



Current Events



The Newsletter of the Arkansas Stream Team

Volume 14, Number 2

April – June 2010

News from Region I (Ozark Highlands and Boston Mtns.) Stream Team Coordinator, Dave Evans...

Spring has sprung, fall has “fell,” summer’s here, and it’s...well, it’s pretty hot up here in the Arkansas hill country. As far as the streams up here are concerned, most of them are at, or below, normal flow levels, and they are trending down. About the only one that’s anywhere near a normal flow level is the Kings River near Berryville, and even it is slightly below normal, as of today (June 25). This could change, however, in the event of heavy summer thunderstorms.

The last few months I’ve spent time working on a couple of different projects in Carroll County. One is on Long Creek near Alpena, and the other is on Mill Branch in Berryville. I’ve already mentioned the Long Creek project, so I’ll discuss the Mill Branch project this go-around.



Cross-Vanes in Berryville

Mill Branch is formed by two springs that originate in downtown Berryville. It flows through a city park, and continues through town toward Osage Creek, and eventually to the Kings River. The Kings River Watershed Partnership received an EPA grant through ANRC (Arkansas Natural Resources Commission) and from the AGFC Stream Team Mini-Grant Program, to do a streambank restoration project along a 900-foot section of the creek. The construction was begun in April, and is about half-way completed.

This project involved the installation of approximately eight rock cross-vanes, and the sloping and planting of the banks. The cross-vanes are basically two rock vanes that are joined in the middle to complete a structure that spans the entire channel. As with a rock vane, the cross-vanes' upstream pointing arms slope down from the bank, toward the middle of the channel, where they are joined by a cross member. Because of the extensive amount of exposed bedrock in this stream, a number of the rocks forming the vanes had to be nailed down to the bed to keep them from moving. This was accomplished by drilling a one-inch hole through the rock and into the bed approximately 10 inches. A one-inch diameter steel rod was then driven through the hole and into the bedrock.

Once the structure's upstream side is plugged with sediment, the water should flow over it in a 'waterfall' fashion. In fact, this has already begun to happen on several of the structures. (See photographs of rock cross-vanes on page-one of this newsletter.)

In mid-April, I attended a free training course in Kansas with Dave Derrick, a U.S. Army Corps of Engineers engineer, who is one of their top stream restoration people. This training actually involved the installation of a project along a small creek that runs along the base of an earthen dam. This is one of only two trout streams in all of Kansas.

During this training I learned how to perform a habitat enhancement technique I had heard about, but never seen. This practice is called "locked logs" and, in my opinion, it holds a lot of promise for use in my future projects. It involves placing large trees along the base of a bank, and anchoring them in place with rocks. The trees point downstream, and provide cover for fishes and bank protection.

We have just begun working on a bank stabilization project at the Fred Berry Conservation Center at Kelly Slab, on Crooked Creek near Yellville. The majority of the construction on this project involves the installation of a LPSTP (Longitudinal-Peaked Stone-Toe Protection), and a few rock vanes. In addition, several trees located within the project area will be used to create a section of locked logs. A hole will be dug in the channel bed, between the LPSTP and the bank, and this hole will hold a portion of the root wad. The tree will be angled downstream and, after being placed in the creek, the LPSTP will be built over the trunk. The flood bench, that is to be built between the LPSTP and the bank, will bury a portion of the trunk and help secure the tree in place. The vast majority of the tree will extend beyond the outer edge of the LPSTP, and will provide a lot of habitat for a variety of fishes. This will also help reduce the velocity of the creek in the near-bank area, and add to the long-term stability of the project.

The EAST Lab (Stream Team) at Mountain View High School recently received a grant to purchase film equipment, in addition to having received extensive training in how to use the equipment. They spent two days filming some of their cohorts learning about stream water quality sampling. The next three days were spent editing the resulting footage, and preparing it for presentations to various local governmental organizations.

It appeared as if everyone involved had a good time, and actually learned something. Of course, what's not fun about a long, hard day spent in summer school?



So, this is summer school?



Is this the next Steven Spielberg?

**News from Region III (Gulf Coastal Plain)
Stream Team Coordinator [currently
vacant]...**

The Region III Stream Team Coordinator position is currently vacant due to budget cuts. Andy Turner (former Region III Coordinator) is now serving as the Region IV Stream Team Coordinator, after Jim Ahlert's retirement. The Region III news will continue once this position has been filled.

News from Region IV (Ouachita Mountains and Arkansas River Valley) Stream Team Coordinator, Andy Turner...

