



Best Management Practices for Construction and Development Projects Pallid Sturgeon *Scaphirhynchus albus*

Common name • Pallid Sturgeon
Scientific name • *Scaphirhynchus albus*
Federal status • Endangered
State status • Endangered

Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended to be used as a guide to manage habitat for a given species. If that is the goal, please contact the Department of Conservation for habitat management information. Because every project and location differs, following the recommendations within this document does not ensure that impacts will not occur to the species and additional information might be required in certain instances. Following the recommendations within this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

Ecology

The Pallid Sturgeon is a large, ancient fish limited to the Missouri River and Mississippi River drainage basins. The adult fish inhabit bottom areas of open channels that have strong current and firm sandy substrate. They may also be found along sandbars and behind wing dikes. Pallid Sturgeons feed on the bottom of the river and typically consume fish, aquatic insects, crustaceans, mollusks, worms, and the eggs of other fish. They are generally long-lived, possibly living as long as 41 years. Males reach sexual maturity at 5 to 7 years. Females are believed to first spawn at 15 to 20 years. Spawning behavior is thought to occur April through mid-June, when water temperatures reach a range between 55-70F.

Reasons for Decline

During the past several decades, populations of the Pallid Sturgeon have drastically declined. Over-harvesting may have been an initial cause of this. However, they are currently threatened primarily by habitat modifications from dam construction, channelization and navigation maintenance of major rivers. These changes destroy spawning areas, reduce food supply or access to food, and block the sturgeon's ability to move within the river. Dams disrupt flow rates, making downstream rivers less desirable for Pallid Sturgeon. Pallid Sturgeon can live and grow in reservoirs; however, reproduction has not been documented in reservoirs. Water pollution from rural and

urban development along rivers may also be a problem for Pallid Sturgeons. A more recent problem that may affect the future status of the Pallid Sturgeon is hybridization with shovelnose sturgeon.

Specific Recommendations

Habitat protection and restoration in the Missouri and Mississippi rivers and their main tributaries will be necessary to ensure the survival of the Pallid Sturgeon because these are the only sites that provide suitable habitat for these large river fishes.

- Channel island tips should not be altered in any manner since Pallid Sturgeon appear to show a strong affinity for this habitat.
- Channel alterations that limit or eliminate shallow, sloping bank habitat should be avoided.
- Dams and other impoundment structures should be prohibited in major rivers to prevent further altering habitat for the Pallid Sturgeon and other aquatic species.
- Avoid in stream work that disturbs the substrate or occurs in areas where juvenile and larval fish are found between April through mid-June.

General Recommendations

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

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or www.modot.mo.gov/ehp/index.htm for additional information on recommendations.

Information Contacts

For further information regarding regulations for development in rivers and streams, contact:

For species information:

[Missouri Department of Conservation](http://www.mdc.mo.gov)
Resource Science Division
P.O. Box 180
2901 W. Truman Blvd
Jefferson City, MO 65102-0180
Telephone: 573/751-4115

For species information and Endangered Species Act Coordination:

[U.S. Fish and Wildlife Service](#)
Ecological Services
101 Park Deville Drive, Suite A
Columbia, MO 65203-0007
Telephone: 573/234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176
Telephone: 573/751-1300, 800/361-4827

[U.S. Army Corps of Engineers](#)
Regulatory Branch
700 Federal Building
Kansas City, MO 64106-2896
Telephone: 816/983-3990

[U.S. Environmental Protection Agency](#)
Water, Wetlands, and Pesticides Division
901 North 5th Street
Kansas City, KS 66101
Telephone: 913/551-7307

Disclaimer

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal laws such as the Clean Water Act and the Endangered Species Act, and state or local laws need to be considered for construction and development projects, and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.