



EXTRA! EXTRA! Read all about it! Environmental Literacy included U.S. Department of Education budget for first time! EE Needs You!

On the 1st of February, the Obama Administration unveiled its budget summary for the U.S. Department of Education. For the first time in history, the words “environmental literacy” appeared in that summary. Included in the section, “A Well-Rounded Education,” environmental literacy is listed, along with history, the arts, foreign languages, and economic / financial literacy as integral to a “complete curriculum.” This curriculum emphasis is paired with a strong focus on science, technology, engineering & math (STEM), use of innovation in teaching, rigorous standards & assessments, improving teacher equity & effectiveness, using data to improve instruction, and turning around low-performing schools.

According to the Campaign for Environmental Literacy (<http://fundee.org>), “the federal government currently spends less than 48 cents annually per capita on environmental literacy, of which a mere 20 cents per person goes to the field itself.” Thus far, environmental education (EE) funding has arrived through the U.S. EPA and has largely focused on non-formal, non-school-based programs. Inclusion in the Education budget offers a significant stride forward for environmental literacy in our schools - a stride which many believe is long overdue.

Research has shown that environmental education (education through, for, and about our natural environment and our connections with it):

- has a measurably positive impact on student achievement in science, reading, math, and social studies;
- helps increase student motivation and critical thinking;
- offers an integrated context to improve teacher quality and professional development;
- encourages greater appreciation of our natural resources throughout the Commonwealth;
- contributes to healthy lifestyles through outdoor recreation, exercise, and natural experiences;
- is often the pathway to future careers in science and math;
- can assist in creating a stronger economy through increased environmental literacy, 21st Century career and technical education;

- helps to build, along with expanded use of technology and training, a workforce for green jobs, clean energy, and sustainability.

The No Child Left Inside (NCLI) Coalition reports that “two National Science Foundation boards have called for a systematic approach to EE. A Roper Poll found that 95 percent of the public supports EE in schools.”

The NCLI Coalition (<http://nochildleftinside.org>), a national coalition representing over 47.5 million Americans, was formed to alert Congress and the public to the need for schools to devote more resources and attention to EE. KAEE is a member of the NCLI Coalition and a partner in the efforts to include EE and environmental literacy in the Elementary & Secondary Education Act (ESEA, aka No Child Left Behind). The No Child Left Inside Act would amend the ESEA to include EE for the first time and provide new EE funding - particularly to develop rigorous standards, train teachers and develop state environmental literacy plans.

As a KAEE member or supporter, consider taking action NOW to support these efforts:

- Send comments of support for EE and its inclusion into the ESEA Act to the Department of Education at ESEA.comments@ed.gov;
- Learn more about the NCLI Act and contact your legislators to support the Act. Currently, the NCLI Act has been sent to the House Committee on Education and Labor Committee as HR 2054 for review. (This Committee includes Kentucky’s own 2nd District Congressman Brett Guthrie, <http://guthrie.house.gov>.) In the Senate, S 866 has been sent to the Health, Education, Labor, and Pensions Committee. After review, committees may report the bill favorably or unfavorably to the full House or Senate bodies for consideration - or choose to not consider the bill at all, preventing the bill from moving forward. Visit <http://govtrack.us> and enter Bill # for info.

Join the NCLI Coalition! Currently, Kentucky has only 25 organizations represented. Join us; show your support for EE; help write this story!

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- **Newsletter Editor/Webmaster/Membership Coordinator:**
Matt Coddington - Webmaster@KAAEE.org

Membership Information:

Visit the KAAEE Web site at www.KAAEE.org or contact:

KAAEE
PO Box 17494
Louisville, KY 40217-0494

KAAEE is a nonprofit 501(c)(3) organization of teachers, administrators, government and agency personnel, business and industry representatives, and private citizens interested in promoting environmental education.

Visit us online at www.KAAEE.org

President's Pen

Although the recent Kentucky weather reminds us again and again that it's wintertime, there's no evidence of hibernation in the education and environmental education (EE) communities. Within the three short months since our last newsletter was released, the evidence and momentum for EE and environmental literacy has increased sharply.



Here are some winter 2009-10 highlights and resources for further information:

November 23: President Obama launched the "Educate to Innovate" campaign to improve the participation and performance of America's students in science, technology, engineering, and mathematics (STEM) <http://bit.ly/bLas5K>

November 23: A letter from 16 State Governors, including the Honorable Steve Beshear of Kentucky, was sent to U.S. Secretary of Education Arne Duncan, urging "that the Elementary and Secondary Education Act should be amended to make environmental education an integral part of the curriculum and to support state programs that provide these educational programs." <http://bit.ly/cZYvBL>

December 13: *Courier Journal* printed a joint article from the Presidents of four Kentucky higher education institutions (U of L, Centre, Berea, and UK) encouraging "a culture change toward energy sustainability" and greater focus on K-12 STEM education.

