



# Best Management Practices for Construction and Development Projects Arkansas Darter *Etheostoma cragini*

**Common name** • Arkansas Darter  
**Scientific name** • *Etheostoma cragini*  
**Federal status** • Candidate  
**State status** • None

## 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 Arkansas Darter's range encompasses the Arkansas River drainage from northwestern Arkansas and southwestern Missouri westward to central Colorado. This includes sections of northern Oklahoma and southern Kansas. The species' range has contracted in some western and central parts of the multi-state region. In southwestern Missouri, Arkansas Darters are found within the Spring River basin where they inhabit shallow, clear, often spring-fed streams with gravelly or sandy bottoms or sloughs and other backwater areas of larger streams. They prefer slow currents in cool water with abundant watercress and other rooted aquatic vegetation. They feed on a variety of aquatic insects, especially mayflies, and some plant material. Spawning occurs in shallow water over a substrate of coarse gravel from mid-February to mid-July. Adult Arkansas Darters typically reach a length of 1.6 to 2.2 inches.

## Reasons for Decline

Although the Arkansas Darter was historically considered uncommon throughout its range, it has declined in abundance in some watersheds in western and central regions. It is susceptible to habitat loss resulting from irrigation diversions that lower the water table and reduce groundwater inputs to streams. Unrestricted livestock access, agricultural and urban

runoff, stream channelization, aquatic organism passage barriers, and other factors resulting in poor water quality and loss of aquatic and riparian vegetation may limit abundance and distribution of Arkansas Darters.

## Specific Recommendations

Given its association with spring-fed streams, healthy populations of the Arkansas Darter are an indication that groundwater supplies are at safe and sustainable levels. Without adequate underground aquifers, habitat for species such as the Arkansas Darter will be lost, as will water suitable for human consumption and other uses.

- No work should occur below the high bank of the stream between February 15 and July 15 to avoid disrupting spawning activity. Sand and gravel removal should adhere to approved methods.
- Changes to stream flow regimes should be minimized whenever possible. Creation of impoundments should be avoided and water withdrawals or other flow alterations should be minimized, especially during the spawning period and drought conditions.
- Springs, instream vegetation, and streambanks should be protected from damage due to livestock trampling or other activities. Springs and spring flow should also be protected from development, pollution, and diversions.
- Erosion and sediment controls should be implemented, monitored, and maintained for the duration of the project(s).
- For permanent road crossings, use of a clear-span open channel crossing may be more appropriate than placement of a culvert due to the potential of migration restriction for this species. If used, culverts should be appropriately sized for the stream and installed with floor at grade with the stream bottom.

## 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](http://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](#)

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.