



Channels

**6131
Stream Teams
Strong!**

Information for and about **Missouri Stream Teams** • May/June 2020

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2nd Quarter Prizes

- ◆ Digital USB Microscope 4.3 inch LCD 10X-600X
- ◆ Silent Spring books
- ◆ 12 Nature Cards sets by Gail Rowley
- ◆ 100ps First Aid Kit
- ◆ Waterproof backpack
- ◆ Coleman Portable Butane Stove with Carrying Case
- ◆ Youth Prize: Amazon e-gift card



Please keep sending us your Activity Reports . . .
You might win NEXT!

BIG PINEY RIVER RIPARIAN AREA PLANTED BY HELPING HANDS

By Susan Wrasmann, Stream Team 4623

Molly Vannoy (DNR VWQM Coordinator) emphasized the value of tree planting to control sediment in riparian areas along streams with her article “What’s the Scoop on Sediment?!” in the January/February 2020 issue of Channels. A 2015 report on Big Piney River low water crossings funded by the L-A-D Foundation noted “remarkable deforestation” in the watershed. That got the attention of Stream Team members in the Big Piney River Stream Team Watershed Association (Team 4623), particularly after two devastating floods in recent years. They were also motivated when State Herpetologist Jeff Briggler noted that the river bottom, prime hellbender habitat, had completely changed after the 2017 flood. Sediment and gravel movement had destroyed some of the shelters he and his team had placed for hellbenders raised at the St. Louis Zoo.

The association contacted the Mark Twain National Forest office in Rolla about possibly doing a riparian restoration on Forest Service land along the river. USFS Fish and Wildlife Biologist Daphne Kampinga

responded enthusiastically. Plans began to form after a field trip to a small site that had previously been planted 15 years ago by the Big Piney Tie Rafters, Team 3481. Daphne mapped two areas nearby of about eight acres each that were suitable for planting. The entire area is bottomland that had been cleared and farmed very close to the river. All that remains are some fences and a concrete house slab, alongside a very wet field.

The morning of March 7, just before the reality of COVID-19 would have put a stop to the project, 29 volunteers found their way down a maze of unmarked roads to the project site. They included several Stream Team members and staff member Sam Daugherty, Daphne and three of her crew, Eco Miners and Engineers Without Borders students from Missouri S&T, Engineer School Trainees from Ft. Leonard Wood, and an MSU student from West Plains who attended with her parents. Team 3481 member Jerry Barnabee mowed strips in the field that the Forest Service had prepped over the winter by “masticating” woody debris. That is, he mowed strips until his tractor got stuck in the muck about halfway through. Gone was the plan to use his tree planter. Out came every tree planting bar anyone could muster and the crew set to work sorting and planting the 1200+ trees by hand. Working in pairs, they placed seedlings and followed with one-meter squares of landscape fabric and staples to give the seedlings a fighting chance against the rank pasture grass. It was an unorthodox method, but the 20-foot trees from the previous planting showed it had been successful.



Hardy volunteers from all over southern and central Missouri after a long day's work of planting more than 1,200 trees.



A little elbow grease and creativity was needed to get out of this predicament.

See “Big Piney River” continued on page 2

Volunteering in the Age of Covid-19

Stream Team volunteers may be asking themselves whether it is safe to continue their usual Stream Team activities such as litter pickup, water quality monitoring, tree planting, or storm drain stenciling to fulfill their goals of clean, healthy streams.

At this time, community-based events that involve large numbers of people or common meeting areas for signing in, having meals, etc., are not recommended for the foreseeable future. Most traditional large events have been cancelled indefinitely or rescheduled for a later date to be evaluated as that time approaches.

However, it is still possible to get outdoors, enjoy nature, and perform some Stream Team activities while protecting yourself and others from possible spread of disease.

Check for updates from your local health department to be sure you are complying with the most current recommendations for preventing the spread of COVID-19, and the Stream Team website at www.mostreamteam.org for more guidelines on volunteering during this uncertain time.

It is important to remember that the following practices are the most effective methods for preventing the spread of the COVID-19 coronavirus:

- Staying home if you are sick or have any of the symptoms associated with COVID-19
- Volunteering in small groups of less than 10 people (preferably as few as possible needed to complete the task)
- Social distancing of six feet or more from non-household members
- Frequent handwashing with soap and warm water for at least 20 seconds
- Applying sanitizer (at least 60% alcohol) fully to hands and rubbing until completely dry
- Covering mouth and nose with a cloth mask
- If monitoring, clean and sanitize monitoring equipment; include hand sanitizer, rubber gloves, and disinfectant wipes in your monitoring kit; do not share equipment unless it can be properly sanitized between handlers
- Have a plan for your entire outing. This includes parking, meals/snacks/drinks, etc. Avoid busy parking lots at parks and conservation areas and avoid carpooling with others not from your household

Helpful links for more information:

- Center for Disease Control COVID-19 Guidelines:
<https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- Missouri Department of Health and Senior Services COVID-19 Outbreak:
<https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/>

See "Big Piney River" continued from page 1

The last task of the day was to get the tractor unstuck, accomplished with a four-wheeler, logs, and a fair amount of ingenuity.



On Wednesday, February 5th, 2020, Susan Wrasmann, author of the above article and President of Stream Teams United, was presented with the Lee Redmond Citizens Award by the Missouri Chapter of the American Fisheries Society for her tireless dedication to stream resources here in Missouri. She continues to devote her time educating others about the importance of water quality, advocating on behalf of Stream Teams United for clean water legislation, and leading on-the-ground restoration projects in the Big Piney Watershed. She is a true asset to Stream Teams United, Missouri streams, and our natural resources. Congratulations Susan!

Monitoring Minute

Managing Missouri's Nonpoint Source Pollution

By Laura Richardson, DNR VWQM Coordinator

The greatest source of water pollution in Missouri is nonpoint source pollution (NPS), which occurs when excess rain or snowmelt runs over the land, picks up pollutants along the way, and carries them to a water body. Because nonpoint source pollutants may originate from a variety of land use practices within a watershed, they are difficult to identify. Stream Teamers can learn more about current nonpoint source pollution issues and ways that local entities can make land use improvements by looking up the [Missouri Nonpoint Source Management Plan](#).

The Nonpoint Source Management Plan is a non-regulatory, voluntary tool to assist stakeholders with NPS challenges in Missouri, which outlines five goals to improve water quality: 1) Partner Collaboration – e.g., industry, landowners, environmental groups, and local leaders; 2) Monitoring and Assessment – determining water quality and locating potential improvements; 3) Prioritization and Planning – focusing improvements on impaired waters and protecting sensitive or high quality waters of the state; 4) Implementation of Restoration and Protection Projects – projects/processes to improve water quality; and 5) Public Engagement.

A statewide watershed planning effort helps achieve state priorities such as restoring impaired waters, protecting high quality waters, and source water/groundwater protection by focusing on best land use practices at the watershed level. An inclusive and comprehensive watershed plan can be developed by a local entity in partnership with landowners, communities, organizations, and industries to identify and prioritize actions to take within the watershed. If the plan is accepted by EPA, grants from Section 319 of the Clean Water Act can help fund implementation of the watershed plan.

The Volunteer Water Quality Monitoring Program helps protect our state's water resources from nonpoint source pollution by assisting with monitoring and assessment of water bodies. Baseline data collected by volunteers can be used to determine if follow-up monitoring is needed to evaluate potential impairments. Volunteers also represent public engagement with water resources and promote training and education about water quality in Missouri. You can learn more about nonpoint source management by visiting the following link:

<https://dnr.mo.gov/env/swcp/nps/index.html>.

The Riffle Review

a bi-monthly glimpse of Stream Team activities

Since our last issue of Channels, Stream Team members reported:

- 528 total activities
- 74.55 tons of trash collected
- 4,690 total participants
- 143 water quality monitoring trips
- 20,292 total hours
- 105 trees planted

Team Snapshots



Stream Team Assistant Carl Romesburg provided a nice indoor winter activity for Marshfield Junior High ARC Team 6060 students, prepping them for future water quality monitoring trips by explaining the importance of aquatic macroinvertebrates in determining water quality.



The Arnold Mighty 211 Winter Cleanup was a success! Multiple area Teams took the river by storm, removing more than two tons of trash from four area sites along the Meramec River. A smile from Mandy Fritsch-Yeager (Team 5863) to give us the momentum to carry on!



A small mountain of trash was collected by a mighty crew on Crane Creek in Stone County! Many thanks to Stream Teams 57 and 4325 for bringing the community together for a great cause!



Low Brow Outdoors & Company Team 5486 has our backs on not just one, but FIVE river accesses in the Lamine River watershed for everyone to enjoy safely and responsibly!

Perlesta decipiens

By S. Harlan

To what means do your ends justify?

To study through microscopes with curious eyes.

What is your name?

From where have you flown?

Your identity is at first unknown.

Then brought to light by the tell tale signs of,

Wings swept back and two elegant tails.

But to see as you see,

Your fellow stonefly.

We need a sight,

Which we cannot achieve,

With human eyes.

So with microscopes we magnify.

And now on your head we see three ocelli.

Two hooks on each leg,

Bulbous black eyes,

And a pigmented patch on the top of your head.

Glossae and paraglossae neatly in place,

A perfect example of a calm stonefly face.

Tiny lace wings, folded in place,

A gentle female of the Plecopteran race.

And when you've been prodded,

And probed and examined,

We use our keys to give you a name.

A stately Latin title you claim.

And now that you're labeled,

And neatly preserved,

We shall hold a place here,

With brothers and sisters,

From far and near,

In drawer number ten, there is a place in the rear,

With the name of *Perlesta decipiens*.

HOW ARE YOU ENJOYING YOUR ADOPTED STREAM IN THE TIME OF COVID-19?

If you are still finding yourself out and about to get some fresh air and are collecting trash or teaching family members about critters in the water, let us know! Small groups, while practicing social distancing, can still make a big difference. And, you can still submit an activity report for a lot – or every little bit – that you do! The Stream Team Program would also love to share your outdoor adventures on our [Facebook page](#), so please send in those photos! If you are posting on your social media account, we invite you to use hashtags related to your activity, such as [#mostreamteams](#), [#trashmob](#), [#ipickeditup](#), and/or [#riverrelief](#). When clicking on these hashtags on Facebook, Twitter, or Instagram, you'll be connected to all the others out there also doing their part on Missouri streams.

Stay safe and stream on!



COALITION CORNER

News from Stream Teams United

Grow Native! For Missouri's Watersheds

By Mary Culler, Stream Teams United Executive Director

2020 has been a year to remember so far! The pandemic caused by COVID-19 has impacted everyone in some way. Although many changes have been challenging, one of the benefits of this slower-paced time has been the opportunity for individuals and families to get outside to explore nearby lakes, woods, and streams (at least those areas that are still open to the public!).

During this time, I've had the opportunity to explore a few riparian areas near streams. It's been refreshing to see the growth of spring wildflowers bursting forth – the bluebells, violets, spring beauties, and other [Missouri native wildflowers](#) that color the undergrowth near streams and rivers. I've also enjoyed seeing wildflower photos shared on social media as many people also explore the outdoors.

In 2019, Stream Teams United received support through a [Patagonia](#) Wholesale Impact Grant to better equip Missouri Stream Teams in the greater St. Louis region with the knowledge and equipment to eradicate [invasive bush honeysuckle](#). During one of our workshops last fall, a participant asked me why Stream Teams United is interested in work regarding terrestrial plants. Great question! The answer lies in the fact that stream channels are just a small part of that stream's greater watershed. The quality, type, and abundance of different plants that make up a stream's watershed have a huge impact on the water quality, habitat, and stability of the stream channel.

Stream Teams United is an institutional supporter of the Missouri Prairie Foundation's Grow Native Program. This means that our organization promotes the use of native plants. [Native plants](#) are adapted to the soil and climate of our state. The extensive [root systems of native plants help to absorb floodwaters, filter pollutants from runoff, and hold soil in place](#). The more native plants in a watershed, the more likely it is that streams will have good water quality, have more consistent base flow, and be less prone to damage caused by floodwaters. Native plants also sequester carbon, an important function in our efforts to reduce greenhouse gases that are attributed to climate change. Native plants are also critical for pollinators, which are needed for [over 1/3 of the world's food crops](#).

Water quality, flooding, climate change, and food supply – native plants provide an essential tool for today's society to combat these global issues. Visit [grownative.org](#) and do your part to grow native in Missouri.



This 14 foot [prairie roots banner](#) from the [Tallgrass Prairie Center at the University of Northern Iowa](#) shows the extensive root system of native big bluestem and leadplant.