

## THE CATALYST

### SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

**NEXT MEETING:** 7 pm on 8/13/15 at Jennings Environmental Education Center, pizza and pop provided. The July meeting was cancelled.

### **2015 PA Abandoned Mine Reclamation Conference: “Reclaiming Our Communities”**

The 2015 Pennsylvania Abandoned Mine Reclamation Conference was held on June 25 & 26th in State College, PA. The conference was a great success with an increase in both attendance and the number of displays. It was the most number of people that had attended the conference in at least 5 years and a number of new young faces added to the energy-filled event! In addition, to the many excellent talks, there was a golf outing, a film festival, silent auction, and a Sustainability Tour. The Sustainability Tour provided the attendees an interesting experience that was different from the typical mine reclamation tours of the past. Stops included the Penn State Arboretum, the Penn State Forestry Building Green Roof, the Tait Farm, and last but not least the Seven Mountains Winery. Possibly the most interesting part of the tour was the University Area Joint Authority Beneficial Use Project that provides such advanced treatment of public sewage that it is probably better quality than some drinking water and is sold primarily for specialty industrial and commercial uses with any remaining water going to a wetland.

This year’s Mayfly Award was presented to **Art Grguric** of the **Blackleggs Creek Watershed Association**. Art has been an instrumental “sparkplug” for the group and has been personally involved in the construction and maintenance of all of their treatment systems that have been “works of Art”. In addition, to their work on restoring the water quality of Blackleggs, **they also provide educational opportunities and raise trout that they stock in their streams!** Art is an all around great guy and we congratulate him on receiving this well-deserved award!

At the conference, SRWC’s own **Cliff Denholm** of Stream Restoration and BioMost, Inc. gave a presentation entitled “Passive Treatment of Acidic, High Metal Discharges” where he demonstrated by example that passive treatment systems can effectively treat highly acidic mine discharges that have high concentrations of iron, aluminum, and manganese. One of the important points of the talk was demonstrating that these systems can treat very bad water, but they must be properly designed, constructed, and maintained. Throughout the talk, he used several of the SRWC passive systems as examples that treat some of the worst mine drainage around, including Jennings, McIntire, De Sale 1, De Sale 2, and De Sale 3.

A big thank you goes out to all of the people who volunteered their time to organize this wonderful event, especially **Andy McCallister** and **Anne Daymut** from WPCAMR, **Robert Hughes** and **Mike Hewitt** from EP-CAMR, and **Jeff McNelly** and **Cristy Doyle** from ARIPPA.




Anne Daymut of WPCAMR presented Art Grguric with the Mayfly Award (thanks to Missy Reckner for the photo!) at the 2015 AMR Conference.



Cassie and Ben Busler enjoy paddling their kayak at the Lake Arthur Regatta. More to come next month...

### WANTED: Volunteers



The SRWC is still in need of volunteers for our **Adopt-A-Passive Treatment System** program. A technical background is not needed for this excellent learning opportunity (that could also look good on a resume!) All that is needed is the ability to walk/hike outdoors and a desire to help. We will teach you what you need to know and do. Contact **Cliff Denholm** by phone at 724-776-0161 or email [sri@streamrestorationinc.org](mailto:sri@streamrestorationinc.org).

### Slippery Rock University Professor and Student Co-Author Paper

Dr. Dean DeNicola, Professor of Biology, Slippery Rock University, and 2015 SRU graduate Amber Lellock (Biology major), recently had their paper “**Nutrient Limitation of Algal Periphyton in Streams Along an Acid Mine Drainage Gradient**” published in the Phycological Society of America journal. The paper represents a culmination of research and study on seven, first or second-order, streams in the Slippery Rock Creek Watershed about how AMD precipitate on a streambed can reduce nutrients. The objectives of the study were to determine the effects of nutrient addition on algal periphyton biomass and community composition at the seven stream sites that represent a gradient of AMD impact. Because cellular concentrations of nutrients in periphyton also can be related to nutrient availability, another objective was to determine how the carbon and nitrogen content of periphyton communities responded to nutrient addition.

Dr. DeNicola and Amber’s paper examines and explains their research results, which showed that nutrient limitation of algal biomass increased with AMD impact, indicating metal oxyhydroxides associated with AMD likely decreased phosphorus availability. Algal species composition was significantly affected by site but not nutrient treatment. Their results demonstrated the percent carbon content of periphyton on the control treatment significantly increased with AMD impact and corresponded to an increase in the relative abundance of chlorophytes. The significance of the study includes the likelihood that changes in periphyton biomass and cellular nutrient content associated with nutrient limitation in AMD-impacted streams may affect higher trophic levels of ecosystems.



