

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

THIS MONTH'S MEETING: Thursday 6/8/06 at 7 pm at Jennings Environmental Education Center, pizza and pop provided. 5/11/06 Meeting Attendance: C. Cooper, C. Denholm, M. Dunn, K. Durrett, D. Johnson, V. Kefeli, W. Taylor, S. VanDerWal, K. Williams

Student Summit a Success at Jennings!!!



On Thursday, April 27, 2006, Jennings Environmental Education Center held the **4th Annual Watershed Education Ohio Basin Student Summit**. The purpose of the summit is to highlight participants' achievement within the **Pennsylvania Bureau of State Parks Watershed Education** program and cultivate discovery and an environment conducive to the sharing of ideas, materials and enthusiasm intended for the lasting benefit of the Ohio Basin.

Approximately 60 students and teachers from the **Margaret B. Miller Middle School, St. Stephen's Academy, A.W. Beattie Career Center and the Quiet Creek Herb Farm & School of Country Living** were in attendance. Three interactive sessions and a resource based scavenger hunt were conducted throughout the day.

Students also highlighted their efforts in watershed conservation and monitoring during presentations throughout the day. During the interactive sessions, **Mary Jo Shreffler** taught the basics of GPS. Students discovered how useful the technology is for recreational activities and for use in conjunction with watershed education program activities. At the T-shirt tie-dyeing station **Heidi Solley** and Jennings volunteer **Amber Shepeck** revealed the effects of abandoned mine drainage (AMD) on Pennsylvania's streams. Students received a brief history of coal mining; discovered how AMD is formed and learned what methods are being used to treat AMD today. Iron oxide recovered from abandoned mine sites was used to dye the T-shirts.

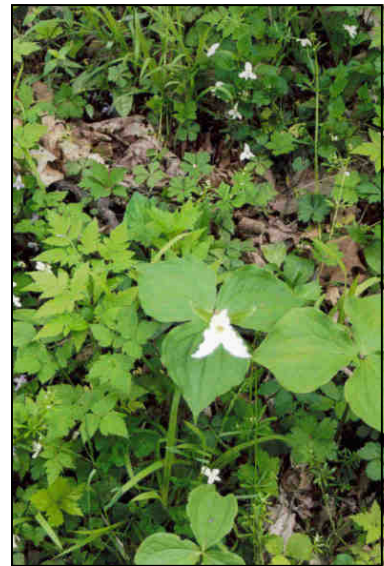
April Claus of **Interactive Environmental Programs** engaged students with an array of reptiles and amphibians often sighted during monitoring activities. Students learned about the physical characteristics of each animal and also learned about their habitats. The final session students participated in was the resource based scavenger hunt made possible by participation from various agencies and organizations including the **PA Fish and Boat Commission, PA DCNR, Slippery Rock Watershed Coalition, Pennsylvania Game Commission, Western PA Conservancy, Mercer County Conservation District, PA DEP and the Beaver/Butler County Cooperative Extension**; thank you!! During the scavenger hunt students were able to explore the resource tables and learn even more about the Ohio Basin. A fun time was had by all!!!



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Heidi Solley guides a group at the annual Mother's Day wildflower walk at Jennings Environmental Education Center, Butler County, PA.



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Manganese Recovery

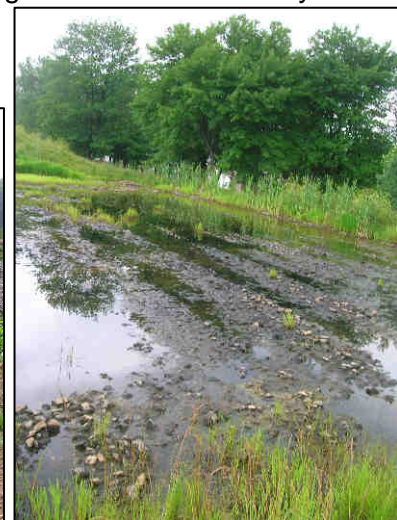
The picture below (left) was taken shows the Environmentally Innovative Solutions display booth at the **2006 Society of Mining Engineering & American Society of Mine Reclamation Annual Conference** in St. Louis, Missouri near the end of March. The ceramic bowls on the display were created by a group of potters from Ohio and have been coated with glazes made out of manganese recovered from a passive treatment system in the Slippery Rock Watershed. This exciting use of metals recovered from acid mine drainage was unveiled at the conference and met with considerable excitement.

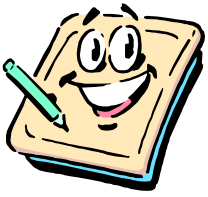


Manganese is the fourth-most used metal in terms of tonnage (ranked behind iron, aluminum, and copper) with 29 million tons mined annually worldwide. Its many applications which impact consumers' lives include objects made of steel, portable batteries, and aluminum beverage cans. Manganese plays a crucial role in improving the properties of the alloys and compounds involved in these uses. It even serves as an essential element for the human body, with recommended dietary intake levels established to maintain good health.

Over the last 15 years government agencies, watershed groups, nonprofits, universities, and private industry have developed and implemented passive treatment systems to inhibit the negative effects of acid mine drainage. These treatment systems have dramatically improved watersheds across the country, turning lifeless streams into healthy productive aquatic habitats.

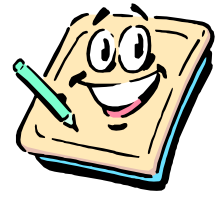
In order to sustain the dramatic improvements in water quality using passive treatment systems, potential uses for the accumulating metal solids such as manganese need to be devised. **Stream Restoration Incorporated** and **BioMost Inc.** recognize this need and have been conducting research to recover the manganese metal and evaluate potential markets for this material. **The Southern Alleghenies Conservancy** and the **PA Department of Environmental Protection** have generously funded this project.





The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



Watershed Word Search

Wondering what is a **watershed**? A watershed is the word used to describe an area of land that drains water to a shared destination such as a river, or other body of water. The watershed drains down slope to its lowest point, moving through a network of drainage pathways. Generally, these pathways converge into streams and rivers, which become larger as the water moves on downstream, eventually reaching an estuary and the ocean. Watersheds can be large or small. Every stream, tributary, or river has an associated watershed, and small watersheds join to become larger watersheds. There are 5 major watersheds in Pennsylvania: the Delaware, the Great Lakes, the Ohio, the Potomac and the Susquehanna. Try to find the "watershed" words hidden in the Word Search below. Circle the words and if you mail us your completed paper, we will send you a free gift certificate!

WATERSHED	WATER	DRAINAGE	STREAM
CREEK	OCEAN	PRECIPITATION	DIVIDE
DOWNHILL	FRESHWATER	CYCLE	MOUNTAINS
TRIBUTARY	DELAWARE	GREAT LAKES	OHIO
POTOMAC	SUSQUEHANNA	BASIN	RESTORE

M	O	U	N	T	A	I	N	S	E	E	T	A	B	S	M	W	I	P	K	O	D	I	V	S	T
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C	R	E	G	N	U	O	H	Y	N	A	D	G	V	E	R	T	P	O	M	C	A	I	D	V	E
S	G	T	R	K	W	A	T	R	E	S	D	E	B	A	O	S	U	S	V	N	M	S	H	A	F
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Name _____ Age _____
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Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated
 A PA Non-Profit Organization
 3016 Unionville Road
 Cranberry Twp., PA 16066

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Thanks to The William & Frances Aloe Charitable Foundation, Environmentally Innovative Solutions, LLC, Dominion Peoples, Amerikohl Mining, Inc., Quality Aggregates Inc., Drs. Ron & Kathy Falk Family, BioMost, Inc., Allegheny Mineral Corporation and PA DEP for their support. For more information contact: Slippery Rock Watershed Coalition, c/o Stream Restoration Incorporated (PA non-profit), 3016 Unionville Road, Cranberry Twp., PA 16066, (724)776-0161, fax (724)776-0166, sri@streamrestorationinc.org, www.srwc.org. June distribution: 1302

Highlighting Other Partnership Efforts (HOPE!)

Partnerships in the Bennett Branch Watershed

By Kim Lanich, Elk County Conservation District

On an exceptionally warm April day, members from the Bennett Branch Team, DEP representative **Secretary Kathleen McGinty**, and other elected officials met to discuss the environmental problems facing the Bennett Branch Watershed. Deep in the heart of elk country, Acid Mine Drainage (AMD) is a major problem affecting water quality to many tributaries flowing into the main stem of the Bennett Branch. AMD in Elk County is directly linked to over one hundred years of mining, and as you can see in the photo, mining is still part of the economic industry today.



This photo represents the many partners that have joined the efforts of the Bennett Branch Watershed since its inception. In 1998 the Bennett Branch Watershed Association (BBWA) formed to begin the restoration work needed on the Bennett Branch to restore it to its pre-mining condition, and in 2004 the DEP completed an assessment of the work required to abate the impacts of the mine drainage on the Bennett Branch. After the assessment, the **Mineral Resources Management (MRM) Deputate** organized the "**Bennett Branch Team**" comprised of **Department of Environmental Protection** staff from the Cambria Office of the **Bureau of Abandoned Mine Reclamation (BAMR)**, the Moshannon and Knox offices of the

Back row left to right: Tom Malesky-BAMR; Ken Stossel-P&N Coal Co; Jeff Ream-Gannett Fleming Inc; Steve Fisanick-BAMR; John Dzemyan-PA Game Commission; Jeff Gilmore-BBWA; Steve Garbarino-US Army Corp of Engineers; Kelly Burch-DEP; Don Wood-BBWA

Front row left to right: Kim Lanich-Elk Conservation District; Margaret Dunn-BioMost, Inc; Dan Surra- State Rep; Kathleen McGinty-Secretary DEP; Ken Rowe-President Bennett Branch Watershed Association; Eric Cavazza-BAMR; John Prushnok-P&N Coal Company; Michael DiMatteo-PA Game Commission; June Sorg-Elk County Commissioner; Howard Brush-Director of Governors Northwest Regional Office.

Bureau of District Mining Operations, and members of the **BBWA**. Since then, many others have joined this team such as: the **Baltimore District of the US Army Corp of Engineers**, the **Elk County Conservation District**, the **PA Game Commission**, **Gannett Fleming**, **P & N Coal Company**, **Earthsavers**, and the newest partner **BioMost, Inc.** The Bennett Branch Watershed Association is fortunate to have such a diverse, highly qualified team remediate the many AMD issues plaguing the watershed.