

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

THIS MONTH'S MEETING: The June meeting of the SRWC is cancelled due to the ASMR/WPCAMR/ARRI Conference. The next meeting will be Thursday, July 8. 5/13/10 meeting attendance: C. Denholm, M. Dunn, G. Kefeli, V. Kefeli, W. Taylor, S. VanDerWal

Going "Batty"

Shaun Busler of Stream Restoration Inc. and a participant in the SRWC had a unique opportunity in April to tag along with a bat team in pursuit of the federally endangered Indiana bat (*Myotis sodalis*). Leading the team was **Cal Butchkoski**, the state bat expert for the Pennsylvania Game Commission. The study involved briefly capturing the Indiana bats as they emerged from the winter hibernacula and tracking their migration to their summer roost sites. This year's study involved the largest bat hibernacula in the state, an abandoned underground limestone mine. The large mine complex located near Kittanning, PA houses over 100,000 (!!!) bats every winter. Of these 100,000 bats only 100 are Indiana bats. Most of them are the very common little brown bats (*Myotis lucifugus*). Only 1,000 Indiana bats are estimated to live in Pennsylvania.



The evening began by setting up large plastic sheeting across the entire length of the entrance. Then two holes were cut into the plastic in order to funnel the bats to those locations. Harp traps, a large device used to safely capture the bats, were placed in front of the two holes. Then, the team waited until the bats emerged from the mine to feed on insects and start their migration. The traps were checked periodically and all bats were identified by species and sex. Six female Indiana bats were captured at the site. Each of these bats was weighed, tagged, and examined. Prior to being released, a transmitter was attached on their back to allow tracking.



When the bats were released, the chase was on! Several vehicles and an airplane outfitted with tracking equipment followed each bat to the roost sites. This tracking went on for weeks until the transmitter's batteries finally died. Two Indiana bats were successfully tracked during the entire time of the study, with one of the bats inhabiting a maternity roost near the West Virginia/Pennsylvania line. Some bats are thought to travel as far as Kentucky to their summer roost sites!!!



Bats are very important to the local ecosystem. One bat can eat between 600 and 1000 mosquitoes and other insect pests in just one hour! Sadly, hibernating bats in the northeast US are dying in record numbers, and scientists are not sure why. The affliction called White Nose Syndrome gets its name from the white fungus found on the muzzles and wings of affected bats. It is thought to have been brought over to a cave in New York by spelunkers from Europe, and has now been found in 9 states. Research and studies are continuing to try to find a cause and cure.

Thank you to **Cal Butchkoski, Greg Turner, Colleen Patterson, Lee DeWolski, Cindy Hauser, Stacy Wolbert, Tammy Colt, Rich Fritsky** (PGC), **Aura Stauffer** (DCNR), and **Matt Schirmacher** (BCI) for allowing Shaun to be a batman for a couple of nights to learn more about this amazing creature!



Beth Rhin, graduate student in Slippery Rock University's sustainable systems program and **Galina Kefeli** participate in the planting of stem cuttings of willow and poplar for the Rotarian Club Landscape Rehabilitation Project (see back page).

2010 National Council on Education for the Ceramic Arts (NCECA) Conference

By Laurie Popeck

My first day representing Clean Creek Products (CCP) at the 44th Annual NCECA Conference (<http://nceca.net/>) in Philadelphia, with its theme of independence, was an eye opening experience. As a scientist, not a potter, I quickly realized that I was in for a great learning experience. I met enthusiastic people who were happy to share their knowledge. The NCECA Green Task Force (GTF) (www.ncecagtf.com) could not have been more gracious. **Robert Harrison**, GTF Chairman, and **Brian Kohl**, NCECA Communications Director, immediately welcomed me and CCP as part of their "Green Team." The GTF recognizes that ceramic arts flow from the creative fusion of earth, air, water and fire. These natural elements are respected and their focused concern is to protect them. The GTF accomplishes this goal by practicing environmental responsibility and environmental best practices in its business and by its individual members.

The owner of the Ceramic Shop, **Mark Lueders**, hosted a Vendor Party at his amazing and unique show room, which was formerly a knitting mill. Mark and his wife cordially welcomed the vendors for a wonderful evening that had a great "Philadelphia Flavor" with local specialty food and drinks! During the conference, I networked with members of the GTF who had awesome volunteers that shared important "green" information with the attendees. **Ben Culbertson** had a Vegetable Oil Based Alternative Fuel Burner System that was the result of the findings from a grant project at Shipensburg University to produce a kiln and firing system that will fire from start to finish on vegetable-based fuel sources including waste vegetable oil, biodiesel and glycerin (a by-product of the biodiesel process with high BTU content) (<http://ceramicartsdaily.org/ceramic-supplies/ceramic-raw-materials/the-wisdom-of-crowds-green-research-in-universities/#more-55111>). **Diana Pancioli** focused on "Cone 6 Reduction" (<http://www.dianapancioli.com/downloads/GlazeForward.pdf>) and how they save energy.

