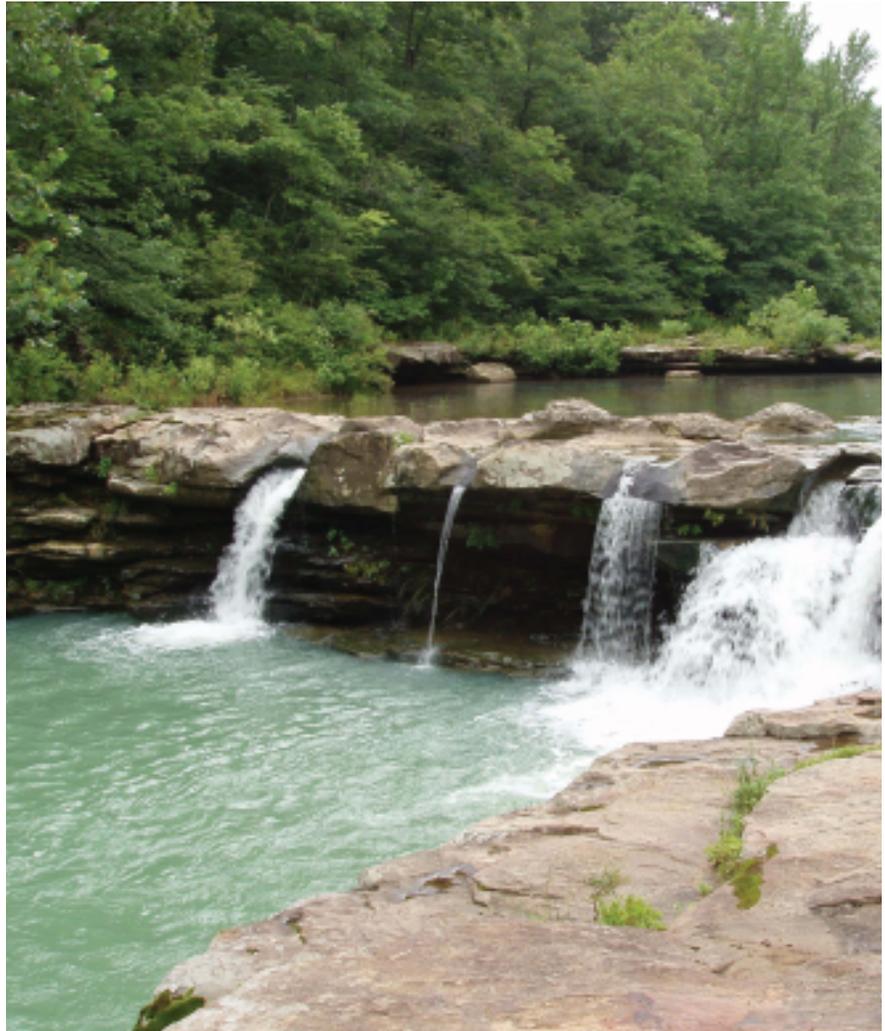


Ozark Rivers Program

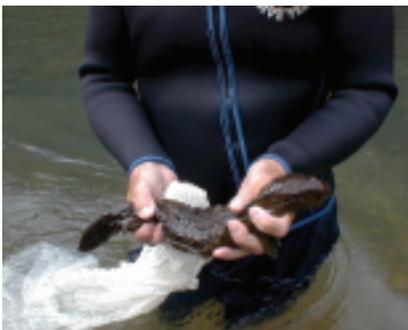
Ecological significance

It would be hard to imagine Arkansas' Ozark Mountains without clear, clean streams running through the region's forested valleys. Aside from their remarkable natural beauty, these mountain streams are an irreplaceable part of the landscape and the communities within it. They give life to the surrounding forests and to the plants and animals that live in them. Ozark streams are home to more than 100 rare aquatic animals, such as fish, crayfish and mussels, some found nowhere else on Earth. In Arkansas alone, Ozark streams and the reservoirs they form provide the primary source of drinking water for hundreds of municipalities and irrigation for a variety of agricultural uses. Tourism is the fourth-largest industry in Arkansas, and the Ozark Mountain region, renowned for its many fishing and outdoor recreational opportunities, is one of the most visited areas in the Natural State.



© The Nature Conservancy

The Kings River – a focus of the Conservancy's Ozark Rivers Program



© Arkansas Game and Fish Commission

The Ozark hellbender is a large, strictly aquatic salamander endemic to streams of the Ozark Plateau in southern Missouri and northern Arkansas. Both the eastern and Ozark subspecies have experienced marked population declines in recent years.

What the Conservancy has Done

In 1999, the Conservancy began an intensive program at the Strawberry River after a national study of rivers identified the stream as critically important for conservation based on biodiversity and imminent threats. The Strawberry watershed contains 108 fish species and at least 330 recognized classes of aquatic invertebrates.

Six species of fish, 16 mussels, one crayfish and one aquatic insect found in the river are listed as endangered or imperiled.

Historically, the watershed has been relatively pristine, prompting the State of Arkansas to designate it an Extraordinary Resource Waterbody. Over the past 20 years, though, increased sedimentation has signifi-

cantly degraded water quality in the Strawberry. In 2004, the Arkansas Department of Environmental Quality classified much of the river as impaired by sediment and the Conservancy expanded its efforts. While much work remains, the Strawberry River serves as the prototype aquatic project for the Ozarks. The Conservancy is already using cooperative landowner-based approaches developed at the Strawberry in its work at other Ozark streams, such as the Kings, Mulberry and upper Little Red rivers and Crooked Creek.

Threats

Land uses that threaten Ozark streams also threaten wildlife, drinking water and the economies that thrive because of the recreational benefits these streams provide. Affecting nearly all rivers across the Ozarks are sedimentation and nitrification associated with environmentally incompatible agricultural practices, such as cattle with direct access to streams, eroding stream banks, overgrazed pastures and the excessive application of poultry litter, all of which reduce water quality and destroy habitat. Sedimentation from unpaved roads also poses a major threat. These roads, usually not designed and built with sediment retention in mind, provide a direct conduit for sediment to enter streams. The Natural Resources Conservation Service estimates approximately one quarter of the sediment entering the Strawberry River comes from unpaved roads – a statistic that is likely similar for other Ozark streams.



© Arkansas Parks and Tourism

Ozark streams, like the Mulberry River pictured here, provide benefits to humans and animals.

Certain animals, such as the Ozark shiner, serve as the proverbial “canary in the coal mine,” responding negatively to decreases in water quality. When water quality continues to decline over extended periods, the number of overall species usually follows.

What the Conservancy is Doing

The Nature Conservancy, with support from Fred Berry and its other partners are working to ensure streams in the Ozark Mountains remain clear, clean and teeming with life. The Conservancy is hosting workshops and reaching out to landowners and public officials throughout the Ozarks utilizing its preserves to show that better management practices can

be both ecologically sustainable and economically viable. At the 1,457-acre Strawberry River Preserve and Demonstration Ranch, the Conservancy is showcasing restoration techniques and environmentally compatible grazing practices that can actually improve the economics of cattle operations (through increased productivity per acre) while maintaining water quality.

To address sediments from unpaved roads, the Conservancy promotes river friendly road maintenance practices. Demonstration projects and associated educational programs for county officials and their road crews have been created and are in place in an effort to reduce sediments from unpaved roads.