January 20: Kaiser Family Foundation announces study results: "Today, 8-18 year-olds devote an average of 7 hours and 38 minutes (7:38) to using entertainment media across a typical day (more than 53 hours a week). Time spent reading books remained steady at about :25 a day; time with magazines (:14 to :09) and newspapers (:06 to :03) dropped." <http://bit.ly/c786bb>

February 2010: Kentucky Environmental Education Council releases the 2009 "Land, Literacy, and Learning III," the most recent plan for improving environmental education in Kentucky. <http://bit.ly/c7Hez3>

February 1: Environmental Literacy is included in the U.S. Department of Education budget for the very first time. (Refer to the article on Page 1) <http://bit.ly/ah3tnl>

February 8: KY Governor Steve Beshear announced expansion of the Kentucky Energy Efficiency Program for Schools (KEEPS) - \$4.75 million in federal stimulus money to help expand an energy conservation program to the state's 174 school districts.

Communities like KAAEE are especially important in these days of potential and promise.

Sharing our experiences and perspectives on the benefits of environmental education in the classroom, in the "field," and in our lives, could make the difference between funding, legislation, and a sustainable environment – or the lack thereof.

Whether it's sending comments to the U.S. Department of Education or contacting your legislator (page 1), getting more involved with KAAEE (page 6), submitting a proposal for the KAAEE Conference (page 5), or simply sharing our newsletter and mission with someone new (<http://kacee.org>), we're calling on you to help us write this new chapter in the story of EE in Kentucky. Now – more than ever!

From Bregenz, Austria to Russell County Middle School

by Jean Clement, a KAEE Board member who currently teaches eighth-grade science and supplemental reading at Russell County Middle School. She joined the KAEE Board in 2010 with "hope to bring a teacher's perspective to the table and to improve environmental education in our schools."

"Sustainability is about making things last," tour director, Joe Baust, commented at the onset of the tour. This made an impression on me because this is what I witnessed on this remarkably memorable tour. At the close of the tour our charge was to decide what we would do with our experiences once we returned home.

What impressed me the most about sustainability in Europe was that it was obviously a mindset of the general population; it is the way things are done, from the fixtures and everyday practices in the homes, to the restaurants, businesses, facilities and transportation in the public sector - and even to the hydropower dam built inside a mountain and powered by melted waters from the glacier lake at Silvretta.



About eleven years ago, environmental education became a new passion for me, and it has been a challenge to teach EE in addition to the content required of me to teach in seventh and eighth grade science. The bulk of my environmental education in the public schools has been during an after school PRIDE club for the past ten years which met once a week every week throughout the school year. However, the Bregenz tour and completing KEEC's EE certification process (<http://keec.ky.gov/certification.htm>) came together and gave me a peace about it all, when I realized that there are some simple changes I can make to include EE in the classroom lessons I teach.

Sustainability practices, like I witnessed in Europe, did not just happen overnight...they are generational, so now is the time for me to start developing a mindset of sustainability within the students I teach. I must get the students outside as often as possible and give them investigative opportunities outdoors and chances to observe the environment and appreciate it.

For starters, I made a Think Green bulletin board for the first week of school and made it informational for the students. I use it for posters, flyers, and energy-saving campaigns throughout the year. I take advantage of special events such as America Recycles Day (<http://americarecyclesday.org>) and National Earth Science

Week (<http://earthsciweek.org>) by including related lessons and activities in regular instruction.

I have incorporated some outdoor activities that have been highly motivational and effective in teaching core content as well. I have been taking my eighth-grade science classes to the school's front lawn whenever possible for activities, for example using science journals to list living and non-living (and natural or man-made) things in the environment. It only took about fifteen minutes, and the students were eager to participate in the class discussion and writing activity when we got back inside.

We also went outside to observe and record as many stimulus (and external or internal)/response pairs, as we could in a ten-minute time period. Again, when the students got back indoors they couldn't wait to write their reflections and share with other students what they had observed outdoors.

I can also incorporate the outdoors into my first period literacy class; I plan to take students outside at least once a week for journaling activities such as naming nouns, verbs, and adjectives observed in the environment and writing descriptive paragraphs of their observations.

I have started an energy team in our school, and students often make comments like, "When is the energy team going to meet again? Why does Mr. So-and-So get irritated when I tell him we should turn off some of the lights in the cafeteria and turn off the big screen TVs because no one is watching them or listening to them? Can I be on the Green Team (the recycling team)?"

What these students need is environmental literacy, and I am finding some simple ways to integrate it even if it means having time for nothing more than leaving no child inside for at least seven hours a day and five days a week.

I will be eternally grateful for the opportunity of taking the Bregenz environmental education tour, and I hope that anyone who is or has been contemplating it will take the opportunity as well. It impacted my life in nothing less than a positive way and has already made me a more effective teacher, no matter what subject(s) I teach.

Kentucky Institute for International Studies (KIIS) wishes to invite applications to the following professional/study abroad program:

Environmental Education in Bregenz, Austria. The two-week program is designed for students, teachers, educators, and persons wishing to visit Bregenz, a city which for decades has been a leader for environmental sustainability. The program includes numerous field trips, to provide participants with active, hands-on experiences to assist in assessment and comparisons of environmental education and the associated values, ethics and responsible human actions that are a part of this region's cultures.