The second quarter of 2010 has come to a close with current projects progressing, new projects getting under way, several educational events, and even some time off for recreational fishing. Current project work has included additional tree planting at Lake Saracen in Pine Bluff and along the Caddo River in Caddo Gap. Our project in DeQueen has begun construction on the first phase, which involves moving part of the stream that has eroded into areas containing city plumbing and electrical systems. Educational outings were made with groups from St. John's school in Hot Springs, a *Master Naturalist* class from Russellville, several school groups at the annual Youth Outdoor Expo, and a school group from Bella Vista. Planning has started to assist the 4-H Center in Ferndale to further implement the Stream Team Program into the 4-H educational curriculum.



Big Pike from my Canada Fishing Trip



Catfishing on the Arkansas River

At Lake Saracen, we planted, with help from the district biologist (Diana Andrews), over 100 cypress trees around the banks and islands of the lake. As the trees grow they will benefit the lake and its users in several ways including: aesthetic benefits, fish habitat, and soil stabilization. In Caddo Gap, we planted trees along the Caddo River at the Shepherd stabilization site. These trees and shrubs will help to further stabilize the previously eroding banks, and provide stream shading which is important for many aquatic and terrestrial species. The rock vanes built at the Shepherd site have held-up well, and the additional habitat has attracted many fish to the area. While planting the trees and shrubs, we witnessed many longear sunfish on spawning beds and numerous bass hanging around the vanes looking for an easy meal.



Trees and shrubs planted at Lake Saracen to assist in bank stabilization.



Trees and shrubs planted on the Caddo River to assist in bank stabilization.

In DeQueen, we are getting started helping the city park folks as they renovate the Herman Dierks Memorial Park. As the city updates its recreational facilities, they are also looking to remedy the issues they are having with the small intermittent stream that runs through the park. The main issues are erosion and close approximation to electrical and plumbing systems. In order to remedy these problems, we are going to stabilize actively eroding sections of the stream and relocate a small portion of the stream. We are doing this work at a low-flow period in which the stream will be almost completely dry. This way, we can prevent any additional sediment input downstream of the work area. In the end, this project should produce a more aesthetically pleasing area for the citizens of DeQueen, while reducing sediment runoff to downstream reaches.



DeQueen Project Pre-Construction



DeQueen Project Mid-Construction

With the end of the school year and arrival of warm weather, many educational outings were made with student and adult groups from all over the state. Sister Carol Anne, from the St. Johns school in Hot Springs, is a very active member of the Stream Team Program. I spent two days with her students teaching them about streams, and the critters that live in them. In Russellville, an adult *Master Naturalist* group has joined the Stream Team Program, and will be monitoring Illinois Bayou near Dover. This team is lead by Debbie Taylor, and is a great addition to the Stream Team Program. I also participated in the Outdoor Youth Expo, which is sponsored by the Education Division of the Arkansas Game and Fish Commission. They were nice enough to invite me to be part of this event, which had a great turnout, and introduced many school groups to the Stream Team Program. Finally, the 4-H Center in Ferndale is going to make the Stream Team Program a part of its regular curriculum. We are working with Joel Gill, who coordinates these programs at the 4-H Center, to provide funding for the necessary equipment. This will be a ‘win-win’ for both the Stream Team and the 4-H Programs, so we are moving as fast as we can to get started.

News from Region II (Delta) Stream Team Coordinator, Stephen O’Neal...

The second quarter for 2010 has been jam-packed in Region II with litter pickups, water quality monitoring, mini-grant presentations, educational programs, and river/stream surveys. The Stream Teams did not let the summer heat slow down the progress towards keeping an eye on water quality, increasing fish habitat, decreasing streambank erosion, and helping to keep our rivers and streams in a “Natural State.”

The *Redneck Stream Team* did double-duty with a thorough pickup of the main creek system flowing through Searcy, known as Gin Creek. The creek has been historically treated as a dumping area but, in recent years, is being seen more as an important part of the local biological system (as seen in the below photograph). The team removed several bags of debris from the creek, along with a shopping cart and a car bumper (circa 1994) — wonder how those got into the system?



**Searcy — Gin Creek clean-up
(Redneck Stream Team)**

We can all benefit from the efforts provided by this team, and learn a lesson from them as well: No matter how big or small you are, your efforts will make a difference, and it is never too late (or early) to start a good stewardship mindset. The team also performed water quality testing from a chemical perspective, and found that the parameters measured were all within an acceptable range. The test results on this creek are showing that the info the teams have collected on Gin Creek appear to be taking a slightly better turn towards lower nitrates, orthophosphates and total dissolved solids, and higher dissolved oxygen levels. Biological testing will occur in the springtime, and the group looks forward to seeing if the biotic community reflects the perceived improvement. This is a sharp and diligent group of “Teamers,” and they deserve a big “thank you!”



The White County Redneck Stream Team gathers near Gin Creek (in White County) to do some bug kickin’ (and taking names!).



Take a closer look at your local stream, and you will discover that there is more to a creek than just water!

