

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

THIS MONTH'S MEETING: Thursday 3/13/08 at 7 pm at Jennings Environmental Education Center, pizza and pop provided. **2/14/08 meeting attendance:** E. Best, S. Busler, C. Cooper, C. Denholm, M. Dunn, T. Grote, D. Johnson, G. Kefeli, V. Kefeli, C. Leininger, S. Mastalski, B. Rihn, J. Schwarz, K. Schwarz, S. Smith, W. Taylor, S. VanDerWal

SRU Students "Love" their MS3 Program!

On Valentine's Day, 3 students from the **MS3 program** at **Slippery Rock University** presented research findings on "The Sustainability and Regeneration of Ecological Systems in Western Pennsylvania, USA" at the monthly meeting of the SRWC. Students **Katie Schwarz**, **Beth Rihn**, and **Shari Mastalski** have been working under the supervision of MS3 instructor **Chris Leininger**, as a legacy of research and efforts continues. Chris (pictured at left) graduated from the MS3 program in the 1990s, is on the SRU faculty, and works as a home designer/builder, designing straw-bale houses. He has a firm grasp on the 150-year-old technique of building walls from hay, having already built several structures, one as part of his thesis for his master's degree in the MS3 Program.



The Masters of Science in Sustainable Systems (MS3) Program at Slippery Rock University was established in 1990 to prepare students to face the pressing environmental challenges of the future by focusing on sustainability. Students study and practice sustainability through the integration of agriculture, natural resource management and the built environment with particular emphasis on the design and management of productive systems that reflect the diversity and resilience of natural systems. The program embraces the human element in the landscape, searching for sustainable ways to satisfy food, energy, shelter and other material and non-material human needs. These academic courses include exercises in creative design and problem solving, laboratory and field experiences, and non-curricular opportunities for learning and practicing sustainability through the **Robert A. Macoskey Center**, the surrounding community, internships, and other campus-related projects.

Each student presenter built on the previous information shared by the others, representative of their method of sharing and teamwork in their research work. Beginning the February 14 presentation was Katie, who was also the first student involved in the project. She was followed by Beth, who was then followed by Shari, the newest student on the research team, having only been working on the project for a couple of weeks. The students' sustainability project centered around transplanting willow plants from **Jennings Environmental Education Center (JEEC)** to passive treatment system site DeSale Phase II, in Venango Twp. Katie began the work using 4-5 year old willow trees, which resembled shrubs. After cutting these willows down she was left with their stumps. These stumps were transplanted to the DeSale site to provide another location to harvest willow cuttings and create habitat and structure at the passive treatment system. Beth continued the work as she then took willow branches from the cuttings, rooted some of them, and planted several at JEEC. The students were interested in seeing where the roots came from. After cutting slices of the bark and pulling it up, it was revealed that the roots originated in the cambium region. The students were also excited with the remarkably good survival rate of 80% of the willows! The SRWC is grateful to the SRU students for sharing their research work and looks forward to more interesting studies in the MS3 Program.

Closing remarks were made by SRWC soil scientist **Dr. Valentin Kefeli** (pictured at right), who worked on an interesting aspect of this research project. Valentin believes the willow cuttings act as a chemical buffer against the chestnut blight. So far, nearly all of these chestnuts have survived. Also of note is that Valentin is doing his plantings on a fabricated soil made of a mixture of topsoil and pond fines (fine particles of clay and limestone resulting from the processing of limestone aggregate). Chestnut blight is a fungal disease accidentally introduced to North America around 1900, which has virtually eliminated the once widespread American chestnut tree. Research is ongoing across the country by many individuals and organizations to overcome this disease and re-introduce the American chestnut back into its native land. How exciting to have a chestnut blight research project going on in the Slippery Rock Watershed!



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Part of the partnership effort that has made Clean Creek Products possible include (Left to Right): Betty McDevitt, Ray Nelson, Lois Hamilton, Margaret Dunn, Bob Isenberg, and Cliff Denholm. Look for more information about Clean Creek Products in future issues.

Boscov's Green Day

Boscov's Department Store invited the **Slippery Rock Watershed Coalition** to have a display at their January 19th **Green Day** event. **Margaret Dunn** and **Tom Grote** represented the SRWC with a poster display near the inner mall entrance of Boscov's at Clearview Mall on Route 8 in Butler. The event took place to highlight environmental efforts in the area. Many local organizations took part in the festivities, which included playing environmental-themed movies in the Boscov's auditorium. Margaret and Tom enjoyed the chance to share educational information on the SRWC's mission and accomplishments with the Saturday shoppers, including information on public/private partnerships and the use of passive treatment systems. They also used the opportunity to showcase the SRWC's **Clean Creek Pottery** endeavor. **Clean Creek Products** (CCP), a division of Stream Restoration Incorporated, has been formed to market the metals recovered in treating abandoned coal mine drainage. Business was good at the Green Day event, as Margaret and Tom sold several pieces of Clean Creek Pottery, including serving bowls, mugs, and other unique pieces. Clean Creek Pottery gets its unique coloring from the iron and manganese pigments taken from the recovered metal precipitates from the SRWC's passive treatment systems. A portion of all proceeds from CCP purchases will be donated to the efforts of the SRWC and other local watershed groups to help keep local streams clean. Look for more information about CCP in the next few months, as the SRWC is looking forward to attending the 42nd Annual Conference of the National Council on Education for the Ceramic Arts at the David L. Lawrence Convention Center in Pittsburgh, March 19-22.

Excellent Experience at the Expomart: Thanks to Jane Nugent!!!

Jane Nugent, host of "**Garden Talk**" **1360-AM WPTT**, generously invited the SRWC to share a booth at the **2008 Indoor/Outdoor Home and Garden Show** held at the Monroeville Expomart on January 24-27. It was "master gardener" and "master reclamationist" teaming up, as Margaret Dunn was there representing the SRWC. Besides giving demonstrations on the latest gardening tips and "tried-and-true" approaches, Jane met many of her loyal listeners and addressed their specific home gardening issues. As always when working with Jane, this was a non-stop, "high energy" event. The opportunity to share in the excitement and to talk to people about watersheds and the tireless work of grassroots organizations was very much appreciated. (200 of the SRWC educational flyers were quickly depleted!!!!) Jane Nugent has been a regular participant and sponsor of the **Ohio River Watershed Celebration** and has encouraged the efforts of watershed groups throughout western Pennsylvania. "Garden Talk" can be heard live on **1360 AM, WPTT Radio Saturday afternoons from 1:30 pm to 3:00 pm**. The Home and Garden Show provided the perfect platform for the two talkative ladies, as Jane loves to talk gardening in the 21st century and Margaret loves to restore streams in the 21st century! **Thank you Jane for providing this wonderful opportunity!!!**

The KIDS Catalyst

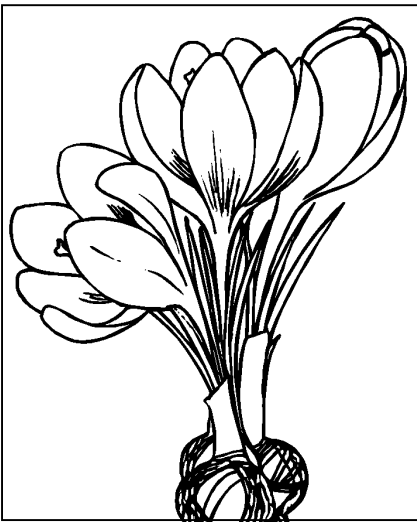
SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY

The Colors of Spring

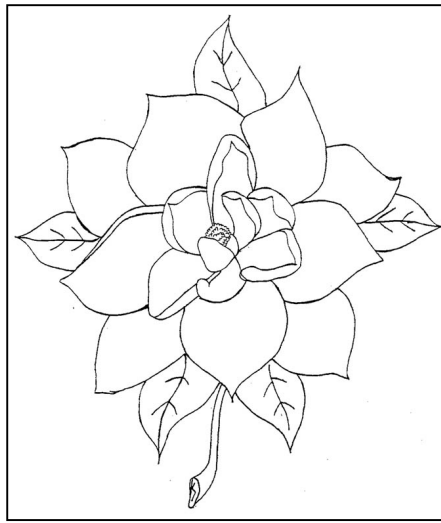
Spring is almost here! March 20 is the first day of spring, and soon the flowers will be blooming with beautiful colors and sweet scents! We have 6 flowers below for you to color— you may notice some of these growing in your yard, neighborhood, park, etc.! Use the numbered key of colors to color the flowers accurately. Some of these 6 flowers can typically be found in different colors, but we chose the more common colors to help you spot them in nature. Have fun coloring, and enjoy spring! If you mail us your completed picture, we will send you a free gift certificate!

1 = yellow 2 = purple 3 = white 4 = orange 5 = red

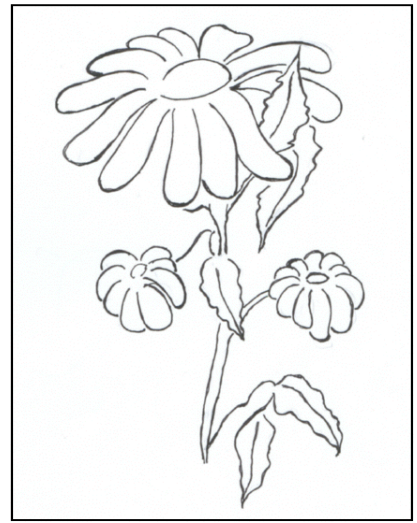
Crocus (2)



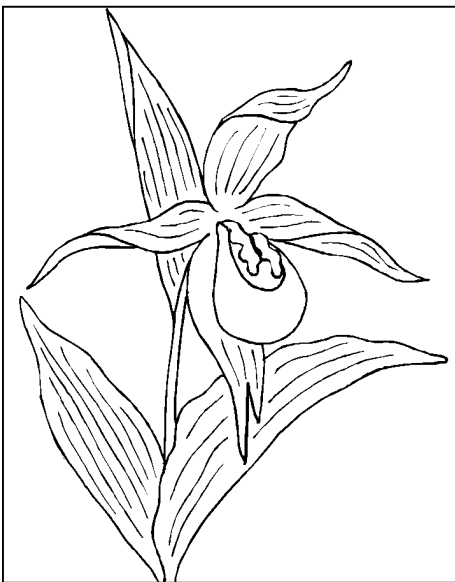
Magnolia (3)



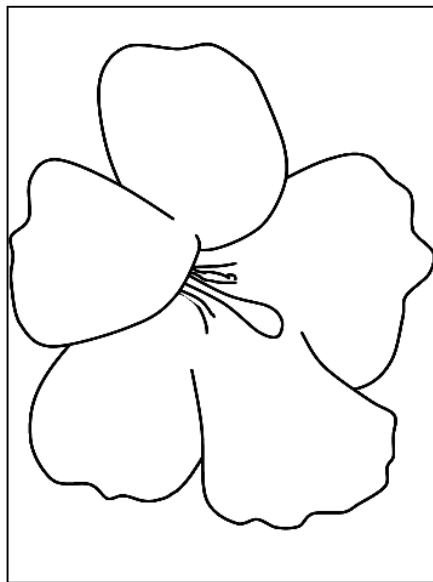
Daisy (1)



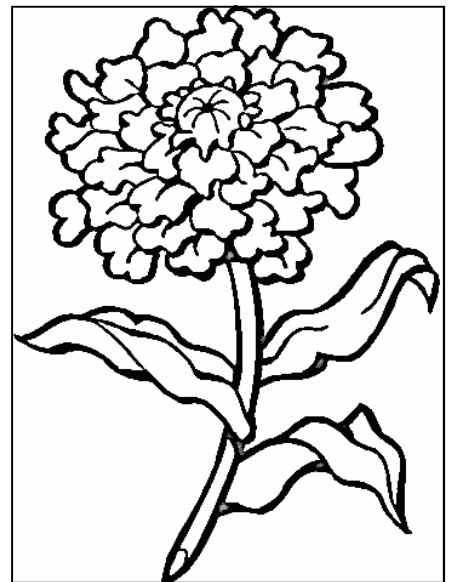
Orchid (2)



Hibiscus (5)



Marigold (4)



Name _____ Age _____

Address _____



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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ARRI is Making a Difference: Trees for Appalachia's Future

Jennings Environmental Education Center, working in conjunction with the **Office of Surface Mining (OSM)**, **Quality Aggregates**, and the **Slippery Rock Watershed Coalition**, is pleased to announce an upcoming event demonstrating ARRI on **Friday, April 25**, to be held at JEEC. The **Appalachian Regional Reforestation Initiative (ARRI)** is a coalition of groups, including citizens, the coal industry, and government, dedicated to restoring forests on coal mined lands in the Eastern United States. ARRI was established in early 2004 as an initiative of the Office of Surface Mining. This initiative is important for several reasons, including (1) Economically: High quality timber can offer substantial revenue for landowners and job opportunities for local residents; (2) Environmentally: Trees minimize soil erosion, help conserve water resources, and provide wildlife habitat and diverse plant species; (3) Recreationally: Restored forests have value for hunting, hiking, mountain biking, camping, bird watching, backpacking, ATV riding, etc.

Dave Hamilton, program specialist from the **OSM Harrisburg** area office, will be on-hand at this educational April 25 event, and everyone is welcome to attend, including students. Chestnuts and other hardwoods will be planted on a small test plot at the JEEC passive treatment site and volunteers are encouraged to help plant and learn first-hand about these valuable, renewable resources! The American chestnut tree once dominated eastern forests, with 25% of the trees from Maine to Florida and west to the Ohio Valley being American chestnuts. The tree used to be known as the "Redwood of the East" – a strong, hardwood tree that provided an economic and ecological powerhouse throughout its natural range. One of the greatest ecological disasters in North America came about with the introduction of a fungus to New York from Asia in about 1900. By 1950, this pathogen had killed an estimated 3.5 billion American chestnut trees, nearly all of them in the United States.

The American Chestnut Foundation has been working for more than 25 years to develop a blight-resistant American chestnut to restore this great tree of the eastern woodlands. At breeding orchards in Virginia and at Penn State University, the foundation's scientists have taken Chinese chestnut trees, which are resistant to the blight, and bred them with their American cousins over several generations. The most recent generations of hybrids have nearly 95 percent of the American chestnut's genes, combined with the blight resistance of the Chinese chestnut. The project is producing seeds and seedlings to replant across the American landscape. An American chestnut, representing 25 years of crossbreeding science, was recently planted on the grounds of the U.S. Department of the Interior to mark in part the 30th anniversary of the signing of the Surface Mining Control and Reclamation Act (SMCRA) which has regulated mining of *29.5 billion tons* of coal!

We hope you will join us at JEEC on April 25 to share in this worthwhile event, learn more about interesting topics such as the American chestnut and passive treatment of acid mine drainage, and make a difference in the health of the Slippery Rock Watershed!