The geographic location of Bregenz; just a few miles from the German and Swiss borders, nestled on the shore of Lake Constance at the foot of the Alps, makes it an excellent location for exploring the historical, ecological and cultural aspects of Austria, Germany and Switzerland.

The program is offered July 6 - July 21, 2010. Participants may select academic credit (3 hours) at an undergraduate or graduate level, or participate for professional development. Program directors: Billy Bennett, Center for Environmental Education, Eastern Kentucky University, 859-622-2902, william.bennett@eku.edu -&- Dr. Joe Baust, College of Education, Murray State University, 270-809-2537, joe.baust@coe.murraystate.edu

NAAEE 38th Annual Conference: The Power of Partnerships

By Kevin Garner, an intervention specialist at Portland Elementary School, in Jefferson County.

The 38th Annual North American Association for Environmental Education Conference was held in Portland, Oregon on October 7-10, 2009. The purpose of the conference was to bring awareness of environmental education to the entire world.

The conference featured educational strands on major environmental issues and concerns including Environmental Justice and Cultural Diversity, Climate Change Education, Service-Learning and Community Education, The Arts and Environmental Education, Coastal and Marine Education, and Place-Based Education.

Things That I Learned

Cultural diversity events were instituted this year at the conference and were held each night. This nightly event was filled with cultural expression from Hawaiian to Native Americans performing music, native expression through dance, and the opportunity to see how they were keeping tradition alive within their cultures. This was an excellent way to meet people and share ideas about how to close the gap between minorities and the environment.

Attendees had the opportunity to discover the true meaning of giving back to the community. A service learning project sponsored by NAAEE through the Portland local Community Garden Program focused on organic gardening, composting, food sustainability and inter-generational activities. The participants worked with students to harvest crops, clean up the garden and mulch garden plots.



A scenic view of Portland, Oregon in October.

Participants got a once in a lifetime experience to ride on a working towboat ride at the Madison Street Fire Dock. RiverWorks Discovery, an interactive, multi-media science center that featured displays ranging from how humans are born to how humans age, to a display about how we respond to our fears, which included a cabinet with snake inside and viewer seeing the snake and sticking their hands in a dark encased closure. Not for the meek hearted!

The NAAEE has taken the time to help to educate participants on the importance of "Going Green" in our country. Going Green means more than just recycling. I discovered that African Americans are beginning to participate in learning about the environment. One of the discussions that I had was why is there a lack of support from minority communities. Educating diverse groups require members of the dominant culture to be aware of their cultural assumptions that are often unconscious. What I learned is humans are often influenced by people they can relate to, either culturally or racially. Now, with environmental education in schools, children are going home and educating their parents about the importance of "Going Green."

The truth of the matter is, even I wanted to learn more about saving our planet, so I learned more about composting. Composting is the decomposition of plant remains and other once-living materials to make an earthy, dark, crumbly substance that is excellent for adding to houseplants or enriching garden soil. It is the way to recycle your yard and kitchen wastes, and is a critical step in reducing the volume of garbage needlessly sent to landfills for disposal.

I learned more about sustainability, which is a paradigm for thinking about the world in which environmental, social and economic concerns are balanced. Its purpose is to allow the environmental education community to implement an education that prepares children and adults alike from all walks of society to work and live together in our ever-changing world. I learned about basic lessons on how to engage our students using a "hands on" strategy adopted from the traditions of the Native Americans. Through implementation, their philosophy could help us as educators reach more children in the 21st century.

We also discovered that the concept of incorporating technology to connect urban youth to nature is being implemented in Chicago, Illinois by the Peggy Notebaert Nature Museum. The students actually go to websites from various parks and facilities to view their environment and discover how it's maintained.

Kentucky's affiliate of the [National Energy Education Development](#), located in Covington, Kentucky, had developed the "blueprint" in educating students about lower energy consumption. They have an online guide that is available for download. They have developed a curriculum for educating students about energy while encouraging them to create a school energy team.

When I discovered a forum called "Environmental Education for the Hip-Hop Generation," I knew I could not miss a discussion on how to unite the environment education movement with the hip-hop generation. The North Bay Adventure Center took environmental education and combined character development, along with a multi-media focus. They targeted inner city and rural children teaching them about the importance of taking care of their environment. Students learned how to save energy, recycle, and build community relationships through the use of hip-hop music.

(Continued on page 5)

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Overall Impression of the Conference

One of the inspiring moments during the conference was when participants learned how they could connect urban and rural students with one another. They actually demonstrated to students from different socio-geographical areas that their lives were not as different as they had believed. Through conversation and working within the environment, students compared and contrasted their neighborhoods. I learned how to apply for grants to improve students' knowledge about their role within the environment and how to involve state and federal agencies with local organizations and consultants to connect urban and rural students.

