



Current Events



The Newsletter of the Arkansas Stream Team

Volume 14, Number 1

January – March 2010

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

2010—and we are 25% through with the “New” Year already—unbelievable!

Searcy students from Ahlf Jr. High School in Mrs. Mary Cook’s class spent a chilly February morning performing their very first water chemistry sampling on Gin Creek which runs through the middle of Searcy. They found that cold water has the ability to retain a higher level of dissolved oxygen for macroinvertebrate benefit, as well as the local fishery. The students also collected nitrate, orthophosphate, pH, turbidity, hardness and TDS. (If you want to know what “TDS” is, call me at 501-351-6208 to discuss and to ask about setting up your own team to collect water quality data.)



The Ahlf Jr. High in Searcy gets a precursory presentation from the Region II Stream Team Coordinator as they prepare to hit Gin Creek and perform some water chemistry analyses.

The Harrisburg EAST Lab students collected water quality samples from Lake Poinsett. This was their first opportunity to work with their newly acquired HACH water quality testing kit. The kit was purchased via a Stream Team Mini-Grant that the school submitted. The school will use the opportunity to learn about local Lake Poinsett water issues, and will also be testing the tributaries coming into the lake to determine if any land use practices in the area may be affecting the general water quality in the lake itself. Many hypotheses have already been formed based on casual observations, but now the true science behind the water will be revealed as the school begins to formulate their data set.



You, too, can jump in and “get your feet wet” with the Arkansas Stream Team—like Zack from Harrisburg EAST Lab is doing here at Lake Poinsett.

Several site visits have been conducted during the first quarter, as well, and they are all under review for habitat improvement consideration. If you know of a landowner who could use some assistance in an erosion problem, or other riverine-related issue, please have them call your local Stream Team Coordinator.

**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.

NOTE: *The following news release (article/picture) was provided by Amy Wilson, Director of Public Affairs, Beaver Water District:* News Release---Beaver Water District Receives Grant Funding (March 18 2010) For information: Amy Wilson, 479-756-3651 / awilson@bwdh2o.org

Beaver Water District Receives Stream Team Grant

(Lowell, AR) -- Beaver Water District has been awarded a Stream Team Grant in the amount of \$5,000. Steve Filipek of the Arkansas Game & Fish Commission (AGFC), who serves as the State Stream Team Coordinator, presented the check to Beaver Water District on March 17.

The Arkansas Stream Team Program, administered by AGFC, is an opportunity for concerned citizens to get involved in river, stream, and watershed conservation efforts. Through education, stewardship, and advocacy, the program encourages safe use of Arkansas' streams, rivers, springs, and bayous. Stream Teams help control litter, work on streambank stabilization projects, improve fish habitat, and monitor water quality.

Audubon Arkansas is partnering with the District to help manage the program. The mini-grant will be used to develop a network of Stream Teams within the Beaver Lake watershed. The coalition will be able to share resources such as monitoring supplies, waders, kick nets, etc., and also facilitate meetings of all the active Stream Teams through the Citizens Studying Streams program, which is in its second year.

"We are excited about the program and grateful for the grant," said Amy Wilson, Director of Public Affairs for the District. "The funding will help us leverage resources through a cooperative information exchange in the form of a fall networking event. We also will create a Facebook page to bring the groups together electronically for more efficient information sharing. In addition, we will encourage Stream Teams to visit our LEED Gold certified Administration Center in Lowell to broaden their knowledge of water sensitive design and landscaping."

Beaver Water District supplies drinking water to more than 250,000 people and industries in Fayetteville, Springdale, Rogers, Bentonville, and surrounding areas. These cities then resale the water to surrounding towns and communities. The District's mission is to serve our customers in the Benton and Washington County area by providing high quality drinking water that meets or exceeds all federal and state regulatory requirements in such quantities as meets their demands, and is economically priced consistent with our quality standards. For more information, visit www.bwdh2o.org . Audubon Arkansas is a state program of the National Audubon Society. A 501(c)3 organization, Audubon Arkansas has a state office located in Little

Rock and a Northwest Field Office located in Fayetteville. Audubon Arkansas' mission is to conserve and restore natural ecosystems, focusing on birds, and other wildlife and their habitats, for the benefit of humanity and the earth's biological diversity. For more information about Stream Teams, visit www.agfc.com or call (501) 223-6369.



