

# The Bluenose Shiner, the Jewel of the Southeast\*

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by

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I had always thought of shiners as plain, silvery bait-fish with clear fins. Only in my wildest dreams could I have imaged what the bluenose shiner, *Pteronotropis welaka*, actually looked like. Such a fantastic fish could only come from a far-away place like New Guinea, the Amazon Basin, or the African riverine systems. Its scientific name, however, shows that it is clearly home-grown. *Pteronotropis* means “winged shiner”; *welaka* is for the town of Welaka, Florida.

Ever since I first saw a line drawing and a photograph of this fish in the book *Freshwater Fishes of Louisiana* by Dr. Neil H. Douglas, I knew that I had to become acquainted with it. Mark Tarride and I set off after this native gem and, after two or three excursions, finally got some for our tanks. Thanks to Mark’s extremely sharp eyesight (he saw just a glimmer of neon blue beneath the surface), we succeeded in capturing one of the most beautiful species in the world.

Although the bluenose has the typical elongated, slender body shape of a shiner, this jewel of the southeastern U.S. has several features which set it apart from the rest of its family members. Males of the species have long, flowing, dorsal and anal fins, and a large, forked

caudal fin. (Unfortunately for the aquarist, the females lack the elaborate finnage of the male.) Males, also, have a metallic copper-and-brass-colored overlay of scales on a black lateral stripe, the top of which is a thin lateral band of golden color. The fish’s dorsal color is charcoal black, and the male’s dorsal fin itself is black with bright yellow lines. The anal and ventral fins are bright yellow, highlighted with thin streaks of black. When fully flared, the dorsal and anal fins each form almost perfect circles. The ventral fins are the same color as the anal fin. The caudal fin is tipped with a thin stripe of yellow or white. As impressive as the fins are, however, the male’s most outstanding feature is arguably its neon-blue nose, the blue extending from the upper lip and head to just behind the eyes. Finally, a golden, metallic sheen highlights the operculum, pectoral fins and belly.

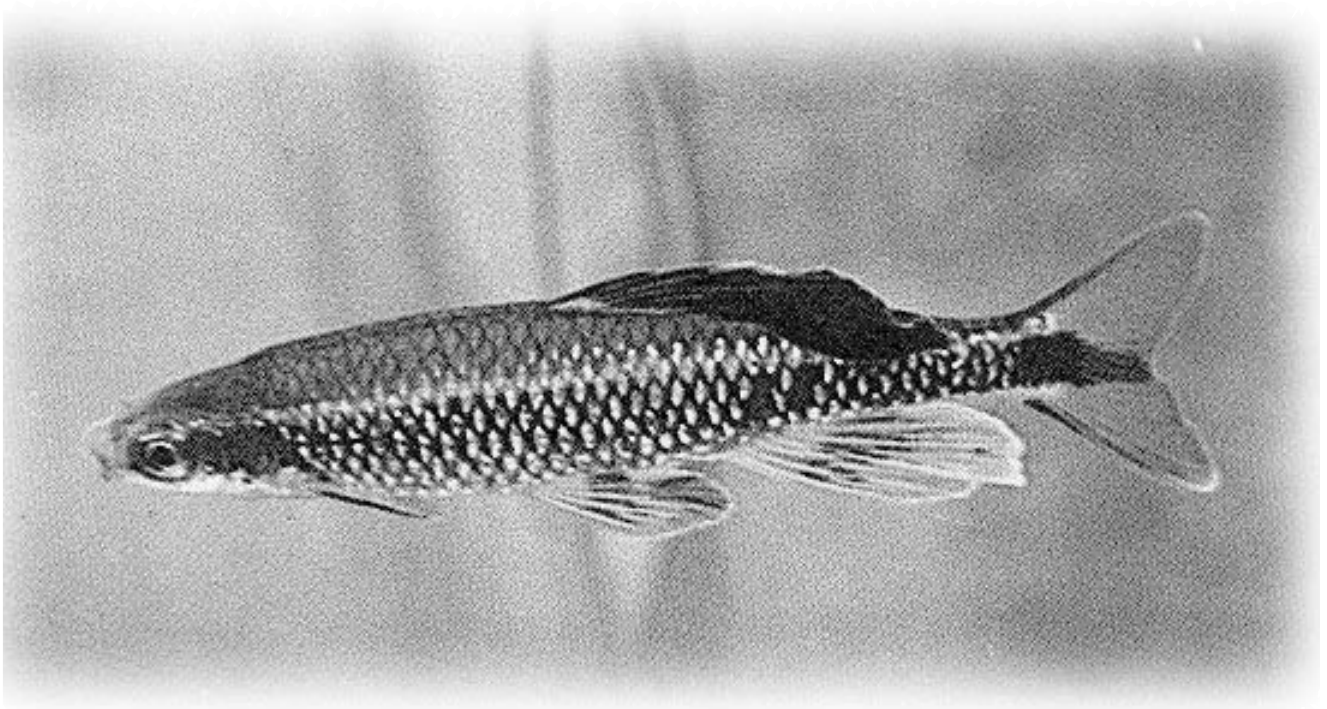
The bluenose shiner reaches a size of 2-1/2 inches, and I’ve found that they live from 2 to 2-1/2 years in aquaria. The fish typically inhabits moving streams (tannic-colored and/or spring-fed) throughout the southeastern states of Florida, Georgia, Alabama, Mississippi and Louisiana. Its habitat is usually heavily vegetated and of varying depths. In Louisiana, bluenose shiners are typically found where a shallow current breaks into a slightly deeper pool. In Florida, however, NANFA member Rodney Harper has observed them in deeper environs while scuba diving, at depths of thirty feet.