NAAEE has really spent time focusing on how to involve the planet on becoming "environmentally aware." This year, the conference's main objective was to not just talk about what you're going to do for the environment, but do it! As an educator, I learned how to take garbage and convert it to art. I became even more aware of how my carbon footprint can affect everything that we do as planet. For instance, instead of driving everywhere learn to use an alternative source of transportation. Walking, bike riding, carpooling, purchasing a hybrid vehicle, and public transportation are very effective ways to reduce and save.

Use bags that are created from recycled materials when purchasing groceries, eliminating the use of plastic and paper bags. Instead of taking long showers, reduce your water consumption by monitoring your time to three minutes. Unplug all appliances that are not in use. When they are plugged in, whether the item is on/off, it uses energy. The most important aspect of the conference for me was how I can now change my role in saving our planet. As I educate children, I want to continue being the role model that inspires other African American children and parents alike to make better choices. After all, this is our world and taking care of it starts with all of us.

Learn more about the North American Association for Environmental Education at <http://naaee.org>. NAAEE's 39th annual conference will be held in Buffalo-Niagara Falls, NY, from September 29 - October 2, 2010. KAAEE is proud to be a state affiliate of NAAEE.

The 2010 conference committee has opened the Call for Presentations for the 34th Annual KAAEE Conference in Cave City September 17th – 18th, 2010.

Environmental education is poised to grow with the current green movement; yet, funding sources are drying up. This makes it more important than ever that we tell our story to students, families and other stakeholders. Brian Day, Executive Director of NAAEE and this year's keynote, will help us do that. We are looking for concurrent sessions to support that mission too, so send us your proposals! Of course, presentations on other environmental education topics are welcome so we can provide a well-rounded conference. You'll find the 'Call for Presentations' form and guidelines on the Conference page of our site: <http://kaee.org>. Please feel free to pass on this 'Call for Presentations' if you'd like to see that person or organization present at the conference.



Explore engaging and creative ways to tell the story of science, math, history, and the interaction between people and the environment at KAAEE's 34th annual conference.

Guest speaker Brian Day, Executive Director of the North American Association for Environmental Education, will share best practices in our field, and Kentucky storytellers will entertain and inspire all. Plan to join us this fall!

September 17-18, 2010
Cave City Convention Center

**Kentucky Association for
Environmental Education**

kaee.org



Members Matter! In the Mission Spotlight:

Aviva Yasgur



Aviva Yasgur is a talented environmental educator who knows how to spark children's interests in the natural world. Aviva works as a naturalist and the School Programs Coordinator at the Woodlands Nature Station, located within Land Between The Lakes NRA in western Kentucky.

When asked what she enjoys most about being an environmental educator, Aviva said, *"I have the privilege of doing something that makes a positive impact in the world. I get to create positive experiences for people everyday – make memories that are the highlight of a family's vacation, or encourage a child who likes animals to keep pursuing their interests. I get to do real things that make a difference to real people."*

In her job, Aviva enjoys designing and delivering educational programs tailored for children in grades kindergarten through second grade. Young kids need programs that are entertaining, hands-on and activity-oriented. Aviva's programs often incorporate creative activities such as songs, puppets, games, and costumes.

Aviva grew up in a densely suburban setting in New Jersey near the ocean. She recalls, *"spending lots of time at 'the shore.' I remember standing in the water, jumping over waves, feeling shells under my feet, and the salty smell of the air. Sadly, I also remember the year that they closed the beaches to the public because of medical waste washing onto shore. Growing up in New Jersey gave me a lot of opportunities to learn lessons about caring for the environment."*

Aviva's first environmental education job was an internship with the New Jersey Audubon Society. She says, *"My two supervisors were great role models due to their passion for what they did. I could also see how positively the nearby community supported the center's conservation efforts."*

One thing she enjoys about being outdoors is getting to know a place well over time. *"I love to hike the same trail over and over. Things change from season to season, year to year, and even week to week. I really enjoy developing this feeling of knowing one particular place very intimately."*

In her free time, Aviva enjoys playing guitar and songwriting. She loves hiking and is an avid reader and birdwatcher. Most importantly, Aviva enjoys spending time with her fiancé John.

Want to get more involved in KAAE and give something back to your association? Here are some fun ways that you can help!

1. If you are coordinating a workshop or training in 2010, why not team up with the KAAE Outreach Vision Team and make it part of the Professional Development Series? We can help you advertise it statewide and offer continuing education credits to participants. Contact Sarah Talley at 865-585-3759.
2. Write an article for the KAAE quarterly newsletter. It could be about a program you are doing, an environmental issue that you are studying, or your favorite natural spot in Kentucky. Contact Kate Shanks at kate.shanks@ky.gov.
3. Organize a Get Away Day in your area for 2010 to bring KAAE members and potential members together for a fun and educational activity. Contact Sonya Wood Mahler at sonyawoodmahler@yahoo.com.
4. Become an advocate in your community to put together a "Connecting Kids With Nature" meeting. Contact Amanda Patrick at amanda_patrick@fws.gov.
5. Plan now to bring a friend, colleague, or student to the annual conference. The two of you could lead a concurrent session together. Contact Peggy Nims at pnims@glasgow-ky.com.
6. Talk to members of EE associations in other states to learn what great things they are doing, or share your ideas with us from the EE association where you are from. Contact Sonya Wood Mahler at sonyawoodmahler@yahoo.com.
7. Talk to your elected officials about current environmental education topics and issues. Contact Jenny Howard at jenny.howard@ky.gov.
8. Find new partners, sponsors, and exhibitors for KAAE to work with this year. Contact Christian Ryan-Downing at Christian.ryan-downing@wku.edu.
9. Serve on a KAAE committee. If your talents lie in fundraising, contact Elizabeth Robb Schmitz at elizabeth.robbs@ky.gov. If you would like to help with publicity, contact Jennifer Adler, kingfisher@bellsouth.net. If you are interested in helping to make a better annual conference, contact Peggy Nims, pnims@glasgow-ky.com and Debra Spillman, dspillman@serct.com.

