Friends is Active During the Pandemic

The Friends Board is concerned about all of our health and wellbeing and realize this is a very difficult time because of the pandemic. We are hopeful you have been vaccinated and if you haven't, please do so as soon as possible. The best solution to stopping the pandemic is through vaccination. Friends is a "science and fact-based organization" and we are confident the best scientific and medical people in the world have created the solution through the various vaccines. They are proving effective and safe, however they won't help us if we are not vaccinated. If you or a friend are hesitant, please seek competent advice from a medical professional or source to help address your concerns.

Friends Stream Team on Dodd Creek:

The Friends stream team was back on Dodd Creek June 14 to begin sampling macroinvertebrates and testing water quality.

L to R: Steve Blumreich, Scott Yaich and Jess Vanderstek assist Tom Emerick with the macroinvertebrate sampling.

MACROINVERTEBRATE TESTING:

Friend's Stream Team has been sampling the Dodd Creek macroinvertebrates as a means of evaluating the water quality and relative health of this White River tributary. The area of Dodd creek that is sampled is located on the ASU-Mountain Home campus adjacent to College Avenue and downstream and upstream of the bridge on East Kings Drive.

A team of three or more people samples the stream using a 3' x 4' kick-seine and a long handled D-frame net. One person holds the net at a downstream angle against the stream bottom while others kick and disturb the stream bottom, starting about 5' upstream and working towards the net to dislodge the macroinvertebrates. When the "kickers" reach the net they help lift it clear and walk it to shore where the catch will be counted and recorded. All fish are immediately returned to the water. Using tweezers and plastic droppers the macros are lifted from the net and placed in ice cube trays for examination. For our purposes, we identify the species to their scientific order. Smaller species can be better observed in a petri dish placed on the stage of a 10x microscope. The nets are rinsed in the stream to return any residual macros and the tray collections returned to the stream.

Each order of macroinvertebrates is assigned an index value (rating number) based on how sensitive each is to water pollution. "Sensitive" macros are rated 3, "less sensitive" are rated 2 and "tolerant" species are rated 1. We sum the number of orders found in each category and multiply by the indicated index value. We sum the order numbers to derive the index of our stream's water quality. The following are water quality ratings used for Stream Teams:

Excellent > 22 Good 17-22 Fair 11-16 Poor <11

Our June sampling resulted in a water quality rating of 22. We had 5 sensitive species, 2 less sensitive species and 3 tolerant species. While the water quality rating is good and some diversity is displayed, the overall count of organisms was somewhat low and might indicate poor stream bottom habitat. The stream substrate in the area sampled contained mainly gravel, sand and silt. Few cobble size or larger rocks were encountered.

WATER TESTING:

A series of chemical and physical measurements are conducted to test for potential water quality problems. Air and water temperatures affect metabolic rates of organisms as seasons change and water temperatures determine oxygen saturation levels in the water. Nitrates and orthophosphates are important nutrients for plants and bacteria and excess amounts can cause overabundance of plants and algae (eutrophication) which then die and use up available oxygen. The relatively high pH of

L to R Pam Phillips, Mike Risk and Mike Jirka conduct water chemistry tests on Dodd Creek water.

limestone substrates affects growing conditions for organisms and pollutants can alter the acidity of the water. Alkalinity and hardness are fairly constant and are related to the limestone environment. Dissolved and suspended solids can cloud the water, reducing light saturation and productivity. In high concentrations they can reduce fish gill function. Turbidity measures solids in the water.

The water test information obtained is sent to Arkansas Game and Fish Stream Team

Air temp: 24.4 C; Water temp: 20.4 C; Dissolved oxygen (DO): 8.3; Turbidity: 1 FTU - Formazin Turbidity Units; pH: 8.0; Nitrates: 1.2 mg/L; Orthophosphates: 0.43mg/L; Alkalinity: 260mg/L; Total dissolved solids: 213ppm.
DO and pH were averages of readings.
The results of the testing were within normal limits for the season and for air and water temperatures.

Piney Creek Float and Cleanup:

L to R Steve Diamond, Rita Cooke, Sam Cooke

June 28 was a beautiful day to float and clean up Piney Creek in Izard County. Nine kayakers covered eight miles of stream in three sections. Our base was Kevers Landing at the Boswell Road bridge. Brian and Jody Kever hosted our group, and their son Case provided a shuttle service. Piney Creek is a relatively clean stream with many bluffs and fun rapids. It is known as smallmouth fishery, and even supports trout in the colder months. This was the second annual Piney Creek cleanup for Friends. We hope you will consider joining us next year.

Friends Mountain Home High School College Scholarship Recipients:

L to R: Haley Schulten and Emily Payne

Friends was pleased to award two $1,000 scholarships to Haley Schulten and Emily Payne for the 2021-2022 school year.

Haley will be attending ASU-Mountain Home and studying agricultural science with plans to earn a Masters degree in fisheries and wildlife with a focus on environmental science from Arkansas Tech in Russellville.

Emily will be attending Ouachita Baptist University in Arkadelphia and studying biology in their pre-med program.

Haley and Emily were recommended for the Friends scholarship by their instructors based on their academic and extracurricular records.

We wish both Haley and Emily tremendous success in their future studies and endeavors.

Friends on Dry Run Creek:

We are fortunate to have Dry Run Creek as a wonderful resource for youth under the age of 16 and mobility impaired individuals of all ages to experience the thrill of catching world class trout.

Dry Run Creek introduces visitors to the various trout species, what they eat, why they are in DRC, the thrill of catching them and why clean cold water is vital to their health and survival.

And sometimes parents and children come to Dry Run Creek for respite from life-threatening illnesses.

There is something truly special about connecting kids with trout fishing on Dry Run Creek. Please invite youths under the age of 16 and mobility impaired individual of all ages to enjoy the experience of catching world class trout on Dry Run Creek. It can be a wonderful experience for all involved.

Friends Activity Outlook for 2021

Crooked Creek Float and Clean up:

Crooked Creek Float and Cleanup is tentatively scheduled for Saturday, September 18. The water should be lower and may aid in collecting more trash.

Poke Bayou Float and Clean up:

Poke Bayou Cleanup is scheduled for August 28, Saturday at Batesville. Look for details on our FOR website calendar.

We also are continuing the following in 2021:

- Dodd Creek stream bank erosion measurement program in conjunction with the Arkansas Game and Fish Commission
- Mountain Home High School Steam Team classroom program as Covid 19 protocols allow
- Funding three Friends $1,000 college scholarships

These accomplishments and others would not have been achieved without your effort, time, membership dues, generous donations and other contributions.

President's Message:

More challenges are ahead in 2021 because of the continued threat of the Covid 19 virus and growing threats throughout our watersheds.

While the pandemic has greatly affected the activity of Friends of the North Fork and White Rivers, it served to steer the attention of the public to our natural resources. Our abundant streams, lakes, national forest trails and campgrounds became an important outlet for many frustrated by social isolation. The middle White River watershed, from Bull Shoals to the mouth of Salado Creek is blessed to have very good water quality with incredible biodiversity and natural beauty. This includes the headwaters in the hills which are an essential part of the watershed. Friends, as a nonprofit watershed organization, is dedicated to the advocacy and conservation of this water quality and the life it supports. Please consider joining us in this important mission by becoming a member, or by renewing your membership.

Please support Friends of the North Fork and White Rivers' efforts to protect our streams, lakes and rivers by:

- **Joining or renewing your 2021 membership**
- **Making a financial contribution**
- **Volunteering for Stream Team and stream clean up events**
- **Contacting your elected officials and agencies when necessary**

Thank you again for your support.

Sam Cooke
President
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