

Stewards *of our* Streams

Why taking care of our streams
is so important to Alabama's future



Photo by Dr. Guenter Schuster

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Did you know that Alabama has more different kinds of freshwater fishes, mussels, snails, and yes, crayfishes than anywhere else on the planet? Chances are you probably didn't, but right here in our own backyard, Alabamians can now boast of being Number One in more than just football. From the cascading streams of the Tennessee Valley to the slow lumbering rivers of the Mobile Delta, we have more than 310 different species of freshwater fish, 180 mussels, 160 snails, and 85 crayfish. Wow, these numbers still amaze me every time I rattle them off! In fact, some water bodies such as the Paint Rock River and the Cahaba River themselves have over 100 species of fish.

Maintaining this wonderful diversity is sometimes a challenge, but it is the responsibility of every citizen to recognize what type(s) of activities might influence it. Whether you're a large timber producer, a farmer, or even someone who lives in a subdivision in town, we all share this responsibility and are accountable for our actions that affect streams and water quality. The hard part sometimes is actually recognizing what these responsibilities are and what the consequences – and benefits – can be.

For example, in the North River watershed in Tuscaloosa and Fayette counties, we have discovered that reducing the amount of sediment from dirt roads that wash into streams during rainfall



Photo courtesy of USFWS

Photo courtesy of USFWS



Before



After



Slackwater darter

Conservation Fisheries, Inc

events can significantly reduce water treatment costs for municipal water suppliers. This reduction in sediment not only helps produce an economic benefit for the citizens of small towns such as Berry, Alabama, but also provides an important service for the freshwater critters that live in the streams. Freshwater mussels need clear water because of their elaborate spawning ritual. As I mentioned above, there are over 180 different species of mussels in Alabama and each one of these species has what we call a “preferred host fish species” that is required to be present during spawning. Therefore, when streams flow muddy because of runoff from a dirt road or from some kind of discharge pipe, this unique reproductive strategy can be inhibited.

The Town of Berry was able to reduce annual chemical costs to remove sediment by 46 percent.

Other impacts that often go unnoticed might be a poorly designed road culvert or an old dam that no longer functions as it was initially intended. Yes, old mill dams might seem to be permanent and historic features on the landscape, but these types of structures can result in backing up water and may even cause flooding at times. They can also be a hazard to those of us who enjoy canoeing or kayaking, and they can provide a barrier to fish during their migration runs.

An example includes culverts in Limestone County [photos above] that were replaced to allow a small fish called the “slackwater darter” (*Etheostoma boschungii*) to complete its spawning migration. For most of the year, this rather mundane little fish

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lives under stream banks and rocks, but come December, males get on their best spawning garbs and begin migrating great distances in search of the perfect spawning area. These areas consist of small, headwater seeps – sometimes overlooked by the casual observer – and are often in the middle of a field, pasture, or even a backyard. The desired area is always wet and contains certain types of wetland vegetation that is used to attach the eggs. So, without clear passage from the river to the spawning ground, this little fish would not be able to reproduce.

Another example of a barrier was in St. Clair County at Big Canoe Creek. Goodwin's Mill was a large mill dam constructed in the late 1800s by local residents for grinding corn and other grains of the day. The old mill house was deconstructed in the 1940s and all that remained were the crumbling remnants of the dam. Like the culverts in Limestone County, Goodwin's Mill Dam was a barrier to fish . . . it restricted the distribution of mussels, and it was a hazard to canoeists paddling down Big Canoe Creek. It was also causing significant erosion to the property of a downstream landowner. Thanks to the willingness of a couple of key landowners, the old dam was removed in 2013 and the natural functions of the stream are now restored [photos below and right].

Being able to identify these types of projects, especially on private lands, is paramount to the health of our rivers and our economy. Unlike Western states where large tracts of land are in federal or state ownership, over 90 percent of the land in Alabama is in private ownership, and most of that is in some form of silvicultural management. Therefore, for the U.S. Fish and Wildlife Service to fulfill its mission, we must be able to work effectively with private landowners. Unfortunately, the public often shy away from voluntarily coming forward to the Service with project ideas due to the negative perception associated with environmental laws and regulations. Here in Alabama, we'd like to change that perception because we fully recognize that without the support of private landowners and communities, we will never be successful at protecting our water resources and critters, and Alabama will never maintain that number one status with which we have been so richly blessed.

The U.S. Fish and Wildlife Service offers programs as well as technical expertise to assist private landowners, and it works with communities and businesses to improve habitat and conditions in streams. There are also incentive programs that can often provide funding to assist with projects. If you would like to discuss a potential project or just talk about a unique freshwater species on your property, please contact me at (251) 441-5858. 📞

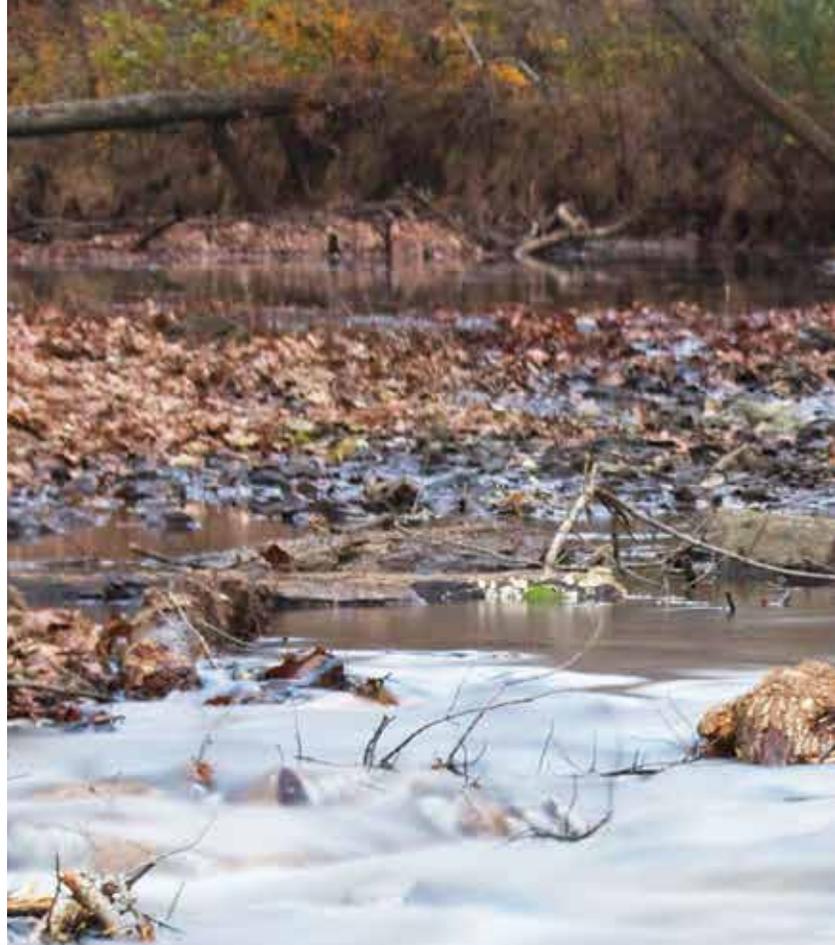


Photo by Frank Chitwood