On March 17, Steve Filipek (left) of the Arkansas Game and Fish Commission presented Brad Huffhines of Beaver Water District with a check for \$5,000 from the Arkansas Stream Team Program. Joining them was Michelle Viney of Audubon Arkansas, which is partnering with the District to develop a network of Stream Teams in the Beaver Lake Watershed via the Citizens Studying Streams Program. The photograph was taken at the District's new LEED Gold Certified Administration Center, in Lowell, where process water is reused in the water feature which resembles a natural creek, seen in the background of this photo. (Photograph courtesy of Beaver Water District.)

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

The first quarter of 2010 has continued to keep the Stream Team busy, and the recent warm weather has provided some beautiful days on the river. We have completed a project on the Caddo River, and also started several new stabilization projects on the Fourche La Fave River, Boldon Branch of the Little Missouri River, and Short Mountain Creek just below Paris Park Lake. A Girl Scout troop (from Floral, Arkansas) also joined me to learn about streams and the aquatic macroinvertebrates that call streams "home." All-in-all, it has been a productive quarter, and we are looking forward to the warm weather the next quarter is sure to bring.



Arkansas River at Dusk



Downstream rock vane: encourages deposition, creates biotic habitat, and directs flow away from eroding streambanks.

Tom Shepherd, a landowner with an eroding streambank along the Caddo River, has finally had weather sufficient enough to complete his stabilization project located just below DeGray Lake. Tom has been attempting to get this project going for some time, but has been repeatedly forced to reschedule due to high water from the enormous amount of rain received in the last 12-18 months. However, with the draining of the lower section of DeGray Lake, and a few weeks of dry weather, we had the opportunity to get the job done during a period of low-flow.

Two rock vanes were constructed to focus flow away from the eroding streambank and encourage deposition of sediment rather than erosion. These vanes required digging footers for the vanes, and during this process we received an unexpected surprise. The eroded bank had been undercutting at the base of the bank. When the track-hoe operator lowered the bucket, to excavate the area, he came up with a forty-pound flathead catfish. Needless to say, the flathead was not happy that we had disrupted his slumber! After thrashing around for a bit, and startling us half-to-death, he flopped out of the bucket and back into the river to look for a new place to rest. While he may not have been happy with us disturbing him, the vanes we constructed will benefit him in the long run. Rock vanes create habitat for invertebrates and fish and, as a result, will provide sportfish with better areas to forage, spawn, and rest.



Upstream rock vane: encourages deposition, creates biotic habitat, and directs flow away from eroding streambanks.

On the Fourche La Fave River another stabilization project has started on the Hawkins' land near Parks, Arkansas. The streambanks are eroding due to the influence of a mid-channel island, and the absence of a protective riparian zone along the streamside. At their request, the Stream Team has surveyed the area of concern, and is in the process of developing a plan to remedy the situation. Part of the solution to this problem will be to slope the eroding banks armor, or harden the toe of the banks, and replant them with native vegetation. In doing so, the soil making up the streambanks will be stabilized by the root systems, and will be less vulnerable to the erosive forces of the river. As a result, erosion of the valuable land, as well as inputs of excessive sediments, will be limited.

The Boldon Branch of the Little Missouri River is another future stabilization project the Stream Team is working on in Region IV. The eroding areas of this stream are on the outside bend of the channel on a hay field. Erosion at this site is a direct result of the absence of a protective riparian zone, and will require rock vanes and revegetation to remedy. A series of upstream pointing rock vanes will be installed to direct flow away from the eroding bank, and vegetation will help hold the soil in times of high water and precipitation.



Eroding streambank on the Fourche La Fave River.



Eroding streambank on Bolton Branch of the Little Missouri River.

