

POND CULTURE OF THE BLUENOSE SHINER *PTERONOTROPIS WELAKA*



Brian Zimmerman

A few years ago I was given a group of captive-raised Bluenose Shiners (*Pteronotropis welaka*) by Philip Kukulski, who has done quite well at breeding this species in captivity by keeping them with sunfish in large watering troughs and then removing the fry soon after hatching. I am much less attentive to my fish when they are outdoors during the summer. I thought that if I scaled up the concept of spawning this species in a natural setting to my 20'x 20' rubber-lined ponds (Figure 1), then removing the fry to avoid predation might not be necessary. Perhaps even more importantly, at least in my eyes, it would also require far less work than Philip's method. I tried this with the fish I got from Philip and I did, in fact, find a small group of five or so little Bluenose Shiner swimming in the corner of the pond late in the summer during a clean out of the pond. I had observed the Bluenose displaying spawning activity all summer long. This was not a successful enough result for me to be satisfied and to consider it a real success.

Fast forward to winter of 2014, when, by absolute dumb luck, I accidentally found some Bluenose Shiners in a small beaver impoundment near Brewton, Alabama, down a

dead-end street. I kept two dozen of these and decided to give them another try. This group was composed of young unsexable fish when I caught them in January, but males began to show their colors by late February or March. Again I was very lucky as my 24 fish turned out to be composed of 12 males and 12 females. I split them in two groups of six pairs in the spring and put one group in a pond with nothing but three pairs of Dollar Sunfish. The other six went into a pond with four Longear Sunfish (*Lepomis megalotis*) and a pair of Redear Sunfish (*Lepomis microlophus*). I saw the Bluenose very quickly show spawning behavior (Figure 2) over the Redear nest and then later in the summer over both a Longear nest in the same pond and all three nests of Dollar Sunfish in the second pond. The results in the two ponds could not have been more different. As the summer went on I continued to see spawning activity in both ponds, but no Bluenose offspring with the Dollar Sunfish. On the other hand, in the pond with the Redear and Longear nests there

Photos by the author unless otherwise indicated.

Brian Zimmerman has been interested in North American Native Fishes for almost his whole life. His father has photos of him playing in a stream at 2 years old. His clever parents interested him in reading by giving him fish books; he had no interest in other topics. In middle school he knew he wanted a career working with fish. In high school he focused on natives, breeding them in aquariums. He dug a quarter-acre wetland in his yard to breed Grass Pickerel (*Esox americanus vermiculatus*). He attended Heidelberg University in Tiffin, Ohio, double majoring in water resources and environmental biology. Before graduating he started Zimmerman's Fish, selling natives to fish enthusiasts. He continued his education at Bowling Green State University in Bowling Green, Ohio, receiving a Masters in Aquatic Ecology. His thesis research on Redside Dace (*Clinostomus elongatus*), was partially funded with a NANFA conservation grant. He has since worked for consulting firms and the Ohio Division of Wildlife, where he revamped the agency's fish identification webpage. He has since taken on a much greater task: revising the *Fishes of Ohio* by Milton B. Trautman.



Bluenose Shiner. Male (top) and female.



Figure 1. Brian Zimmerman and his ponds (Photos by Jenny Kruckenberg).

were hundreds of little Bluenose Shiners. I was cautiously excited when I first saw them, but wanted them to grow and also wanted this to be fairly hands-off on my part. As summer went on they continued to grow and by the end of the summer there was a healthy group of 300–400 Bluenose Shiners about one inch long (Figure 3) all over the Redear/Longear pond but not a single one in with the Dollar Sunfish despite the constant spawning activity over sunfish nests in both ponds. I plan to try these again in the spring and summer of 2015. I also left 25 young Bluenose in one pond outdoors to test their ability to survive an Ohio winter. The rest are now indoors and I am currently selling them to other native fish keepers. I plan to keep a large group of 30–40 young for myself to try again next year, probably in multiple ponds. I can only speculate why one pond worked so well and the other not at all. I am doubtful that the sunfish species made the difference, but maybe it was the timing. The Redear pair

spawned earlier and had actually wintered over in the pond while the Longears and Dollars spawned later and through the summer. Maybe that early spawn is what was so successful. I may try to get the Bluenose and sunfish out earlier next spring to see if this makes any difference. I hope to report back this time next year with another successful spawning account.

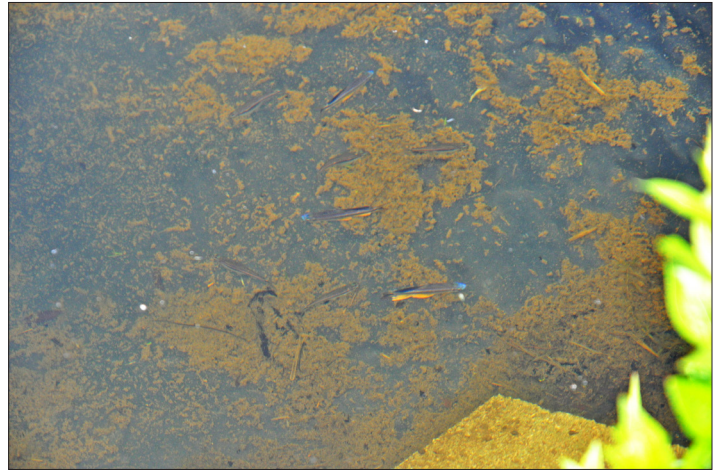


Figure 2. Bluenose Shiners spawning in pond over sunfish nest.



Figure 3. Young-of-the-year Bluenose Shiner.