CCP provided interested attendees with samples of our recovered low-pH iron oxide and manganese oxide. They were excited to see that these metals were recycled from abandoned mine reclamation projects in Pennsylvania, not mined from another continent. I reminded the potters about using their safety equipment when adding the iron and manganese to their glazes. CCP is looking for a production potter to help create functional pottery for our expanding online green store and the conference provided a great opportunity to meet interested artists. My voice was almost gone by the end of each day, but I really enjoyed talking to each and every attendee.

The NCECA Conference focus was on "an individual and the choices they make." To me, this applies to everyday aspects of life, not just pottery. The choices we make have an impact on the people and environment around us. I am looking forward to attending next year's conference **March 30-April 2, 2011** in **Tampa/St. Petersburg, Florida** at the Tampa Convention Center as well, and I hope to continue learning more about this amazing field.

The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY

It's a Bug Hunt!

Many people commonly use the word "bug" to describe any insect, but technically an entomologist (a scientist who studies bugs) uses "bug" to refer to an insect with piercing-sucking mouthparts that it uses to suck sap from plants and body fluid from animals. True bugs include common pests like the bedbug, chinch bug, squash bug, and stinkbug. These bugs and other insects are listed below for you to find in the word search. Try to find all the hiding insects and circle them! If you mail us your completed paper, we will send you a free gift certificate!

cricket
katydid
dragonfly
stinkbug
squash bug

cicada
leafhopper
aphid
housefly
gnat

firefly
ant
honeybee
bumblebee
wasp

butterfly
moth
cockroach
water strider
bedbug

G	B	K	A	V	W	A	E	E	B	Y	E	N	O	H	W	A	C	D	B	E	J
T	L	E	V	H	B	K	U	A	W	Z	C	E	V	P	M	R	M	I	T	H	O
D	N	O	Y	B	E	N	L	E	W	C	M	O	T	H	D	G	N	H	F	L	H
Q	U	A	X	G	B	N	E	W	S	O	M	W	H	E	R	O	S	P	B	D	E
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Name _____ Age _____

Address _____



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated
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International Biomass Conference & Expo

The Minneapolis Convention Center played host to the Biomass Conference on May 4-6, and among its 1750 participants was the SRWC's own soil scientist, **Dr. Valentin Kefeli**. On May 6, Valentin presented a talk entitled "2nd Generation Biofuels: Composting — A Natural Pretreatment for Forest Residue." Valentin discussed a "second generation" of biofuel production using forest elements, including wood, bark, and leaves. Valentin shared with the audience his knowledge and use of fabricated soil, which is composed of minesoil, dry leaves or urban waste, sawdust, pond sediment, mushroom compost, and topsoil. He shared the results of the study, illustrating how fabricated soils have a greater variety of bacteria and significantly higher concentrations of many types of microorganisms and of how the environment and soil quality are improved during composting that is used as a biofuel pretreatment. Valentin concluded that when compared with chemical processing, the Biomass Natural Process is sustainable, and restores the soil and improves the environment. Co-workers on this project were **Chris Leininger**, **Shari Mastalski**, and **Joshua McGinnis** from the SRWC, and **Marc Portnoff** from the Carnegie Mellon University Center for Advanced Fuel Technology.

Rotarian Club a Big Help to Landscape Rehabilitation Project

Many thanks to the members of the **Rotary Club of Slippery Rock** for their hard work in volunteering to make 500 cuttings of willow and poplar trees in the month of April to help with a new landscape rehabilitation project led by the SRWC's **Valentin Kefeli!!!** 200 square feet (!!!) of fabricated soil were used for the installation of the new project. Many Rotary volunteers helped with the effort such as spreading compost and topsoil, preparing cuttings for rootings, transplanting willow and poplar plants, and preparing leaves for fermentation (with part of the project being to study leaves and wood as a source of carbon for biofuel production). The Rotary Club provided Valentin a generous donation which was used to purchase some fabricated soil components and tools for this new project, located at Jennings Environmental Education Center. Also thanks to the Rotary Club of Slippery Rock, Valentin and his students were able to establish a new fabricated soil nursery, with a portion of the old plants transplanted to the De Sale 2 Passive Treatment System site this year. The willows at the De Sale site have had vigorous growth reaching 3 feet in height. More plants were added by Valentin and his students this year at De Sale. The Rotary Club has been a big help!!! Rotary International is the world's first service club organization, with more than 1.2 million members in 33,000 clubs worldwide. Rotary club members are volunteers who work locally, regionally, and internationally to combat hunger, improve health and sanitation, provide education and job training, promote peace, and eradicate polio under the motto Service Above Self. To learn more, visit www.rotary.org.