Exploring Lake Malone

Part of the KAEE GATOR (Get Away To Our Rivers) Days Series
April 17th, 2010
10:00am-4:00pm CST
Lake Malone State Park (between Bowling Green and Madisonville)

Join the Kentucky Association for Environmental Education for a day of kayaking on Lake Malone. Follow this beautiful lake past limestone cliffs and fern-lined coves. Black vultures nest on the cliffs above. Waterfalls drop to the lake below. Great Blue Herons and Belted Kingfishers fly ahead of you as you make your way along the shoreline.



Bring your own kayak or rent a kayak, paddle, and life vest from us. Improve your kayaking skills, learn more about the natural history of Kentucky, and make some new paddling buddies! Your guide on the river will be Sonya Wood Mahler, a life member and board member of KAEE. Sonya is an aquatic education specialist for Kentucky Department of Fish & Wildlife Resources and has led over twenty kayak trips.



The registration fee of \$10.00 covers guide service, insurance, snacks, drinks, and a paddling resource packet. Bring a picnic lunch. Minimum age for this trip is 12. Minors must be accompanied by an adult. Single kayak rental: add \$40.00. Meet at 10:00am at The Country Store, 5340 State Route 973, between Dunmar and Rosewood, just west of Lake Malone State Park, store: 270-657-2278.

Deadline for registration is Friday, April 9th. Send your name, e-mail address, and mobile phone number with a check, made payable to KAEE, to: Jennifer Adler, Treasurer, 1448 Cypress Street, Paris KY 40361. For more information about GATOR Days, contact Sonya Wood Mahler at sonyawoodmahler@yahoo.com or 270-584-4742.

Terrific Trout Trek

Saturday, May 15th, 2010
9:30am – 4:00pm CST
Wolf Creek National Fish Hatchery
50 Kendall Road Jamestown, KY 42629

Enjoy a behind the scenes tour of Wolf Creek National Fish Hatchery, including the new Visitor/Environmental Education Center, followed by a homemade picnic luncheon with the hatchery manager and some hands on work with our trout production team. Learn all about the day of a hatchery worker by feeding some hungry trout, learning how to sample count, stocking hatchery creek and more. Cap off your day with some fantastic, hands on trout fishing along the Cumberland River from 1:00pm CST – 4:00pm CST. Instruction will be provided by members of the Louisville based chapter of Trout Unlimited. Please come prepared with chest waders and your Kentucky fishing license with trout permit. All fly fishing gear provided.



To register: Visit <http://kaee.org> to register online or send this form with a check, made payable to KAEE, to:
Jennifer Adler, Treasurer
1448 Cypress Street
Paris, KY 40361

The cost is \$30.00 per KAEE member and \$45.00 per KAEE non-member registrant.

Questions? Contact Amanda G. Patrick,
Environmental Education/Outreach Specialist at
270-343-3797 or Amanda.Patrick@fws.gov



Project BudBurst: Combining Citizen Science and Climate Change Research

By Shannon R. Trimboli, Education Program Specialist at the Mammoth Cave International Center for Science and Learning, a partnership between Mammoth Cave National Park and Western Kentucky University.

Citizen science provides non-scientists of all ages the opportunity to help professional scientists conduct research and answer important scientific questions. Citizen science projects cover a wide variety of topics and can be international, national, regional, or local in scope. Associated educational resources including activities or lesson plans are often available for each citizen science project. Some even provide access to the databases so anyone can analyze the data to answer their own questions. As environmental educators, citizen science projects are another tool we can use to connect our audiences to the resources and move them towards action. Cornell University's Citizen Science Central <http://birds.cornell.edu/citscitoolkit> is a great online resource for finding and learning more about citizen science projects.

With spring approaching, one national citizen science project that is very applicable in terms of season and focus is Project BudBurst. Project BudBurst is coordinated by the National Phenology Network and is relatively new. This project uses plant phenology to track climate change. Phenology is the study of when things happen in an organism's life. Important phenology events for Project BudBurst include a plant's first bud opening, its first full leaf, its first flower, etc. By tracking these events over many years and across the

country, scientists can get an idea of how climate change may be influencing the phenology of the species studied and whether these changes are consistent across the country. Although data on any plant species can be collected, the organizers of Project BudBurst have identified target species for each state. These target species are ones that can be easily found and identified and are relatively widespread across the country or region. This allows for easier comparison of the data.



