Bluenose shiner

*Pteronotropis welaka*

(Photo courtesy of D.G. Bass)

**Taxonomic Classification**

- **Kingdom:** Animalia
- **Phylum:** Chordata
- **Class:** Actinopterygii
- **Order:** Cypriniformes
- **Family:** Cyprinidae
- **Genus/Species:** *Pteronotropis welaka*
- **Common Name:** Bluenose shiner

**Listing Status**

- **Federal Status:** Not Listed
- **FL Status:** State Species of Special Concern
- **FNAI Ranks:** G4/S4 (Apparently Secure)
- **IUCN Status:** DD (Data Deficient)

**Physical Description**

The bluenose shiner is a smaller member of the Family Cyprinidae that can reach a body length of only 1.9 inches (4.8 centimeters). This species is an olive-colored ray-finned fish that has dark-colored dorsal (back) fins, and yellow pelvic and anal fins that are banded in black. Two distinct features of the bluenose shiner include a blue nose, a dark lateral stripe that runs from the
snout to the tail, and males that have well developed (in size and color) dorsal, pelvic and anal fins. The origin of the species common name comes from the blue nose that male adults have (Gilbert 1992, Florida Natural Areas Inventory 2001).

**Life History**

The diet of the bluenose shiner consists of insects and rotifers (microscopic aquatic species). (Osprey Data International, Inc. 2001).

Breeding begins in April and will increase in capability until September when breeding capabilities begin to decrease. To attract females during courting, two males will circle each other, positioning their body into a bow shape while displaying each of their fins at one the female. Spawning takes place over sunfish nests. Spawning actions were studied in Mississippi, and it was determined that females produce 55 to 190 eggs (Osprey Data International, Inc 2001, Bass & Hoehn 2010, Johnston and Knight 1999).

**Habitat & Distribution**

Bluenose shiners inhabit backwaters and river swamps to spring-run streams and are often associated with areas of aquatic vegetation and deep pools (Florida Natural Areas Inventory 2001, Gilbert 1992, Bass et. al. 2004). In Florida, there are two disjunct distributions, the St. Johns River basin and the western panhandle with no known occurrences between the St. Johns and the Apalachicola rivers (Gilbert, 1992). The first specimens were collected from the St. Johns River, near Welaka, in 1897 by William C. Kendall (Bass and Hoehn, 2010).

**Threats**

The bluenose shiner’s population is widely separated and isolated from each other, which makes it vulnerable to extirpation (local extinction) (Albanse et al. 2007). The Florida Department of Environmental Protection’s impaired waters data from 1998-2007 indicates that several of the sub-watersheds have elevated nutrients, which is a threat because of the decline in water quality due to the elevated nutrients. Land changes from agriculture to residential development may result in increased nutrients and turbidity (cloudiness of water caused by sediments), habitat loss, and increased use of water (Hoehn 1998). The panhandle of Florida’s population also faces threats from potential water reservoirs in the future, as they can cause water quality alterations and habitat fragmentation. Other threats include the non-native island apple snail. Grazing of
native aquatic vegetation by the island apple snail may lead to replacement by non-native aquatic plant species, which may not be used by the bluenose shiner.

**Conservation & Management**

The bluenose shiner is protected as a State Species of Special Concern by Florida’s Endangered and Threatened Species Rule.

- Biological Status Review (BSR)
- Supplemental Information for the BSR

**Other Informative Links**

- Encyclopedia of Life
- Florida Natural Areas Inventory
- International Union for Conservation of Nature

**References**