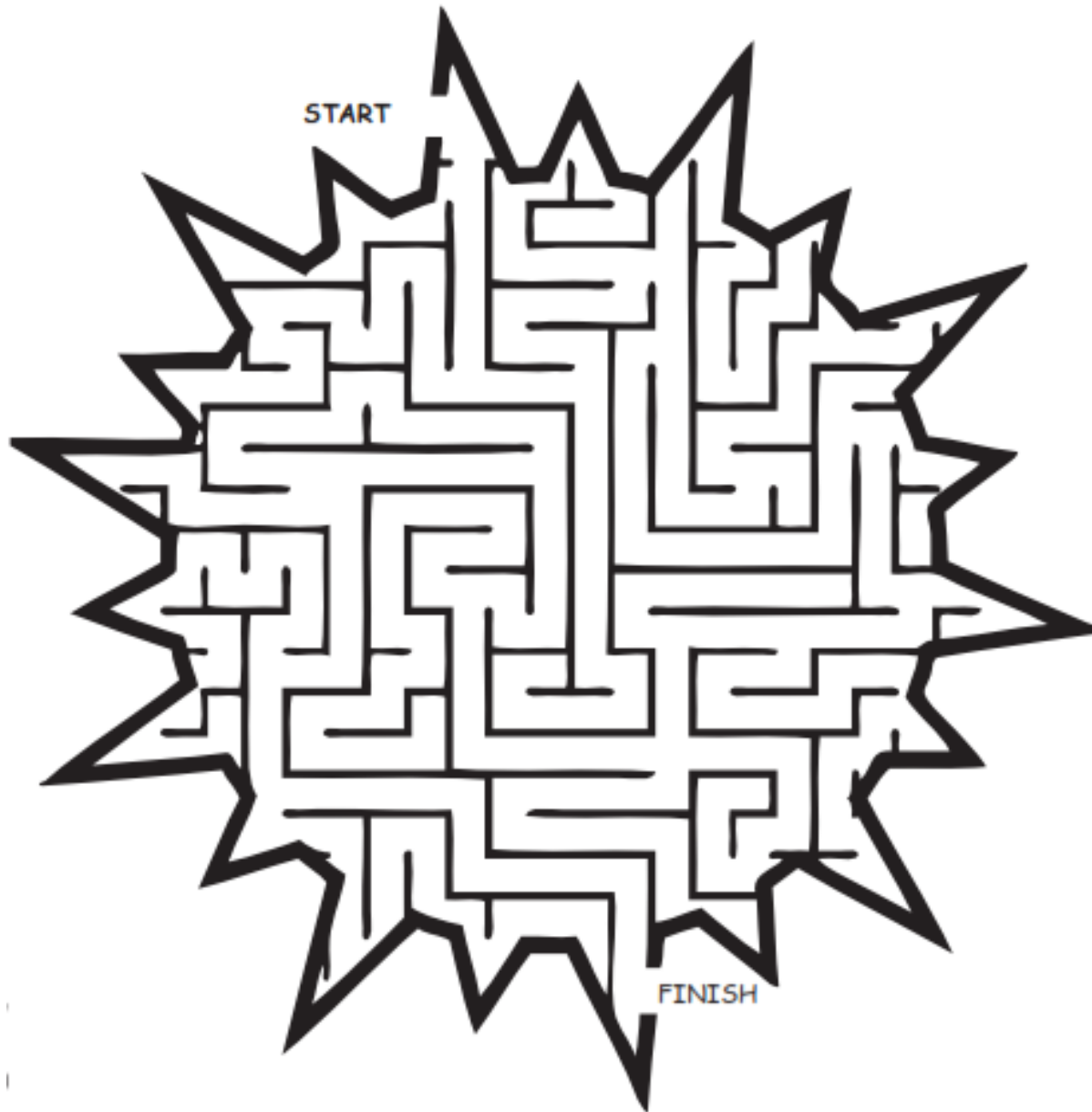
# The KIDS Catalyst

## SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



### A-maze-ing Sun

We can thank our amazing sun for the beautiful warm (sometimes hot!!) days of summer. The sun is the center of our solar system and is responsible for our weather and climate. The temperature at the core of the sun is an incredible 27 million degrees Fahrenheit!! At this temperature, energy is created by fusion, when hydrogen is converted to helium. The sun would explode like a giant bomb if it wasn't for its tremendous gravitational force! Though we could not live here on Earth without the sun, the sun is actually a very ordinary, average star. Earth is located the perfect distance away from the sun (93 million miles) for life to flourish. It might not look that big from so far away, but over 1 million Earths could fit inside the sun! If you can navigate from Start to Finish on our Sun maze challenge, mail us your paper and we'll send you a \$1 credit for Amazon.com! Credits can be saved to buy something really great! Enjoy your summer!



Name \_\_\_\_\_

Age \_\_\_\_\_

Address \_\_\_\_\_

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Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated  
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## Save the Date

### 20th Anniversary Celebration of the SRWC

Mark your calendar!!!!

The 20th Anniversary Celebration of the SRWC will be held October 9th & 10th.

Look for more information in next month's issue of *The Catalyst*, on our website ([www.srwc.org](http://www.srwc.org)), and on our Facebook page! (Don't forget to like us on Facebook!)



20<sup>th</sup>  
ANNIVERSARY