

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

NEXT MEETING: 7 pm on 7/10/14 at Jennings Environmental Education Center, pizza and pop provided. No regular June meeting was held.

16th Annual PA AMR Conference

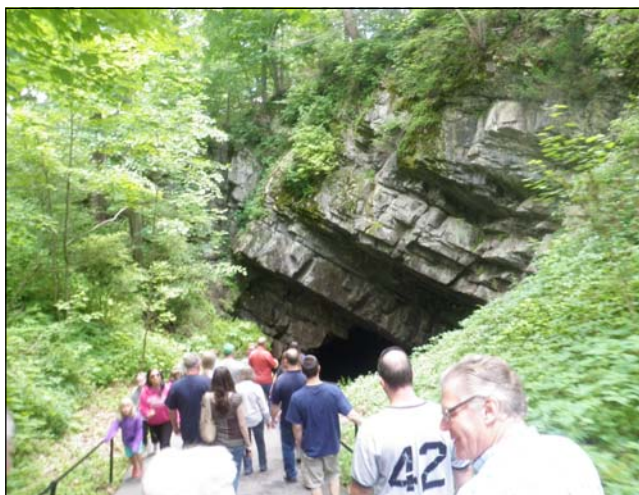
The Ramada Conference Center at State College was the site of this year's PA Abandoned Mine Reclamation Conference. Held June 26-27, the theme of this year's conference was "**Collaboration is Essential**". A unique "combination" conference took place this year, with the PA AMR Conference teaming up with **ARIPPA** to join efforts and audiences. The two groups co-hosted an interesting and rewarding 2-day conference on **AMD/AMR and Independent Power Production**.

Stream Restoration, Inc. was one of over a dozen exhibitors at the conference, with SRWC participants **Margaret Dunn, Tim Danehy, Shaun Busler, and Cliff Denholm**, providing information about the Slippery Rock Creek Watershed restoration efforts and **Clean Creek Products**, complete with samples of some of the beautiful ceramic pieces, whose sale raises money for restoration efforts (www.cleancreek.org). Other partners of the SRWC also had displays including **Harsco Metals & Minerals, EPCAMR & WPCAMR, Agri-Drain Corporation, and Hy-Tech Mushroom Compost, Inc.**

Cliff's presentation entitled, "*Datashed* Overview and Q&A", highlighted the history, purpose, and many features of the free website. Currently, with information for **over 260 (!) passive treatment systems, *Datashed***, as a collaborative effort with watershed groups, non-profits, and government agencies, provides the tools needed to store and share technical information about publically-funded, systems in PA, such as water quality data and project information. Cliff also helped those who wanted to begin using *Datashed* for the first time. The site (www.datashed.org) also contains how-to instructions, as well as helpful video tutorials. During and after the presentation, a representative of watershed restoration efforts in the western US, also expressed excitement and interest in implementing a similar program for their systems!!!



Thursday evening marked a special occasion, as a banquet was held to commemorate **ARIPPA's 25th Anniversary!!!** The dinner was sponsored by the **Susquehanna River Basin Commission** and included a silent auction of abandoned mine-related memorabilia. Networking, other presentations, and special outings, including golfing and a tour of Penn's Cave, were some of the highlights of the conference. On Friday, there were **excellent(!!!)** keynote addresses given by **Chris Abruzzo, Secretary, PA DEP** and **Joe Pizarchik, Director, US Office of Surface Mining and Reclamation**. Congratulations also to this year's recipient of the special honor of the Mayfly Award, **Pam Milavec, Environmental Program Manager, PA DEP Bureau of Conservation and Recreation**.



Special thanks (!!!) goes to the 2014 Planning Committee: **Andy McAllister & Anne Daymut (WPCAMR), Robert Hughes & Michael Hewitt (EPCAMR), Jeff McNelly & Cristy Doyle (ARIPPA), Lois Uranowski (USOSM), Donna Wagner (PADEP, BCR), Glenn Florence (PADEP, AAMO), Tom Grote (WPCAMR Volunteer), Tom Clark (SRBC), Leigh Ann Kemmerer (EPCAMR Board), and Cliff Denholm (SRI)!!!** The time and effort spent coordinating this wonderful event was very much appreciated!!!



Penn's Cave (open to the public since 1885!) was one fun field trip option for attendees at the 16th Annual PA AMR Conference, held at State College on June 26th and 27th (*see article on front page*). Participants enjoyed a cool boat tour through the limestone cavern, discovered centuries ago by the Seneca Indians.

Oklahoma!