A third project started is a collaborative effort with the city of Paris and Federal Emergency Management Agency (FEMA). Short Mountain Creek, just below Paris Park Lake, has experienced streambank erosion and, as a result, the city of Paris has asked for help from the Arkansas Game and Fish Commission Stream Team to develop a solution to the problem. This site has many issues that must be considered, including land rights issues and federal regulations. As a result, stone-toe-protection will be the best option for remedying this situation. Large rock will be placed at the toe of the bank, and extended to the top of the bank in areas where streambank sloping is not an option. Bank sloping will also be used in appropriate areas along with streambank revegetation.

In addition, I went on the first educational outing of the year with a Girl Scout group from Floral, Arkansas. Even though the water was still a little cold, we learned the importance of a clean stream, and how the critters that live in the stream can reflect the stream's water quality. One of these "critters" is called a hellgrammite, and received a lot of interest from students due to their large, piercing jaws. The scientific name for the hellgrammite is *Megaloptera*, which comes from two Greek words: *megal* (which means 'large'), and *ptera* (which means 'wings'). When hatched, these insects

have wings that are very large in comparison to their body size, which is where their name is derived. Hellgrammites can be found in many stream habitats; however, most are often found in areas with coarse substrate, clean and clear water, and a steady flow. Hellgrammites are predators of the insect world, and actively roam in search of smaller insects. These insects have hair-like filaments along their abdomen that serve as gills, and can be seen from the underside as they open and close. Life history of hellgrammites varies between species, but all species start the same when the adult lays eggs over the water on some form of hard structure. After one-to-two weeks, the eggs hatch and the larvae immediately drop into the water. Hellgrammite larvae will spend one-to-three years living underwater as larvae, and will shed their skin 10-12 times as they grow. They will then crawl out of the stream and find a good hiding place where they spend the next one-to-two weeks going through physiological changes to reach the adult stage. Once they become adults, the males live for three days and the females for eight-to-ten days. This time is spent finding a mate to start the next generation of hellgrammites.



Resting Hellgrammite

To find out more about stream insects check out the book “A Guide to Common Freshwater Invertebrates of North America” by J. Reese Voshell, Jr.

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

Spring is finally starting to pop-out all over the place up here in the Ozark Hill Country, and it's about time...to my way of thinkin'. The redbud and dogwood trees are putting on quite a show, and the oak tree pollen is giving my green truck a slightly yellow-tinge.

The kids at the *Ambassadors for Christ Academy* in Bentonville kept collecting water samples on Little Sugar Creek, despite the cold and snow that blanketed our area at various times this past winter. There seems to be something about being able to get out of class and “play” in the creek during a school day that knocks the chill down just a bit.

The *Northwest Arkansas Master Naturalists* conducted another day of stream sampling at Lake Atalanta, outside of Rogers in Benton County. The folks who attended that day's training are a small part of a larger group sampling a number of streams in the northwest corner of the state. This group involves a lot of retired folks who are very interested in the water quality in that part of the state, and are willing to spend their time sampling creeks to help keep them clean.

A number of the "Master Naturalists," and several retired teachers from the Rogers area, spent one day planting trees at a project site on Long Creek, near Denver in Carroll County. The 12 participants planted over 250 trees as the final portion of this restoration project. It's volunteer labor like this that makes my job a lot easier, and is a tremendous help in finalizing these stabilization projects. Thanks, again, to everyone who participated!

This is the project I have mentioned previously that involved the installation of a LFSTP (longitudinal-filled-stone-toe-protection), three rock vanes and, finally, the planting of the trees. These trees came from the Arkansas Forestry Commission Nursery, near Baucum just east of Little Rock, and all the trees are native to Arkansas. Six of the 12 species planted were oak, and those remaining were black walnut, native pecan, green ash, persimmon, sugarberry and mulberry. I prefer planting native species that are "critter friendly."

