



**Natural Heritage
& Endangered Species
Program**

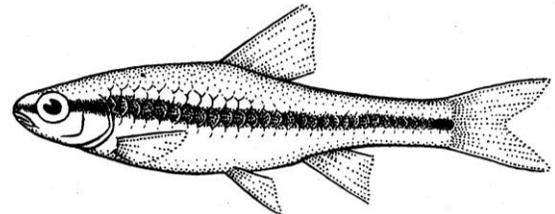
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Massachusetts Division of Fisheries & Wildlife

**Bridle Shiner
*Notropis bifrenatus***

State Status: **Special Concern**
Federal Status: **None**

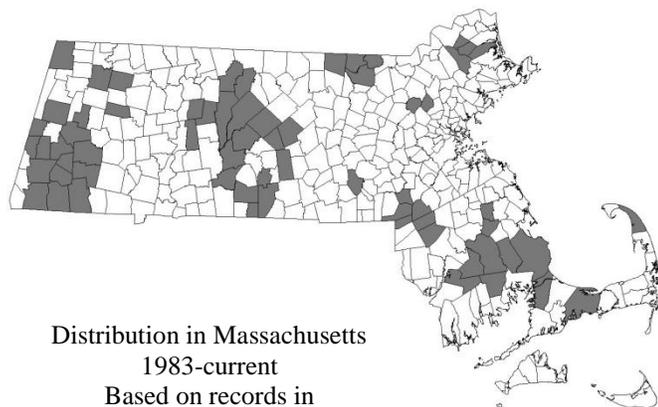
DESCRIPTION: The Bridle Shiner is a small minnow (< 50 mm) that is straw colored with a distinct dark lateral band that starts at the tip of the snout and ends in a spot at the base of the caudal fin. This minnow has a large eye and a somewhat pointed, slightly subterminal mouth. The scales on the sides of the body have distinct dark outlines. The breast is usually 90-100% scaled and the belly is fully scaled. The lateral line is generally incomplete. Bridle Shiners have 32-36 lateral line scales. They generally have 8 dorsal rays, 7 anal rays, 8 pelvic rays, and 12 pectoral rays. They have a silvery and lightly speckled peritoneum (lining of the body cavity).



Drawing by Laszlo Meszoly, from Hartel et al. 2002. Inland Fishes of Massachusetts.

HABITAT: Bridle Shiners are found in clear water in slack areas of streams and rivers and are also found in lakes and ponds. They are associated with moderate levels of submerged aquatic vegetation with open areas where they can school. Bridle Shiners seem to prefer sites with high coverage of submerge aquatic vegetation along the bottom 25 cm. In addition, sites with Bridle Shiner tend to have more aquatic vegetation with feather-like leaves such as *Ceratophyllum*.

LIFE HISTORY: The Bridle Shiner matures at a year and only lives for about 2 years. Spawning occurs during the day from late May to the end of July but may occur as late as August. Spawning sites are generally located in water depths of 0.6 m in clearings surrounded by dense submerged vegetation, such as *Myriophyllum* or *Chara*. Eggs sink and adhere to vegetation. Young of the year remain in vegetation until late July when they begin to school with other young of the year bridle shiners, and by August they join adult schools. Bridle Shiners are visual predators and feed only during the day. They feed in the water column or around aquatic vegetation; although before aquatic vegetation has started growing in the spring, they feed at the bottom. Their diet mainly consists of invertebrates, such as Chironomidae, Cladocera and Copepoda. Bridle Shiners are not good swimmers and are ideal prey for pickerel, bass, and perch species.



THREATS: Habitat alterations due to turbidity, flow alterations, draining of ponds, and exotic species are major threats to Bridle Shiners. Bridle Shiners are visual feeders and turbidity will decrease their feeding efficiency. Bridle Shiners are also poor swimmers and as such changes in flows can negatively impact their habitats. When exotic plants dominate and form large monocultures, this changes the Bridle Shiner's preferred habitat of vegetation with open areas.

Bridle Shiner Breeding Season

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Updated 2015

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

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Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

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