Virginia bluebells (*Mertensia virginica*) is one of 56 plant species that Project Budburst is targeting for Kentucky.

**Credit:
Dr. Thomas G. Barnes/USFWS**

Project BudBurst has many educational resources available on their Web site <http://bit.ly/c6M3en>. These resources include identification guides for the target species associated with each state, information on climate change, background information on phenology, and activity guides. Participating is as easy as signing up on the website, describing your site, identifying the plants you will be observing, conducting the observations, and entering the data. At the end of the year, Project BudBurst provides a summary report of the data that was gathered and posts a database containing that year's data. The database can be freely downloaded and analyzed by anyone who is interested in the topic. If you're looking for a new spring activity to include in your programs – one that could make a real difference – try Project BudBurst. It may be just what you're looking for!



Citizen Science Corner

I would like to propose a new column. This column would focus on citizen science projects – both providing information about projects in which our audiences can participate and highlighting citizen science work that we are already doing.

- Would you be interested in reading a column like that?
- Do you know of a citizen science project that you would like to tell others about?
- Are you currently conducting citizen science research with one of your audiences?
- Do you know someone who is combining citizen science and environmental education and should have their work highlighted?

Please send your comments and answers to shannon.trimboli@wku.edu.

Sustainability Conference in Lexington April 16-18, 2010

In April of 2006, Berea College hosted a conference called Campus Community Partnerships for Sustainability. It was a grand success, and colleges and universities around the state agreed that the conference should become an annual affair. In 2007, ECU hosted, and in 2009, WKU was the host. It is Bluegrass Community and Technical College's (BCTC) turn in 2010.



True to the name, BCTC is partnering with UK and Transylvania for this April 16-18 conference. The conference will include Friday afternoon sessions geared for K-12 teachers. Professional development certificates will be provided.

The keynote address, on Friday evening, will be delivered by author, journalist, and dynamic speaker Jeff Biggers. This address, to be on the UK campus, will focus on the issue of coal and mountaintop removal.

On Saturday, sessions focused on water/sewage, agriculture/food, energy/green buildings, transportation, and waste management will be held at BCTC's Leestown Campus. There will be a banquet on Saturday (Kentucky Proud, of course) and experiential field trips on Sunday morning. More information coming soon – see <http://greencampusky.org>. For further information, contact rebecca.glasscock@kctcs.edu; 859.246.6319.

A Squirrel Speaks

By Chris Hunter, KAEE Board member and employee of the Kentucky Department of Fish and Wildlife Resources at the Salato Wildlife Education Center in Frankfort.

As a naturalist, I love to learn about wildlife. I wish to share with you an interview that I had with one of your wild neighbors - a gray squirrel. His name is E.G. Squirrel. He frequently visits your backyard.

Chris: Well, E.G., I'm thrilled we could chat. Is there anything important that you would like to share with your human neighbors?

E.G.: Absolutely! My fellow squirrels and I encourage humans to FEED THE BIRDS. We worry about the welfare of birds during the fall and winter. Squirrels are committed to being "Quality Control Technicians" for birdseed. We vow to visit your backyard bird feeders daily to sample the food you put out. We inspect for quantity, quality, taste, and freshness. Our unselfish efforts benefit birds everywhere. Thanks to squirrels, people replenish their bird feeders daily. Our motto is, "Let no seed be stale!"



Chris: People often complain of squirrels destroying bird feeders and chasing away birds. I'm confused. How does this help the birds?

E.G.: This is a huge misunderstanding. All bird feeder manufacturers have secretly hired squirrels to be "Safety Inspectors." We jump on a feeder, hang from it, gnaw holes, pull it apart, and knock seeds out. If it passes our field inspection, we give it our "chewed hole of approval." Imagine the tragedy that could occur on an unsafe feeder. If the feeder can't handle the weight of a squirrel, it may not support a bird. Just picture a gorgeous, bright red Northern Cardinal landing on this feeder. What if the wire supporting the feeder breaks? This unsuspecting bird could plunge to its death!



When jumping onto feeders, we count the seeds that fall to the ground. If too many seeds fall out, we warn the birds feeding on the ground below. We don't want a falling seed to put a bird's eye out! I suppose a squirrel, running towards birds on the ground to warn them of danger above, might be mistakenly viewed as chasing them away.

Chris: I'm glad that we cleared up that misunderstanding. Here's a personal question. What does E.G. stand for? Is it just a nickname?

E.G.: My full name is "Eastern Gray Squirrel." My species is found throughout the eastern half of the United States and southern Canada. My upper fur and tail color is predominantly gray. I'm a tree squirrel commonly found in towns.

E.G.: Eastern Gray Squirrel is the official common name used for my species. However, some people call me different names in different places. I've also been referred to as "Cat Squirrel, Timber Squirrel and Silvertail." Humans often do the same amongst their own species. For example, people from Ohio are called "Buckeyes." Those from Indiana are called "Hoosiers." There's also a name for humans who think professional wrestling is a real sport, but I can't think of it right now.

