

The Paint Rock River Initiative

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Abstract. The three major tributaries to the Paint Rock River originate in Franklin County, Tennessee, and flow generally southward through Jackson, Madison, and Marshall counties in Alabama until the Paint Rock joins the Tennessee River. The Paint Rock River watershed in past decades was subjected to various impacts including channelization, agricultural runoff, sedimentation from erosion, and other point and nonpoint sources of pollution. The diversity of aquatic life in the system is among the highest in the southeastern U.S. The diversity of mussel and fish species in the watershed is greater (for its size) than any other watershed in the state of Alabama. Historically, the Paint Rock River drainage supported 51 species of mussels and 98 species of fish. Several species have been lost, but recent surveys have revealed the continued presence of 44 species of mussels and 90 species of fish. The Paint Rock River Initiative is a newly formed coalition of federal, state, and independent agencies and local landowners seeking to assist the watershed's recovery process through the use of federal, state, and independent funds to restore the riparian zone in impacted areas as a means of reducing flooding, erosion, and sedimentation, and preserving aquatic habitat.

Introduction

The Paint Rock River drainage in north Alabama and southern Tennessee (Figure 1) has been reported to support a high diversity of mussels and fishes (Ortmann 1925; Isom & Yokley 1973; Ahlstedt 1991; McGregor and Shelton 1995). Six federally endangered species of mussels (Ahlstedt 1991) and two federally endangered species of fish (Scott Mettee, pers. comm., October 1995) are known to occur in the Paint Rock River drainage. The Paint Rock River and some of its tributaries have been heavily impacted by stream channelization, erosion, and agricultural runoff (Ahlstedt 1991; Godwin 1995). The past 50 years have seen a decline in mussel and fish species within the system (Ahlstedt 1991). While historic surveys reported 51 mussel species and 98 fish species, recent survey efforts have reported the continued presence of 44 mussel species and 90 species of fish (Scott Mettee, pers. comm., July 1995).

Formation of the Initiative

In the fall of 1994, a group of federal and state agency representatives met in Woodville, Alabama, to discuss the restoration of the Paint Rock River system. Through a series of meetings over a period of several months, this coalition of agency representatives and local landowners came to be known as the "Paint Rock River Initiative."

Initially, agency representatives and landowners met to discuss what needed to be done in the

Paint Rock River valley. In a brainstorming session, participants were asked to provide answers to the following questions:

- What do you value about the Paint Rock?
- What concerns do you have about the Paint Rock watershed?
- What should be done to resolve these concerns?
- What problems do you see in resolving these concerns?

Numerous answers were provided, which were as diverse as the participants themselves.

During the meetings that followed, agency representatives met without the landowners to discuss strategy, funding, and other details. It was decided that we should pursue U.S. Army Corps of Engineers (USCOE) 1135 funds for restoration work as well as explore other funding sources. It was also decided that problem areas needed to be located and identified. The Alabama Natural Heritage Program (ANHP), under contract with the U.S. Fish and Wildlife Service (USFWS) to locate and identify nonpoint sources of pollution in the system, will be able to provide this information once their work is completed. This work will be accomplished by floating the mainstem of the Paint Rock River and the lower portions of its tributaries. The upper portion of the tributaries will be surveyed by walking. This ANHP survey seeks to pinpoint problem areas, including areas of serious erosion, massive mussel die-offs, discharge points, and so on. (Godwin 1995).

