

Sabine Shiner

Notropis sabiniae

Guidelines for Landowners Using Conservation Practices

Missouri Department of
Conservation

Common name ▪ Sabine Shiner
Scientific name ▪ *Notropis sabiniae*
State status ▪ Endangered
Federal status ▪ None

Ecology

Sabine shiners have been found in streams from southeastern Missouri south to southeastern Texas. Populations in Missouri have historically inhabited large, moderately clear rivers with a sand and small-gravel substrate. They are typically found near sand bars in slight to moderate current. Sabine shiners live on or near the bottom of rivers and likely feed on aquatic insects and other animal life found on the bottom. They spawn during the summer and females produce at least 400 eggs. Adult Sabine shiners typically reach a length of 1.8 to 2.2 inches.

Reasons for Decline

Although there is no indication that Sabine shiners were ever more widespread in Missouri than they are currently, they were historically common where they were found. Improper and untimely sand and gravel removal, as well as habitat degradation due to agricultural runoff containing pesticide chemicals and waste from livestock, may damage current and potential habitat.

Recommendations

To ensure the long-term survival of the Sabine shiner in Missouri, it is important that current and potential habitat be protected. To do this, project activities in the Sabine shiner range should minimize impact to streams and riparian corridors. Efforts should be made to ensure our waterways are healthy through protection and/or restoration of habitat for this and other aquatic species.



Photo Credit: <http://www.fs.fed.us/r9/wildlife/photos/animals/>

Avoid constructing stream crossings. If unavoidable, culverts and stream crossings should be constructed with the same bottom elevation as the existing streambed to avoid restricting stream flow and obstructing fish passage. Bank stabilization materials should consist only of rock, clean broken concrete or similar materials free of pollutants, silt and extraneous debris including exposed rebar. Erosion and sediment controls should be implemented, maintained and monitored for the duration of a project.

Follow proper sand and gravel removal procedures outlined in the Missouri Instream Sand and Gravel Removal Guidelines prepared by the Missouri Departments of Conservation and Natural Resources. Guidelines include the following: leave a minimum 20-foot buffer zone between the water line and the excavation area, do not mine within 20 feet of streamside vegetation, and do not alter stream channels. In addition, do not remove gravel during the Sabine shiner spawning season (June 1 to July 31).

Limit clearing of vegetation, including standing and downed timber, to that which is absolutely necessary for construction purposes. Re-establish and maintain forested riparian corridors at least 100-foot wide along streams to reduce erosion and capture nutrient rich runoff. Discourage cattle from using streams and exclude livestock with fences to allow the area to naturally re-vegetate. Move watering areas into pastures and away from streams.

Refer to Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers.

Updated: September 9, 2008

Consider the balance between adverse and beneficial practices when determining the overall effect of a conservation practice.

Beneficial Practices

- Limit livestock access to streams.
- Protection and restoration of riparian corridors along streams.
- Nutrient and pest management on adjacent agricultural fields that results in reduced opportunities for contamination of runoff.
- Practices that control erosion and prevent the delivery of sediment to the aquatic system will prove beneficial to this species.

Adverse Practices

- Sand and gravel removal beyond the excess material on adjacent unconsolidated bars.
- Project activities that occur below the high bank between June 1 and July 31, the spawning period of this fish.
- Constructing dams and other impoundment structures on streams that host the fish.
- Improper erosion and sediment control.
- Culverts, fords, and stream crossings that restrict stream flow or create a barrier to fish passage.
- Unnecessary vehicle and equipment stream crossing.
- Removing or degrading the riparian corridor near springs and along streams.
- Unmanaged application of pesticides, animal waste or fertilizers.

Information Contacts

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Policy Coordination Section
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Jefferson City, MO 65102-0180
Telephone: 573-751-4115
<http://www.mdc.mo.gov/nathis/endangered/>

Missouri Department of Natural Resources
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102-0176
Telephone: 800-361-4827 / 573-751-1300
<http://www.dnr.mo.gov/env/index.html>

U.S. Army Corps of Engineers
Regulatory Branch
700 Federal Building
601 E. 12th Street
Kansas City, MO 64106-2896
Telephone: 816-389-3990
<http://www.nwk.usace.army.mil/>

U.S. Environmental Protection Agency
Water, Wetlands, and Pesticides Division
901 North 5th Street
Kansas City, KS 66101
Telephone: 913-551-7003 / 800-223-0425
<http://www.epa.gov/region7/>

U.S. Fish and Wildlife Service
Ecological Services Field Office
101 Park DeVillie Dr., Suite A
Columbia, MO 65203
Telephone: 573-234-2132
<http://www.fws.gov/midwest/partners/missouri.html>

Legal

The Missouri Department of Conservation prepared these guidelines for conservation practices with assistance from other state agencies, contractors, and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat.

Compliance with these management guidelines is not required by the Missouri wildlife and forestry law or by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.

“State Endangered Status” is determined by the Missouri Conservation Commission under constitutional authority, and specific requirements for impacts to such species are expressed in the Missouri Wildlife Code, rule 3 CSR 10-4.111.