Scientists call me *Sciurus carolinensis*. The first part, *Sciurus*, is Latin for "squirrel," which means "a creature that sits in the shadow of its tail." The second part, *carolinensis*, is a Latinized word meaning "of Carolina." Early European biologists first described and collected my species while exploring North Carolina. No matter where biologists find my species throughout the country, we are always referred to as *Sciurus carolinensis*.

Chris: How have you and your fellow gray squirrels been spending the fall?

E.G.: We have been busy gathering food for the fall and winter. Our favorite foods this time of year are hickory nuts, acorns and walnuts. Once we find a ripe nut that smells good, we carry it away and bury it. Stored nuts have no particular ownership. We use our keen sense of smell to locate buried nuts throughout the fall and winter.

Chris: What happens if the trees don't produce many nuts?

E.G.: That means hard times and possibly starvation for squirrels. We may resort to eating the nutritious inner layer of tree bark.

Chris: Is there anything that people can do to help?

E.G.: Well, I guess I should level with you about our concerns for the birds. If you really want to help your friendly neighborhood squirrels, then simply FEED US. We need large crunchy foods such as pecans, walnuts, peanuts and feed corn. Each gray squirrel needs to eat two pounds of food each week. We also need to drink water daily.



Bluegrass PRIDE announces Environmental Educator Workshop Grants Deadline March 1st!

The purpose of the Educator Workshop Grant Program is to provide educators within the seven Appalachian Regional Commission counties served by Bluegrass PRIDE (Clark, Estill, Garrard, Madison, Montgomery, Lincoln and Powell) with training that will help them integrate environmental concepts into their lesson plans. Basic information about the program is provided below.

Completed applications must be postmarked or submitted to the PRIDE office by March 1, 2010. Grant requests may be up to \$2,000. There is no minimum amount. This is a reimbursement program. Your organization must spend the money first, complete the required paperwork, and then be reimbursed by PRIDE.

Teachers from public and private K-12 school systems, educational institutions applying as a school, or non-formal educators from recognized organizations such as Conservation Districts and Cooperative Extensions. Incorporated non-profits and government agencies interested in the promotion of environmental education may also apply. Other groups interested in environmental education that are not eligible to apply are encouraged to form a partnership with an eligible applicant.

These grants will support teacher education workshops that focus on interdisciplinary, environmental education curricula. Examples include, but are not limited to, Project WET, Project WILD, Project Learning Tree, Wonders of Wetlands, and Project Food Land and People. Environmentally-sound workshops that emphasize local and regional environmental issues are encouraged.

A cost-share (match) by the grantee is required. Projects benefiting teachers from Clark, Garrard, Madison or Montgomery County will require a 50% match of the total cost of the project. Those benefiting teachers from Estill, Lincoln or Powell County will require a 20% match.

A match can be materials or services or a combination of both. In-kind matches may include items such as documented use of vehicles, staff time, or participant's time.

All work must be performed between May 3, 2010 and March 1, 2011.

For More Information, contact Gene Slusher, Bluegrass PRIDE's Grant Administrator, at gene@bgPRIDE.org or (866) 222-1648, or visit <http://bgPRIDE.org/grants.htm>.

Solar System Riddles

by Sonya Wood Mahler, KAE's Vice President and a resident of the woodlands of Trigg County, enjoys sky-gazing in the clear skies of winter - yet takes the chance to get away from the chill, leading kayak trips in Florida's warm winter waters.

Use the clues in these riddles to guess the names of objects in our solar system. Then do some research to learn and share two fun facts about each of them. Answers can be found on the Newsletter page of our Web site! <http://kaee.org>

1. I'm glad I'm home to boys and girls,
Even though I'm more blue than brown.
I have a cozy blanket called an atmosphere
That is always wrapped around.
2. I orbit fast, but slowly turn.
My day is longer than my year.
I look like a golf ball with all those
craters
And the Sun is very near.
3. I'm reddish-rust, with rocks and dust
And a 24-hour day.
I once had liquid water here
But only ice caps now, they say.
4. I'm full of gas with lots of stripes
And a really enormous girth.
I have over seventy moons and am
Ten times bigger than Earth.
5. I'm named for the god of the sea
But you'll find little water here.
My blue color is caused by methane gas
Found in my atmosphere.
6. I'm a medium-sized, middle-aged
Shining yellow dwarf star
I'm responsible for your weather
And when you get to drive a car.
7. I'm a hot and humid
greenhouse
With a temp of 800
degrees.
My volcanoes are all
named after women.
Sacajawea is one of
these.



Nation's Largest Study of Litter and Littering Behavior

National nonprofit Keep America Beautiful announced the results of the largest litter study ever conducted in the U.S., on December 3, 2009. The study identifies and dissects the causes, effects and costs of litter in America, and is the first major national survey of litter in the U.S. in 40 years. "Our research clearly shows that while major progress has been made in reducing litter, more remains to be done," said Matthew M. McKenna, president and CEO of Keep America Beautiful, Inc. "By combining strong, targeted public **education** and outreach with a better infrastructure of trash, ash and recycling receptacles, communities can reduce litter and its costly impact."