You can get your team started performing water quality testing on your local stream or creek too. Shown below is some of the water quality testing equipment in our ongoing effort to improve water quality in the state. Conducting water quality analysis is a great way to get to know your stream, and it helps us in our long-term effort to maintain proper water quality, and also be alerted to any sudden change in water quality. “We all live downstream,” and so the effects of poor water quality in the system are soon felt by all of the stakeholders — conversely, the effects of good water quality are felt by all in the aquatic system as well (including the biotic and human components).



Water quality testing equipment can be purchased with mini-grants through the Arkansas Game and Fish Commission's Stream Team Program. Ask your local Stream Team Coordinator how you can get involved and “Get Your Feet Wet.”



Planting trees in a bare riparian area will improve the overall health of the aquatic system. This work will provide habitat for terrestrial animals like quail, deer, turkey, songbirds, and all sorts of small, furbearing animals, and my personal favorites — herps. If you are not familiar with the term (herps) call me at 501-351-6208, and we will talk!

This hard working group in Little Rock (previous photograph) worked diligently to establish streamside vegetation; with the concept that the trees would eventually shade the creek, increase biotic life in the creek, and provide biomass from the trees, themselves, to the aquatic system. They shade the waterbody, thus decreasing water temperatures, increasing dissolved oxygen levels, and increasing the fishery of the local creek.



Sometimes you just gotta throw in a picture that epitomizes one of the reasons why our teams work so diligently throughout the summer to improve our water quality, fisheries habitat, and the local aesthetics. Caleb (my son) shows his gratitude to the 2 lb. 15 oz. crappie he caught in a nearby farm pond. The pond is not fed by a stream, BUT its overflow feeds into a small drainage, which feeds into a small ditch, which feeds into a creek tributary, which feeds into Cypress Creek, which feeds into.....well, you get the picture. We all live downstream of someone else, and it's our responsibility to keep our "little corner of the world" in good shape, knowing that someone (or some thing) downstream will be the beneficiary of our stewardship paradigm.

**Thank you Arkansas Stream Teams
for all you do to help us!**



HAS ANYTHING CHANGED?

Please let us know if your address, phone numbers or e-mail information has changed.

Name: _____

Address: _____

City, State, and Zip Code: _____

Home Phone: _____ Work Phone: _____

E-Mail: _____

Mail to: Stream Team Coordinator
2 Natural Resources Drive
Little Rock, AR 72205

(OR)

E-Mail to: sfilipek@agfc.state.ar.us

For those reading a Stream Team newsletter for the first time, Stream Teams are groups of citizens from 6 years old to 96+ who care enough about Arkansas' water resources to form or join a team and adopt a stream or other water body in the state for the purpose of keeping it clean and healthy. Started in 1996, there are now over 500 Stream Teams statewide that carry out a variety of activities in the quest of keeping our state's water more natural. These teams conduct litter pickups, repair eroding streambanks on willing owners' land, plant trees to restore degraded riparian areas, work with local leaders to better manage their watersheds, and a variety of other activities aimed at conserving one of the most valuable of Arkansas' natural resources, its water. Anyone out there who hasn't already joined this winning team and is interested in joining the Stream Team, or learning more about this grassroots way to conserve our state's water resources, can contact Steve Filipek at the AGFC (501) 223-6371, or e-mail him at sfilipek@agfc.state.ar.us. There is no cost to join. Classes on how streams work, what animals live in and around them, and how a healthy stream functions, are offered each year at a reasonable rate.



NEWSLETTER AVAILABLE VIA E-MAIL.

In an effort to conserve resources, Stream Team members with current e-mail addresses were notified of the option to receive the newsletter via

e-mail. If you have not received an e-mail notification and would like to receive the newsletter via e-mail, please notify Steve Filipek at sfilipek@agfc.state.ar.us, or at (501) 223-6371.

► **NEWSLETTER UPDATE:** *Easier access (a direct link) to the Stream Team Newsletter has been made available on the Internet: <http://www.agfc.com/streamteam>*

Stream Team Name: _____

Activity Sheet

Stream Team #: _____

[illegible]

The Process of becoming a STREAM TEAM...

1. Express an interest and request more information: **Send your name, address, and phone number to:**
STREAM TEAM PROGRAM COORDINATOR

Arkansas Game and Fish Commission

2 Natural Resources Drive

Little Rock, AR 72205

2. Sign up. You will get the newsletter and be counted among Arkansas' STREAM TEAM members. This will also get you in the network of those wanting to help out Arkansas' waterways.

3. Adopt a stream. To become more involved in the program you can adopt a stream. Select a stream that you or your group are particularly concerned about. For example...the creek on your land, your favorite fishing hole, or the stream you drive over every day to work or school.

A. Inventory your stream with help from STREAM TEAM coordinators.

B. Decide what you want to do---trash pickup, habitat improvement, water quality monitoring, and/or whatever is of interest to you!



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2 Natural Resources Drive
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TO: