



6146
Stream Teams
Strong!

channels

Information for and about Missouri Stream Teams • July/August 2020

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2nd Quarter Prizes

- ◆ Digital USB Microscope 4.3 inch LCD 10X-600X
- ◆ Silent Spring book
- ◆ 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!

The Aquatic Bug Show - A Macro Display

By Bill McIlwee, Salty Scuds Stream Team 5863

I gained a whole new level of understanding for, and appreciation of, macroinvertebrates when the League of Watershed Guardians Stream Team Association (Team 5168) started doing "creek bug shows" at local events. I was blown away by seeing the benthic macroinvertebrates moving in the water. These critters swam or crawled all over the tray, each moving in their own fashion. My knowledge and skill with identifying macroinvertebrates increased a thousand-fold by the end of that day.

Also, it seemed like every kid ran over to look at the bugs. They got to look at the macros, pick them up with spoons, place them in ice cube trays, and use magnifying glasses to have a closer look. Each kid was totally enthralled with what they were doing. We talked about different taxa, easily recognizable features, food webs, stormwater, litter pickups, and the Stream Team Program. Parents were interested too and even more interested in the fact that their children were having a blast and learning about science and nature at the same time. I think that a lot of families stopped at a local retail store to buy a cheap net, ice cube trays, and some sort of plastic tray after the event.

The display equipment that I use is a five-gallon "job" bucket with a sealable lid and a hole for a bubbler. I also purchased a washing machine pan for about \$25 to use as my tray that has ridges to give it more strength and hiding places for the macros. The bubbler I use came from the sporting goods section of a local discount retailer.

A grant from Stream Teams United allowed us to escalate the League's macro display to a whole new level. We first purchased a set of child-friendly magnifying glasses called Learning Resources Jumbo Magnifiers which we bought from an online retailer for around \$10.

We then went high-tech with the purchase of two LCD microscopes. After much research, we purchased the "Digital 1-600X 3.6MP 4.3inch HD LCD Display Microscope Continuous Portable" which are fairly inexpensive for the quality. A tip for using these on a display is to let a kid scoop up a macro with a spoon and then place the critter in a small lid. Depending on the kid and the crowd, he or she can place the specimen into the field of view and maybe even use the coarse and fine adjustment to best view their critter. One of our microscopes has a SD memory card so that images and videos can be recorded and then transferred to a computer.

Our third microscope is my favorite one; it costs less than the two LCD scopes but this little darling can do magic. This microscope has no viewing screen but it does broadcast its own Wi-Fi or it can connect to a computer. It was called "Wireless Digital Wi-Fi USB Microscope 50X To 1000X Magnification Mini Handheld Endoscope Inspection Camera." A free app for smart phones or tablets allows you to view the specimen and take pictures or videos. We connected this microscope to a laptop and a projector. This was amazing and stunning – have you ever viewed a live image of a four-foot-long mayfly nymph moving its gills? The first time this was used, professional entomologists were enthralled as much as the kids and their parents.

A small investment can have huge returns. A live macro show with a few pieces of equipment can elevate your VWQM skills and help you to explain the Stream Team Program to other people. I bet that a few kids will remember "creek bugs" for a long time.

2019 Data Stars!

Congratulations to the 2019 VWQM Data Star award winners! We tip our hats to the monitors that went above and beyond with their water quality data collection and submissions for their sites. These folks have sent in 100% complete and accurate data submissions based upon their level of training (the online Data Stars submitted at least 2 complete sets of all 4 data types in 2019). We are inspired by the Data Stars' dedication and the attention to detail regarding monitoring procedures and data submissions. We also appreciate the high-quality, long-term data they have provided for streams throughout Missouri. So once again, thank you and congratulations to the 2019 Data Stars!

Paper Submissions: 28 Total

- ★ Adam Rembert (ST 2760)
- ★ Allan Keller (ST 4325, 4492)
- ★ Barbara Kipfer (ST 4325, 1156)
- ★ Beth Kroes (ST 5297)
- ★ Bob Kipfer (ST 4325, 1156)
- ★ Cynthia Andre (ST 4325, 1156)
- ★ David Jones (ST 4325)
- ★ Gala Keller (ST 4325)
- ★ Gene Hill (ST 5816)
- ★ Heather Slayton (ST 5897)
- ★ Jason Gargus (ST 5699)
- ★ Jessica Montgomery (ST 3491)
- ★ Karen Westin (ST 5874)
- ★ Kenny Brown (ST 3491)
- ★ Kerry Sturgis (ST 5330)
- ★ Kiah Wright (ST 5944)
- ★ Lauren Ferland (ST 5874)
- ★ Mat Rogers (ST 3491, 4707)
- ★ Matthew Fox (ST 5825)
- ★ Michael Nickel (ST 3491)
- ★ Roger Fox (ST 5825)
- ★ Ronna Haxby (ST 4325)
- ★ Sarah Davis-Stober (ST 723, 5921)
- ★ Sasha Rhea (ST 5957)
- ★ Sheila Watson (ST 1156)
- ★ Susan Williams (ST 5744)
- ★ Tina Hubert (ST 5783)
- ★ William Bockenkamp (ST 5323)

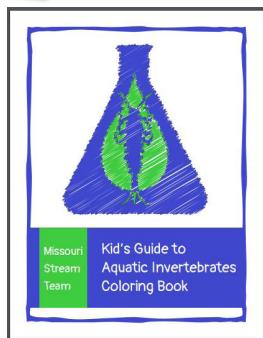
Online Submissions: 16 Total

- ★ Amera Wild (ST 3714, 5692)
- ★ Mike Engle (ST 31, 4220)
- ★ Geoff Stillwell (ST 1251, 4165)
- ★ Jo Anne Gitchell (ST 313, 4193)
- ★ Earl Barge (ST 4913)
- ★ Carol Bullard (ST 484, 4193)
- ★ Pam Barnabee (ST 3481, 5453)
- ★ Michael Hey (ST 4913)
- ★ Ross Braun (ST 3, 4746)
- ★ Caroline Toole (ST 8, 313, 4193)
- ★ Robert Virag (ST 2760, 5080)
- ★ Ron Brooks (ST 4193)
- ★ Sara Turner (ST 8, 3206)
- ★ Steve McCarthy (ST 3612, 5099)
- ★ Sue Knight (ST 8, 5527)
- ★ Tim Kirchhoff (ST 509)



NEW!

The Missouri Stream Team Kid's Guide to Aquatic Macroinvertebrates coloring book is available online! Kids and adults alike can use their imaginations while learning about the fascinating critters that live in our streams and tell us about water quality. Download and print individual pages of your choosing or the entire book at <http://www.mostreamteam.org/assets/kidsguidetoinvertebrates.pdf>



Test your Macroinvertebrate ID Skills!

By Randy Sarver, DNR VWQM QA/QC Officer

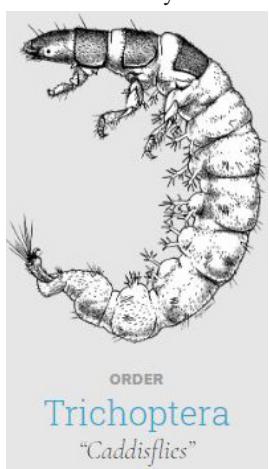
For some, accurate aquatic macroinvertebrate identification is one of the most challenging and interesting procedures of the Volunteer Water Quality Monitoring Program. Some members would like to improve their skills, but how do you practice when you are by yourself and want to test your accuracy?

One interesting way to review and test yourself has been provided by macroinvertebrates.org. This website has exceptional photographs as well as keys and quizzes. There are a few taxa that we don't cover in training classes, but being able to recognize more types of macroinvertebrates is good for your overall identifications skills.

When you open the website, the "Atlas of Common Freshwater Macroinvertebrates of Eastern North America" is visible. Like all websites, some experimentation is necessary to find all the functions. At the top right is a link to an "ID Key." On the top left are three horizontal bars that can be selected for additional resources. By selecting the "Resource" option, a macroinvertebrate "Practice Quiz" becomes available. Alternatively, the quiz can be accessed directly at macroinvertebrates.org/quiz.