The bluenose shiner is found in very soft water, at a pH of from 6.4 to 7.0, often at a temperature of 50 to 78°F. However, in a home aquarium, I’ve found that while they will survive at a pH of 8.4 and a temperature

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\*On the behalf of myself and NANFA, I wish to thank two contributors to this article who have studied this remarkable native fish in the field: Dr. Steve Ross and Mr. Rodney Harper. I would especially like to thank Mr. Mark Tarride, who assisted in our search for this amazing fish in the Pearl River basin of Louisiana. I also wish to acknowledge Carol Johnston and Charles Knight for their efforts in studying this species.

Reference: ASIH June 13-19, 1996, 76th Annual meeting. Page 186 of the June 1996 ASIH Programs and Abstracts catalog, “Life history and behavioral ecology of the bluenose shiner.” A manuscript of this work is under review for publication.



The bluenose shiner, *Pteronotropis welaka*. Photo by Dick Stober, from the cover of *American Currents*, Vol. 5, No. 4, Oct.-Dec. 1977.

of 80°F, they will do best in conditions closer to those of their natural habitat.

In the wild, the species exhibits insectivorous feeding activity by quickly darting to the surface to devour any unlucky small insect that happens to fall on the water. Otherwise, they lie in wait for any morsel that may float their way in the prevailing current of the stream, thereby avoiding predation by wading birds. In captivity, the bluenose shiner readily accepts flake foods. Live foods are relished also and are especially useful when conditioning adults for spawning.

Spawning takes place in the spring, when adults form shoals in shallow areas to deposit their eggs into the nests of the longear sunfish, *Lepomis megalotis*. In fact, if you frighten a male sunfish away from his nest, bluenose shiners rush in and engage in a rapid, frenzied spawning which is over in a matter of seconds. I've observed the young of the year among the heavy shoreline vegetation in the warmer months of June, July and August.

In the aquarium, the males engage in a fins-flared, *Betta*-like display of their dorsal, ventral and anal fins, then rapidly circle each other in a 360° arc for several seconds. After this, the entire school of males and females may participate in spawning, scattering eggs all over the

substrate of the tank. Although the large dorsal, ventral and anal fins of the males are generally held in a relaxed, folded condition, males will briefly flick their fins open to entice any females to spawn. However, the males will only display their fully-flared fins to a rival male.

Although populations of this fish have been documented throughout the southeast, they are by no means common. Due to their distinct habitat preferences, they may be found only in a certain area of a drainage system, even though that system may cover an extremely large area.

The most serious threat to this species is habitat destruction. Clear-cutting and farming have had considerable negative impact on populations of *Pteronotropis welaka*, increasing the silt in many bodies of water. Clear-cutting, by depriving areas of needed shade, also raises the water temperatures beyond those which the fish can tolerate. Over-zealous aquarium collectors may also have a deleterious effect on local populations.

The bluenose shiner is listed as species of special concern in Florida. As when collecting any native fish, you should first check with officials in the appropriate state fish and wildlife agency to make sure that the species in the area you plan to collect are not endangered, threatened, or otherwise listed under protected status.