) is found at any of my collecting sites. If it is, the owners of fish from that location(s) can be notified. This has not happened since VHS was found in Wisconsin, and I only collect from VHS-free waters, but it is a precautionary measure.

For my captive-spawned fish, no registration is required, though I do provide a proof-of-purchase to indicate that you legally purchased the fish from me. Simple stuff!

Well, if you like what you've read here, please head over to my website: www.btdarters.com. If you want to purchase some Spotfin fry, I am selling them for four fry for \$15.00. Please contact me through any of the means on my "Contact Us" page on my website. Thanks for reading my article!

## Other Links of Interest:

Captain Bob's Fish Food: www.captainbobsfishtales.com California Blackworm Company: www.aquaticfoods.com