KEY FINDINGS:

- In the past 40 years, since 1968, the amount of litter in America has decreased by 61% nationwide, a change attributed to aggressive, long-term public education and cleanup programs.
- Litter conservatively costs our nation \$11.5 billion per year.
- At least 51.2 billion pieces of litter are left on roadways in the U.S.; an average of 6,729 pieces of litter per mile.
- Cigarette butts comprise 38% of all items littered.
- Most littering observed in the study -- 81%-- was committed "with intent" by the individual.
- Fifteen percent of all littering can be attributed to context. The strongest contextual contributor to littering is the prevalence of existing litter.
- Older individuals (30 and over) littered less than younger individuals, but gender was surprisingly not related to litter rates.

Recommendations of the survey included **education** and cleanup work, more receptacles, more recycling infrastructure and increased funding. Full copies of the Executive Summary and research are available online at <http://bit.ly/dntcVb>.

Litter contributes to nonpoint (runoff) source pollution, Kentucky's – and the nation's largest source of water pollution.

- For more information on nonpoint source water pollution, visit <http://bit.ly/cnaN9E>.
- For more information on litter issues specific to Kentucky, visit <http://bit.ly/bONVyY>.

Earth Month (April) activities from Earth Day Network

<http://earthday.net/earthday2010>

Global Days of Service – April 17-18, 2010

The Global Days of Service will feature Volunteer Actions by tens of thousands of global participants, from April 17 – 18, 2010. These projects in parks, beaches, schools and forests will focus on climate change solutions like tree planting, energy efficiency retrofits, water protection, urban gardens and forest restoration. Produced with the help of Earth Day Network, along with local community organizations and governments, the activities will address current challenges and will help cities and organizations streamline their energy needs, and 'green up' their communities. Suitable for individuals of all ages, including children and families, these activities encourage active lifestyles and healthful living, while also connecting volunteers with the green solutions.

A Global Day of Action: April 22, 2010 – The Green Generation™ Takes Action

We will be convening some 500 communities around the world in a Global Day of Conversation on Climate Action. These town-hall style meetings in the U.S. and international cities will involve local citizens, mayors, and community leaders in discussions on climate change.

A Global Day of Celebration – April 25, 2010

Earth Day Network will organize 40 major city events around the globe. Can't wait to sign up? Look no further: The Green Generation™ manifesto is online at <http://bit.ly/bfM4az>. Print it out, check off your actions, mail it in to Earth Day Network and count yourself a member of global movement toward a sustainable planet. Then log back onto the site and check for updates!



Awards to Recognize Young People for Environmental Activism

The Earth Island Institute's Brower Youth Awards annually recognize six young people in North America for their outstanding activism and achievements in the fields of environmental and environmental justice advocacy. The winners of the award receive a \$3,000 cash prize, a trip to California for the award ceremony and wilderness camping trip, and ongoing access to resources and opportunities to further their work at the Earth Island Institute.

"Outstanding leadership" means that youth played a major leadership role in creating, organizing, and implementing an environmental project or campaign. The program measures impact by how a young person's efforts benefited the environment and community in terms of measurable results (e.g., acres of wildlife habitat protected or restored, number of people engaged in social issues because of the project, numbers of children no longer exposed to toxins, etc.), as well as movement-building and raising awareness.

Young activist leaders between the ages of 13 and 22 living in North America are eligible to apply. Deadline is May 15, 2010.

Visit <http://broweryouthawards.org>, the Brower Youth Awards Web site, for complete program guidelines.



facebook.com/group.php?gid=25600150629

Membership Application

Membership Level

Name _____
Affiliation _____
Work Address _____
City _____ State ____ Zip _____
County (work location) _____
Work Phone (day) _____ Fax _____
Home Address _____
City _____ State ____ Zip _____
Home Phone _____
If applicable, with what grade or age group do you work? _____

Professional	\$30	_____
Retired	\$20	_____
Student	\$15	_____
Life	\$250	_____
Family (2 adults, same household)	\$50	_____
Institutional (agencies, schools, non-profit organizations)	\$100	_____
Corporate (business and industry)	\$300	_____
Special Gift for Legacy Fund	\$	_____
TOTAL enclosed	\$	_____

EMAIL ADDRESS _____

- I wish to receive the Newsletter via US mail.**
We encourage members to receive the Newsletter electronically.

Make checks payable to KAEF and mail to:
KAEF
PO Box 17494
Louisville, KY 40217-0494

*Membership runs from Oct 1 - Sept 30
Has your membership expired?
If so, please support KAEF and renew today!*

*For an explanation of membership
categories, visit our Web site at
www.KAEF.org*

Kentucky Association for Environmental Education
PO Box 17494
Louisville, KY 40217-0494

*Since 1976, the Kentucky Association for Environmental Education
has worked to build a sustainable environment through education.*