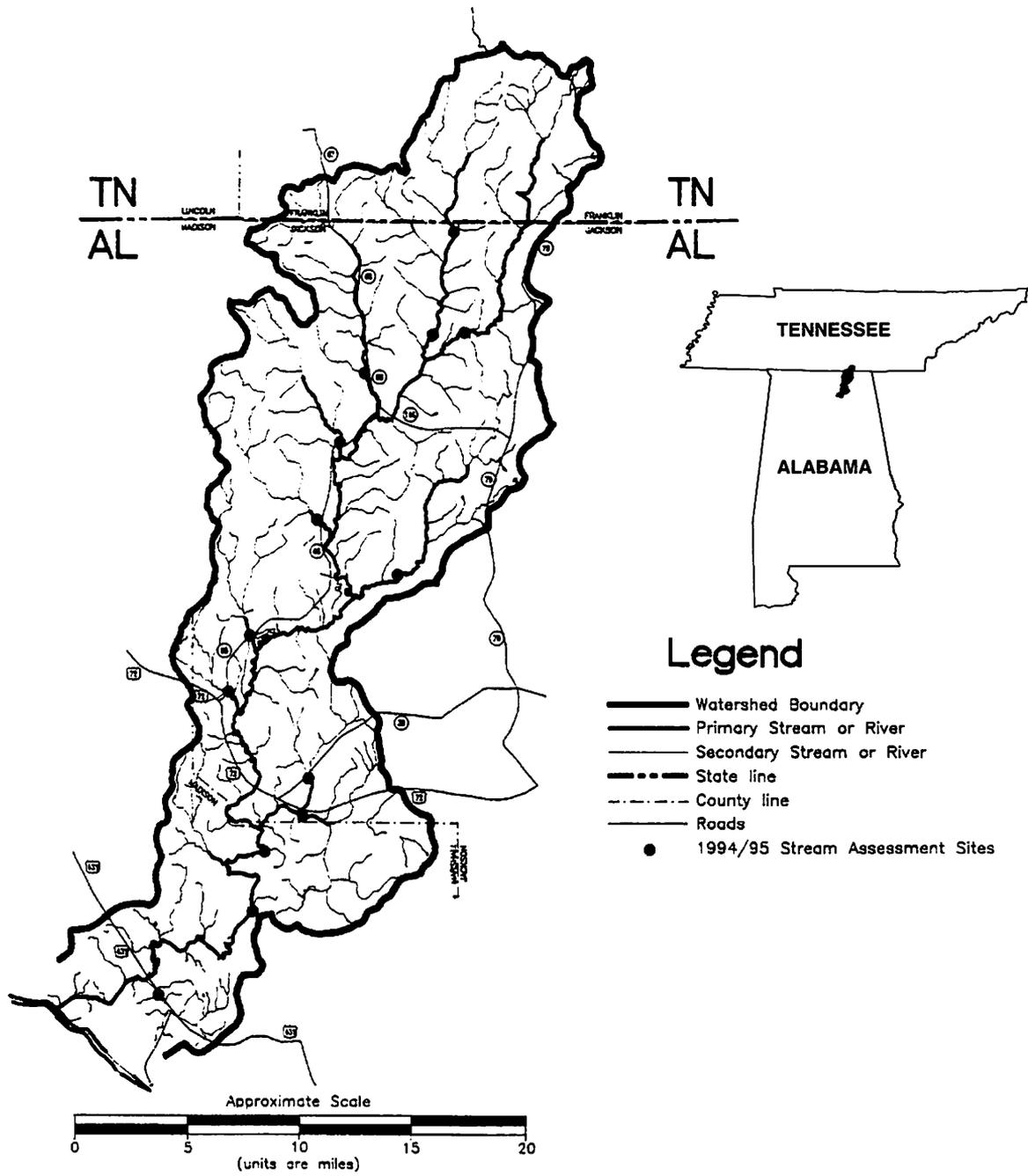


Figure 1. The Paint Rock River drainage in north Alabama and southern Tennessee.

Agency representatives felt the Paint Rock was worthy of restoration due to several ecological attributes: natural aesthetics, biodiversity, erosion control, and flooding control. Restoration will be accomplished primarily by reestablishing the riparian zone in impacted areas. Responsible agencies will secure a conservation easement from the landowners, seek to create a larger buffer zone for riparian habitat that would be spared agricultural use (this would probably have to be voluntary on the part of landowners), plant trees along what should be the riparian zone, and place rip-rap in areas of heavy erosion.

In April 1995, Jon Hornsby of the Alabama Department of Conservation and Natural Resources sent a letter of intent to the U.S. Army Corps of Engineers, Nashville District, in regard to the restoration of the Paint Rock River primarily in areas that were channelized by the USCOE during the 1960s.

The USCOE, Nashville District, appropriated 1135 funds for this restoration project. The USCOE 1135 funds will be limited to the impacted areas of previous channelization. The river system is restoring itself well, with the exception of stream bank erosion in areas where the riparian zone has been removed. The 1135 funds will be used to reestablish the riparian zone and the construction of rip-rap in

areas of heavy erosion. A grant secured by the Tennessee Valley Authority (TVA) will be used to do similar work in areas not covered by 1135 funding. Suggestions have been made to choose a tributary, such as Little Paint Creek, as a test area for 1135 funding in this system (Figure 2). Little Paint Creek was heavily affected during the 1960s channelization projects. The next step in the process will be the identification of sites in need of restoration.

Results

Jim Godwin presented his findings regarding present impacts of the Paint Rock River system at the August 1995 meeting of the coalition. The mussel survey I have been conducting is nearing completion with only 15 miles of stream remaining to be surveyed, including all of Larkin Fork and the lower 5 miles of the mainstem. Preliminary results show the continued presence of 44 species of mussels within the drainage. *Lampsilis virescens* has not been encountered live, but more than two dozen shells have been found. A living population of *Toxolasma cylindrellus* has been located near the Tennessee state line on Estill Fork, a reach of stream surrounded by land currently for sale and under



Figure 2. Little Paint Creek (tributary to the Paint Rock River) still showing scars of channelization of some 30 years ago.

consideration for purchase by The Nature Conservancy or Alabama's Forever Wild program (Jim Godwin, pers. comm., June 1995). *Fusconaia cor* continues to survive in the upper mainstem and occurs infrequently in some tributaries.

The Corps of Engineers hopes to begin restoration work by means of bank stabilization and reestablishment of the riparian zone in the near future. In December 1995 a local steering committee was formed to provide the future direction of the Initiative. Public hearings will be a format for education and consensus building. The agencies involved in the Initiative are to serve in a technical advisory capacity as needed. The efforts of the Initiative have received the attention of the local media. Numerous articles have appeared in *The Daily Sentinel*, Scottsboro, Alabama, and *The Huntsville Times*, Huntsville, Alabama.

Acknowledgments

Representatives of the following agencies have participated in the Paint Rock River Initiative: Alabama Department of Conservation and Natural Resources; Alabama Department of Environmental Management; Alabama Department of Transportation; Alabama Natural Heritage Program; Auburn University; Barry A. Vittor and Associates, Inc.; Central Elementary School, Madison County; Geological Survey of Alabama; Nature Conservancy of Alabama; Tennessee Natural Heritage Program; Tennessee Valley Authority; U.S. Army Corps of Engineers; U.S. Department of Agriculture, Natural Resource Conservation Service; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; Woodville High School, Jackson County, and representatives of Jackson, Madison, and Marshall counties in northeast Alabama. Additionally, numerous landowners have participated in the meetings of the Initiative. Watershed maps were prepared by the Tennessee Valley Authority, Chattanooga, Tennessee. Ellen Hammond of TVA was the driving force behind the formation and continuing operation of the Paint Rock River Initiative.

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