In June, a van full of Slippery Rock Watershed Coalition participants drove to Oklahoma “where the wind comes sweepin' down the plain” to participate in the American Society of Mining and Reclamation 31st National Meeting. This year's event was held in Oklahoma City. The conference included a variety of presentations and networking events including numerous talks on passive treatment and land reclamation. SRWC participants who provided presentations at the conference included **Dr. Fred Brenner** (“Impact of Mine Drainage on the Genetic Diversity of Brook Trout”), **Ryan Mahony** (“Rehabilitation of Pennsylvania Passive Treatment Systems”), and **Cliff Denholm** (“Jennings Passive Treatment System Rehabilitation.”) Our very own **Margaret Dunn** was awarded this year's prestigious William T. Plass Award for her outstanding contributions to reclamation and watershed restoration.



While in Oklahoma, we were able to take in some of the many interesting sites, history, and culture of the state. An interesting fact is that Oklahoma has 12 ecoregions making it one of the most ecologically diverse of all the states. In Oklahoma City we were able to visit the National Memorial (former site of the Alfred P. Murrah Federal building), Myriad Botanical Gardens, Bricktown District, etc. We took a little visit to **Oklahoma University** in Norman to see where **Dr. Bob Nairn's** OU CREW does their magic, checked out the college town, and visited the Sam Noble Oklahoma Museum of Natural History.

As part of our journey home we toured parts of the Tar Creek Watershed in northeastern Oklahoma, which is part of the Tri-State Lead-Zinc Mining District of Oklahoma, Kansas and Missouri. During mining operations 4,000 mines produced 23 million tons of zinc concentrates and four million tons of lead concentrates. These metal mine operations were critical to providing the metal needed for World Wars I and II. This area is now part of a large EPA Superfund site with highly-polluted waters and extremely large piles of waste rock known as chat. These chat piles are similar to Pennsylvania's coal refuse and spoil piles. We stopped at the Mayer Ranch passive treatment system near the town of Miami which was home to baseball legend Mickey Mantle. We also visited the ghost town of Picher, which appeared to be at the center of the superfund site with lots of large chat piles, mine subsidence, and mine drainage. The town had been so polluted that the federal government bought out most of the residences in the 1980s and 1990s. The homes that had been left were largely destroyed by a tornado. It was interesting to see how nature was slowly taking the town back. In addition, we also had the opportunity to visit the Pensacola dam and hydropower plant which was really awesome.

Thanks to all the wonderful Oklahomans who offered great hospitality to make our trip one to remember!



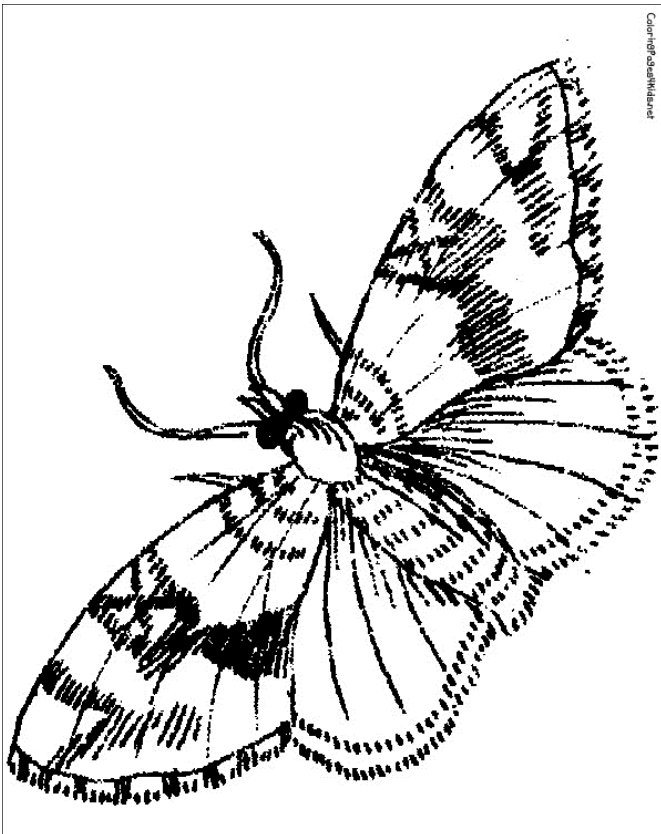
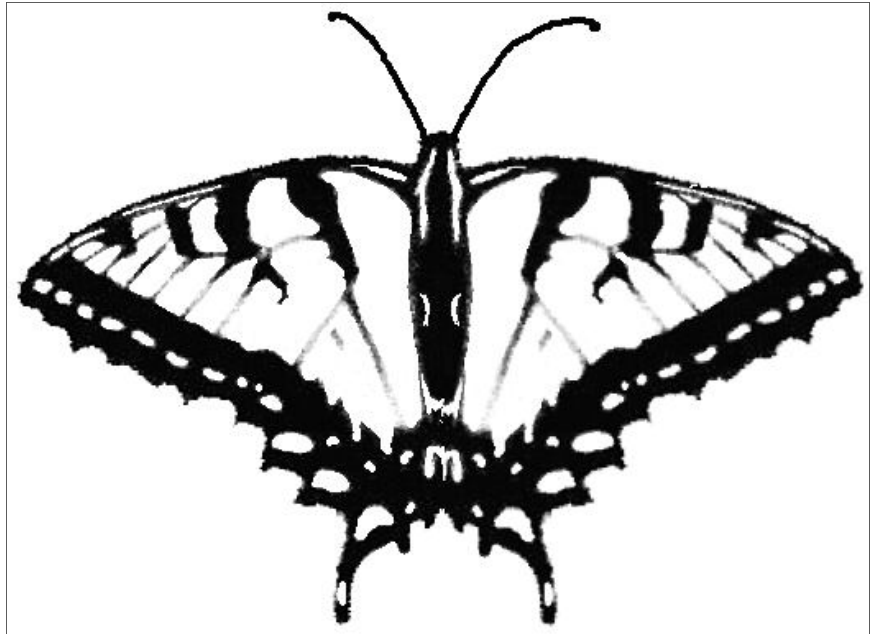
The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



Butterflies and Moths

Hopefully now that summer is here you have been able to spot some beautiful butterflies fluttering about in your backyard, woods, park, etc. Two butterflies we often see in Pennsylvania are shown below to the right: the tiger swallowtail (top) and the monarch (bottom). Tiger swallowtails are mostly usually black and yellow in color, with some blue at the bottom of the lower wings. Monarchs are orange and black. The moth shown at the left is usually a drab color such as light brown. Moths have plain colors to camouflage themselves as they rest during the day. Moths are most active at night (this is called nocturnal), while butterflies are active during the day (which is known as diurnal). Moths have stout and furry-looking bodies, while butterflies have slender and smoother bodies. Another difference is with antennae. Most butterflies have thin slender filamentous antennae which are club-shaped at the end. Moths, on the other hand, often have comb-like or feathery antennae, that are not clubbed at the ends. Most moth caterpillars spin a cocoon made of silk when undergoing metamorphosis. Most butterfly caterpillars, on the other hand, form an exposed pupa called a chrysalis. Another difference between moths and butterflies is the way they rest. Moths usually rest with their wings spread out to their sides. Butterflies frequently fold their wings above their backs when they are perched, although they will occasionally "bask" with their wings spread open for short periods of time. Now you should be able to tell the difference between a moth and a butterfly! We hope you see some beautiful examples in nature this summer. Just remember that they are very delicate and it's best to look and not touch! Have fun coloring the pictures, and if you mail us your colored paper we'll send you a free gift certificate!



Name _____ Age ____ Address _____



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated
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Sinking Creek Pottery

Another company has begun creatively using the AMD byproducts left over as a result of passive treatment used to clean streams! **Sinking Creek Pottery**, based out of Blacksburg, Virginia, offers customers a variety of beautiful, functional, and decorative stoneware, such as bowls, mugs, vases, and plates. We are very excited to say that the ceramic piece shown below features the iron recovered by **Clean Creek Products** from passive treatment systems in the **Slippery Rock Creek Watershed!!!!!!**

Sinking Creek Pottery founder **Zenah Orndorff** first began throwing pots back in 1992 when she started a graduate program in soils at **Virginia Tech**. What started in the ceramics studio at the Virginia Tech student union moved a few years later to a barn located along Sinking Creek, just outside of Blacksburg, when Zenah and a friend (**Molly Lucier**) set up a studio together. When they established their business the name was a natural choice, as Sinking Creek is well known in the area and as cavers they liked the idea of being named after a karst feature! Zenah and Molly eventually had to give up the barn, but held on to the name when they moved their studios back to Blacksburg.

Zenah, who completed a MS related to reclamation of heavy mineral sands mining in the Virginia Coastal Plain, and a PhD on acid-producing sulfide-bearing materials along Virginia highway corridors, now works as a research associate at Virginia Tech. **Through the American Association of Mining and Reclamation, Zenah met Margaret Dunn and learned of the use of AMD pigments in Clean Creek Pottery.**

As someone who works with reclamation and acid drainage, she was pretty excited! She mixed her first glaze using yellow iron oxide provided by CCP this past winter, and looks forward to experimenting more with that and the manganese oxide. Another mining-related ingredient Zenah has a direct connection to is **ilmenite (iron titanium oxide), a constituent of the heavy mineral sands mined in Virginia**. This area is prime farmland and Zenah does reclamation work there to help return the mined land to agricultural use. Adding ilmenite to the glaze creates small black speckles. Zenah likes talking to customers about the incorporation of these materials because it opens up discussion on mining and reclamation work that's fairly close to home.

