

# How Do Your Redbellies Spawn?

Bob Muller

625 S. Altadena, Royal Oak, MI 48067  
michiganfish@aol.com

I wanted to try my hand at breeding minnows, but with the lack of information on the spawning of North American native fishes, I wasn't sure which species to try. Then I heard Dr. Sternburg's talk on spawning *Phoxinus* at the NANFA 1999 convention and my mind was made up. When I returned from the convention, I collected a dozen northern redbelly dace (*Phoxinus eos*) and placed them in my cold room to winter. Having heard Dr. Sternburg's talk and read his three articles in *American Currents*, I knew exactly what was going to happen.

When spring came, I set up a 15-gallon tank for my spawning attempt. I covered six inches at one end of the tank with 1-1.5 inch diameter gravel, and placed the power filter's outflow over it. The remainder of the bottom was covered with standard aquarium gravel and a large piece of Java moss. In his talk, Dr. Sternburg stated that northern redbelly dace spawn in plants. So I added the gravel because at the time it wasn't yet clear to me whether I had northern or southern (*P. erythrogaster*) redbelly dace. (They were northern.)

My fish then decided that what they do in the privacy of their own spawning tank is their business. They hid under the plants and occasionally made dashes into the open area and spawned over the large gravel. I gathered eggs daily by removing the gravel. I also searched the Java moss, but never found any eggs in it. The adhesive eggs hatched in five days. The fry were easy to raise on green water and newly hatched brine shrimp.

I checked all of my books to see if there were any reports of northerns spawning over gravel. *Fishes of the Central United States*, by Tomelleri and Eberle, stated that northerns spawn in plants and southern in gravel. *Northern Fishes*, by Eddy and Underhill, also says northerns use plants. *Fishes of Arkansas*, by Robison and Buchanan, reports that southern

spawn in gravel. These books agree with both Dr. Sternburg's talk and article, "Spawning of Southern and Northern Redbelly Dace Compared" (*American Currents*, Winter 1992).

I heard that David Schleser, author of *North American Native Fishes for the Home Aquarium*, had an odd experience with southern redbelly dace. I wrote to Dave to ask about this. He replied that he placed southern redbelly dace that he had collected in Oklahoma into a 100-gallon pond without gravel or current. In the fall, when emptying the pond, he found young of the year.

I collected my northern redbelly dace in a creek that flows out of a bog. The bottom alternates between sand, mud and gravel. It is usually less than six inches deep where it flows over the gravel. There are no aquatic plants, but tree roots and grass hang in the water along the edges. These areas would provide a good spawning medium for plant spawners (although they are filled with brook sticklebacks and central mudminnows). Could it be that the northerns from this creek spawn in gravel as a response to predators?

I think we need to look closer at this species group. It seems that they are not locked into spawning methods (at least in the aquarium) as previously reported. Aside from northerns and southern spawning out of the norm, has anyone had any odd experiences with mountain redbelly (*P. oreas*) or Tennessee (*P. tennesseensis*) dace? I would like to compile data on redbelly dace breeding habits. If you'd like to share information on this, please contact me at my e-mail address above.

Another interesting note: Six rosyface shiners (*Notropis rubellus*) collected on 25 May 2000, heavy with eggs, were placed in the same set-up. Within two weeks they spawned a single time over the gravel. Hundreds of non-adhesive eggs hatched in three days. The fry were fed the same as the redbelly dace, and were easy to raise. 