Once you begin the practice quiz, random macroinvertebrate taxa will be displayed. Each image can be moved and enlarged for a better look at important identification characteristics. On the right side of the screen are three tabs. The default is "Macroinvertebrate ID." A pulldown menu allows you to select your answer. The middle tab is for "Diagnostic Character Hints," providing macro-photos of important identification characteristics. The "Current Score" tab on the far right lets you see your score.

This website provides good practice for learning or improving aquatic macroinvertebrate identification skills. To do really well, you will have to study the differences between "Net Spinning" and "Non-Net Spinning" caddisflies. Each time you take the quiz, the macroinvertebrates will appear in random order. There are many possible slides, you can start over at any time, and your score is always available. This quiz is a challenge! So, break out the magnifiers with your next set of samples and use your improved skills gained from this available resource.



The Riffle Review

a bi-monthly glimpse of Stream Team activities

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

- 202 total activities
- 13.01 tons of trash collected
- 645 total participants
- 58 water quality monitoring trips
- 2,372 total hours
- 1,513 trees planted

Check out more highlights below . . .

Team 728 Stream Teams United held their very first board meeting with participating Stream Team Associations by Zoom rather than in person, an unprecedented event since their inception in 1998. Thirty Association representatives and Stream Team staff attended remotely, welcoming everyone into the 21st century for conducting business online.

Team 1878 The one-man tire slinging machine, Jeff Bowman, has struck again! The Blue River in Kansas City is now 77 tires lighter than before he arrived to take out these mosquito-breeding eyesores. Great work!

Team 2991 Despite very wet ground which complicated efforts, 410 more trees were placed into the ground along Bone Creek in the Labarque Creek watershed. Over the last five years, Jan Schillinger has reported nearly 2,000 trees planted to improve habitat in the watershed.

Team 3714 Amera Wild has been busy maintaining the monofilament recycling bins placed at various parks and boat ramps in Joplin during a busy fishing season. “Curious visitors asked what I was doing and I had the opportunity to explain how fishing line tangles wildlife,” she said. Monofilament recycling bins are an excellent opportunity to educate others!

Team 4541 The PBK Stream Team found a “honey hole” of rubbish accumulating on a bend of Shoal Creek in Clay County and took action. Aside from the unfortunate reality of acquiring a couple of ticks in the process, Prudence Courtemanche also collected six large bags of plastic, glass, cans, balls, a bat, styrofoam, buckets, medical bottles, gloves, doggy bags, and grocery bags.

Team 4717 Courtois Creek in Washington County got a good spring cleaning by the Huzzah Heathens, after a seemingly long winter. While cleaning up, they saw two herons, four turtles, a bunny, and “the birds singing their songs sounded like spring!” said Dona Bleything. Always a great way to start the season!

Team 5615 Skeet’s Dream Team continues to honor their passed loved ones by caring for their adopted sites along the Osage River/Truman Lake, planting 700 trees in remembrance of a young man close to them, and using Stream Team coloring books as educational tools for the younger generation in their community.

Team 5645 The St. Francois Brigade discovered an illegal dump of tires, furniture, and other miscellaneous large items; despite the pandemic, they were determined to clear the area safely. After several pickups for a few hours at a time over several weeks, the Team removed more than two tons of trash from Bonne Terre wetland, including 114 tires and three dumpsters full of trash. Persistence pays off!

Team 5750 Beaver Creek Canoe Rental is making sure that the Rome to Brownbranch accesses are safe enough for floaters to paddle through on Beaver Creek in Taney County, while removing “strainers” (i.e., downed trees) and trash. Remember to be aware of obstacles and keep safety in mind while floating your local streams!

Team Snapshots



#Trashmob! Members of Missouri River Relief Team 1875 are making a big difference in small groups, on small creeks like Flat Branch Creek in Columbia, all while practicing social distancing and safety precautions against COVID-19. Laura Semken's trash haul is made easier by a handy bicycle trailer for covering several miles of the MKT trail. Good thinking!



Doris Guillory (Team 5208) has been trash mobbing herself at Binder Lake, collecting nearly 350 pounds of trash just on her own! Check out the inspiring video about Doris's efforts, “Caring IS Contagious,” at <https://youtu.be/Fw54lkBPwrl>.



When it's safe to do so, the Goose Creek Goons (Team 4982) have a plan of attack for their annual cleanup of Goose Lake in St. Francois County.



The Spanish Lake Stream Team 5773 was busy this winter with a fun group of Master Naturalists, hacking away at honeysuckle and cleaning up not only at Spanish Lake in St. Louis County, but also North Lake, Christian Lake, and surrounding tributaries. That's a lot of ground to cover!

TURN IN YOUR ACTIVITIES

Wow, how our lives have changed in a few short months in response to Covid-19! Stream Team (ST) Activity numbers are down nearly 90% from last year. We know many of you are anxious to get out and start caring for our rivers and streams. However, in the meantime, did you know the following count as ST Activities: • Planning for upcoming events • Post-event wrap-up • ST Meetings • ST Phone calls and emails • Checking ST website for information and ST Resources • Non-stream cleanups (e.g., cleaning up around your neighborhood) • Time driving to/from ST Events • Calibrating VWQM equipment. We want to hear from you whether you did a little or a lot! Thank you for all your hard work!



COALITION CORNER

News from Stream Teams United



WILD & SCENIC® FILM FESTIVAL

WHERE ACTIVISM GETS INSPIRED



Presented by Stream Teams United
THE GREAT RIVERS STATE
WILD & SCENIC FILM FESTIVAL

Thursday July 23, 2020

Live Virtual Event 7-9 pm

Last River Pearl Raffle Films "Door" Prizes
Register at streamteamsunited.org



Join Us Thursday Night, July 23, to Kick Off a Watershed Celebration Weekend

By Mary Culler, Stream Teams United Executive Director

This year would have been the 24th consecutive year of Missouri Stream Teams meeting together at Meramec State Park for a Stream Team watershed celebration. Due to the ongoing pandemic, we made the decision to cancel the in-person festivities at Meramec State Park, and instead we are hosting a virtual celebration of watersheds that kicks off on Thursday evening, July 23 and runs through the historic Watershed Celebration Weekend (July 24-26).

The weekend festivities begin Thursday evening at 7:00 p.m. with our online [Great Rivers State Wild and Scenic Film Festival](#). Tickets for this online Virtual Event can be purchased for just \$1, and tickets enter you into a drawing for a free [Paddle MO](#) trip scholarship. The scholarship can be used this year, gifted to a friend, or saved for an upcoming year. The evening will include inspiring films featuring water and river issues from around the globe, river trivia, and additional raffle prizes. Plus, you can talk to your Stream Team friends in the chat box during the event! Sure to be a fun evening!

The rest of the weekend, we'll have a series of online events, including the announcement of our [Great Rivers State Photo Contest](#) winners and the 2019 Stream Team Award Ceremony. We're putting together an awesome compilation of videos that will be premiered on our YouTube Channel. Subscribe to [our YouTube Channel](#) to tune in! For daily activities, check out our [Virtual Watershed Celebration page](#).

For individuals and families that still want to go to Meramec State Park, camping will still be free for Missouri Stream Teams; this year at [Group Camp A](#) on Friday, July 24 through Saturday, July 25. Camping is first-come, first-serve. Please contact [Meramec State Park](#) with any questions about campground facilities.

Obviously, 2020 has been a year like none of us could have imagined. We are hopeful to gather together again in 2021. For now, we look forward to seeing our Stream Team family online this July! I hope you join us in the fun! Grab [your Wild and Scenic ticket today and enter to win a free Paddle MO scholarship!](#)



Many thanks to Amy and Larry Cain, who have spent countless hours over the last 24 years organizing the Meramec Watershed Celebration for all Stream Teams to enjoy.