In March, I participated in the "walleye spawning project." This involved a group of AGFC employees spending several cold, sleepless nights electrofishing for walleye on the Middle Fork of the Little Red River, near Clinton in Van Buren County. The purpose of this project was to collect about 2.5 million eggs, in order for the agency to hatch-off a new batch of walleye to stock in area lakes in the near future. I have "back-pack shocked" before on several different occasions. However, that didn't prepare me for this! To say that this is fun and exciting - is really an understatement. To say that it is not a fair amount of hard work is - flat-out wrong.

We would motor upstream as far as we could, fire-up the generator, and begin stunning the fish. After spending approximately an hour doing this, we would motor back down to the boat ramp and inventory the fish. This involved measuring and weighing each fish, and checking the female walleye to see if they were ready to spawn or were still "green" (not ready to spawn). The ones that were "ripe" were stripped of their eggs, and the eggs were collected in a container. Sperm from the male walleye was added to the eggs, and they were mixed to ensure that the eggs were fertilized. After a couple of more steps, the fertilized eggs were bagged and placed in the fish truck to be transported to the Centerton hatchery. The female walleye that were just shy of spawning were also placed in the truck, as were a few of the males, for transport to the hatchery. Once they arrived at Centerton and they were ready, the spawning process was repeated. The females that were still green, and the majority of the males, were put back into the river.

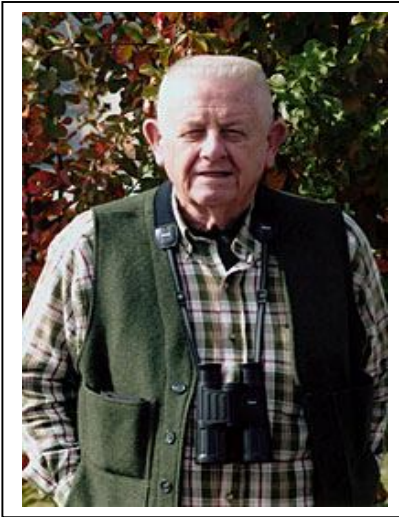


Planting Trees



Walleye Project

All-in-all, we shocked over 200 walleye, the vast majority of which were males. The largest female we collected was around 29 inches in length and weighed 9 pounds. We collected about 2 million eggs. The staff are hoping that 60-65% of the fertilized eggs will hatch and grow into fingerlings. If this does indeed occur, it would FAR exceed the 2-4% that might survive in the wild.



“Mr. Bill” Hailey

Arkansas and Missouri lost a great friend, in January of this year, when Mr. William F. (Bill) Hailey ‘left the surly bonds of earth’ and took his heavenly flight, at the age of 79. Bill never sought recognition; he just did his job as a wildlife officer (having served in both Missouri and Arkansas). While in Arkansas, Bill “wore several hats.” Just to name a few: Assistant Chief of the Enforcement Division, head of the Arkansas Boating Education program; and, as Chief of the Education Division, he launched the state’s Hunter Education program. Bill served his country in the Korean War, and came back home to Missouri to be a conservation agent with the Missouri Department of Conservation. There he worked the same streams where he loved to fish for smallmouth bass and goggle-eye. He married the love of his life, Goldie Lee Wilson (a teacher), and they never parted, spending almost 50 years of their life together.

Bill had an intense passion for his job as conservation officer, and worked almost year-round...24/7. After moving to Arkansas, Bill did a great job here, as well. He mentored younger men and women, not only in the wildlife enforcement areas but, in the fisheries, wildlife management, and other divisions throughout the Arkansas Game and Fish Commission. He had a wide view of the world and worked extremely well with all divisions, in addition to people from all walks of life. Bill was a student of the late Aldo Leopold, one of the foremost conservationists of the 20th Century. Leopold’s quote, “Conservation is a state of harmony between man and land,” guided Bill as he enforced wildlife laws, supervised, taught, and mentored people of all kinds who became state wildlife agency employees. “Mr. Bill” was an everyday hero who made a positive impact on the lives of many who have tread this earth, and his influence will continue to live on. He made a real difference in the world of fish and wildlife conservation, and showed us the way to do the same.

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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TO: