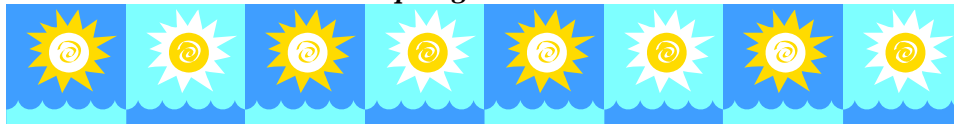


# Environmental & Natural Resource Issues

**Newsletter of ENRI Task Force  
University of Kentucky ▪ College of Agriculture**

*Spring 2005*



Water Quality Research at the  
University of Kentucky

How can we protect water quality in Kentucky from potential bacterial pathogens and water contaminants we can't see? This is one of the questions being asked by Dr. Mark Coyne and his associates in the Soil Microbiology and Ecology Laboratory at the University of Kentucky. Currently Dr. Sloane Ritchey, a post-doctoral research associate, is using molecular and cultural techniques to determine the source of fecal indicator bacteria in the W. Hickman and S. Elkhorn Creek watersheds. The goal is to create a database of bacterial signatures that show whether contamination is coming from a specific animal waste source. Another goal is to see if the signature of fecal bacteria changes when water moves from Lexington to the Kentucky River in both creeks.

The Soil Microbiology and Ecology Laboratory are also working with Dr. Gail Brion of Civil Engineering and Dr. Alan Fryar of Geological Sciences to determine how fecal bacteria absorb to sediments and how that effects karst environments and groundwater supplies. Questions being considered are: can bacteria survive for extended periods in the aquifers and how easily can they be released from the sediment.

At the UK Experiment Station Farm in Lexington the focus is not on bacteria but on dissolved elements. In collaboration with Steve Workman of Biosystems and Agricultural Engineering, graduate students are examining how changes in the water table of constructed wetlands can affect nutrient removal and carbon loss from various riparian plants. Coyne and Workman are also collaborating with Dr. Steve Higgins to find ways of using previous concrete and constructed wetlands to treat waste water produced by animal holding facilities at UK's Woodford Co. Farm.

## *Upcoming Events and News to Use*



### 2005 National Conference on Urban Ecosystems Program



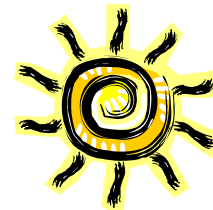
Nature at Your Service is hosting the 2005 National Conference on Urban Ecosystems **November 17<sup>th</sup> -18<sup>th</sup>, 2005**. This program is held at the Westin Hotel in Charlotte, North Carolina. The workshops will be held on **November 16<sup>th</sup>-19<sup>th</sup>**. The purpose of this program is to reconnect people in urban areas to their cities' natural resources. The program hopes to show how the natural resources can help cities meet regulatory requirements for clean air and water, revitalize neighborhoods, and reduce the costs of building and maintaining infrastructure. The conference will emphasize latest technologies, emerging public policies, and tools to help put the urban forest to best use. For more information about the conference, speakers and motivators, and travel information visit <http://www.americanforests.org/conference/>.

### Southern Region Water Quality Conference

The tenth biennial Southern Region Water Quality Conference will be held in Lexington, KY on October 23<sup>rd</sup>-26<sup>th</sup>, 2005. The goal of the conference is to strengthen the capacity for extension agents and other natural resource professionals to develop and deliver successful water quality programs by: (a) providing an opportunity to share successful education strategies and programs; (b) addressing current and potential water quality and environmental issues; and (c) providing a form for exchange of ideas and information. Scholarships for University of Kentucky Cooperative Extension Service Agents may be available depending on funding opportunities. If you are a UK Cooperative Extension Service Agent and would like more information about potential scholarships, please contact Ashley Osborne at 859-257-2505 or [arich2@uky.edu](mailto:arich2@uky.edu). For more information about the conference please visit [www.ca.uky.edu/water](http://www.ca.uky.edu/water) or contact Ashley Osborne.

### Kentucky Association for Environmental Education Conference

The Kentucky Association for Environmental Education will be holding the 2005 conference on September 9-11 on the campus of the Big Sandy Community & Technical College, Prestonsburg. The theme for this year is "Everything Under the Sun". This conference strives to be an outstanding opportunity for educators to become better prepared to teach about the environment in Kentucky. The conference presentations will focus on Kentucky energy, natural resources and how non-formal and formal educators work together in and out of the classroom. For more information please visit <http://www.kaee.org/conference.htm>.



## *Save the Date*

- Princeton Field Day. July 28<sup>th</sup>, 2005. Research & Education Center Highway 91 South Princeton, KY. From 8 AM -3PM (CDT). For more information contact your county Cooperative Extension Service Office or the Research & Education Center, (270) 365-7541, Ext. 221 or <http://www.ca.uky.edu/wkrec/index.htm>.
- Sheltoewe Trace Hike in Celebration of Natural Resource Week. September 10<sup>th</sup>-22<sup>nd</sup>, 2005. Visit <http://www.ca.uky.edu/ENRI/sheltoewe.htm> for more information.
- Environmental Education Week in Kentucky. September 12<sup>th</sup> -18<sup>th</sup>, 2005. Visit [http://www.kaee.org/files/pdf/ee\\_week05.pdf](http://www.kaee.org/files/pdf/ee_week05.pdf) for ideas and resources for EE week.
- Bluegrass Energy Expo. September 24<sup>th</sup> & 25<sup>th</sup>, 2005. Lexington, KY. For more information contact Ben Perry at 606-256-0077 or [benperry@a-spi.org](mailto:benperry@a-spi.org).
- Beargrass Creek Roundtable meeting. August 5<sup>th</sup>, 2005. University of Louisville, Shelby Campus. For more information contact Angela Kessans at 502-338-7874 or [kessan00@earthlink.net](mailto:kessan00@earthlink.net).



## *Surfing the Internet*

Ecosystem Services Blog (from the Forest Service), <http://www.ecosystems-services.usda.gov/>.  
A website that allows you to share articles and commentary on the emerging issue of ecosystem services.

Pollution Assessment and Prevention Team <http://www.uwex.edu/farmandhome/wqpaap/AgroEco.html>.  
This is an online bibliography that contains a list of research projects on alternative farming systems and Agroecological research with implications for water quality.

Kentucky's wildflowers <http://www.kywildflowers.info>.  
This site allows one to sort Kentucky's wildflowers by season or by color.

# Summer Intern's Experience



*Submitted by Jacquetta Wilson*

Hello! My name is Jacquetta Wilson and I am working as an intern this summer with Amanda Abnee and Ashley Osborne for the Environmental and Natural Resource Issues Task Force. I guess you want to know a little background information about who I am. I am a native of Trigg County. For some of you who are not familiar with Trigg County it is by Lake Barkley State Resort Park in Cadiz, Kentucky. I am a recent graduate from the University of Kentucky with a major in Biology. I am grateful as well as thrilled to be given this opportunity to work with Amanda Abnee and Ashley Osborne this summer as well as the Cooperative Extension Service.

My summer began with planning for a one in a lifetime experience- Forestry Camp. The Kentucky Leadership Forest Camp (KFLP). KFLP was held in Jabez, Kentucky June 6-10, 2005. A variety of activities had been planned for this week such as water sampling, GPS and GIS activities, as well as soil sampling. I had a slight idea of what to expect from this camp. What they left out is that I would have to conquer my biggest fear-snakes! Yes, you heard it-snakes. Now, do not get me wrong, I am biology major but playing with snakes is not my forte. Not only did we stumble upon a snake, but two were captured. The first snake I discovered while preparing for a special edition of the Amazing Race. It was just your average chicken snake except it was about three to three and a half feet long! A hog-nosed snake was captured by the students later that week. What was interesting about this particular snake, it decided to show us what he had for lunch. This, I guess, was his defense mechanism. Since this did not stop the students from taking him hostage, the snake turned over and played dead. This obviously was enough excitement for me!

So far, the summer has been great. I am currently and still learning about the various opportunities the extension has to offer. I also have had the opportunity to watch all the planning, time, and effort that goes into programs such as Forestry Camp. I am currently working on a downloadable display concerning open burning in Kentucky that hopefully will become useful to all extension agents throughout the state. The summer is just beginning and is far from being over so there is still work to be done!

*About this newsletter...*This newsletter is available on the World Wide Web in a PDF at <http://www.ca.uky.edu/enri/news.htm>. This newsletter is coordinated by Amanda Abnee ([acabne0@uky.edu](mailto:acabne0@uky.edu)) and Ashley Osborne ([arich2@uky.edu](mailto:arich2@uky.edu)), Extension Associates for Environmental and Natural Resource Issues, and Jacquetta Wilson, Cooperative Extension Service Intern.



Educational programs of the Kentucky Cooperative Extension Service serve all people regardless of race, color, age, sex, religion, disability, or national origin  
UNIVERSITY OF KENTUCKY, KENTUCKY STATE UNIVERSITY, U. S. DEPARTMENT OF AGRICULTURE, AND KENTUCKY COUNTIES, COOPERATING