E-RICA is a Eureka Moment for Urban Science Teacher: Incorporating Environmental Ed into a Non-Fiction Reading Class

By Trista Smith

With state guidelines and strict standards to follow in schools systems, do you ever wish there was a chance to teach something of value that you feel your students should be aware of? Environmental education is a valuable field that gives teachers the chance to increase students’ awareness and sense of responsibility. Sometimes in my urban school environment it is difficult to expose students to nature. I like to describe my school as not TOO urban, but urban enough not to have anything but parking lots to study. A perfect example occurred this past autumn. My students and I did an inquiry project in an open soccer field that only has some plant life around the outside of the “track.” Sadly, on our second day over 1/2 of what the students wanted to observe and take data on was mowed down. I believe environmental education to be crucial for students, but without an accessible natural space, I decided to incorporate EE into our Reading In The Content Area (RICA) class.

In creating the Environmental RICA (E-RICA) curriculum I wanted to help students understand environmental situations and their responsibility to our environment. I wondered if creating an E-RICA class would give students a greater understanding and feeling of responsibility towards the environment and if the class would encourage more students to join the school’s Environmental Club.

Before the coursework began, over half of the students stated they knew only “a little bit” about environmental issues, but believed understanding the environment was important. The issues that students initially believed to be the most important included recycling, habitat loss, and global warming. Some topics that were discussed during the daily, 30-minute E-reading class included: Environmental Impact, Pollution, Ecosystems, Endangered Species, Climate Change and Energy, and Conserving Natural Resources. I am happy to say that after the E-RICA class the students felt a wider array of issues were important! Not only were the previous three still important, but they also believed Alternative Energy was very important.

The majority of students enjoyed E-RICA and was interested in learning more about or joining the Environmental Club. Students were also asked at the end of their course to create an E-RICA (9-week curriculum) class for their peers during the second quarter. This task gave students the responsibility of educating their peers on what they believe to be important environmental issues. Students thought of topics discussed throughout the class as well as other topics they wanted to learn more about. Despite being in an urban environment, E-RICA was successful in expanding students’ knowledge of the environment and connections they have with all living and non-living things.

Trista Smith is a 7th grade science teacher at Edwards Middle School in Brunswick, Ohio. She can be contacted at TSmith@bcsoh.org.
Summer Sprouts: Urban Gardens for Children
By Madeline Dorger

When staff from the Civic Garden Center of Greater Cincinnati stop by the Pendleton Children’s garden to spread woodchips or flip compost, someone from the neighborhood usually stops by. If it’s during the school day, this someone is usually under five – like little Elijah, who turns over rocks to look for weeds and lizards. While we rake mulch, Elijah picks some Mexican sunflowers and offers to help move the wheel barrel. He talks about one of the kids on his street wanting to pick some greens.

“He can pick greens,” we say. “It’s his garden.”
“It’s his garden?” puzzles Elijah.
“It’s your garden, too. It’s all of your garden.” Elijah beams.

Elijah is part of the Summer Sprouts program. From June to August about twenty kids from this street come to the garden for two hours a week to plant, eat, work and play in their garden. The program is free; it is – after all - the kids’ own community garden. And kids can walk there by themselves while their parents watch from the apartment buildings’ windows across the street.

The Summer Sprouts gardens are planned by kids, maintained by kids, and harvested by kids. We grow broccoli because that’s what one child’s grandma likes best. We have a rock mound because we like to watch the lizards dart in and out on sunny days. The kids dig with shovels, pull weeds, look for worms, and eat the food they grow. Typically the kids are fascinated with the bugs they find in the garden, the types and colors of the plants and watching their vegetables grow.

This past summer there were six Summer Sprouts gardens in Over the Rhine, Northside, Walnut Hills, and at Riverview East Academy. Some kids have been coming for six years, and some are brand new. As a new Youth Ed Coordinator, Madeline admits “the kids are teaching me more about their gardens that they’ve maintained for years than I would be able to simply observe.”

By growing the garden and exploring these green areas, the children develop a connection with nature that is often difficult to establish in an urban setting. The Sprouts program provides young people with a safe, accessible, outdoor area in their neighborhood where they can develop a continuous and meaningful relationship with the natural world. In addition to giving the children an opportunity to develop an emotional connection to the land, they are provided with a safe and supportive environment where the children can feel respected and valued.

Madeline Dorger is the Youth Education Coordinator at the Civic Garden Center of Greater Cincinnati.

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Life on a Sandy Delta, 2011
June 12 - 18, 2011

Sponsored by Ashland University, Crane Hollow, Inc., Camp Oty’Okwa, The Knoops

Enjoy life on a “Sandy Delta” in the beautiful Hocking Hills!! Learning, new friends, and fun!! An overnight retreat for environmental educators, naturalists, and teachers! Keynote Presenter and Performer Chris Rowlands will provide a final evening of song, laughter and learning!

The delicate balance of people, natural resource use, and technological advances is at the heart of many local, national, and global news stories. Participants will explore hands-on best practice strategies for introducing people to the natural world and these issues. Using their professional expertise and experience, top naturalists and educators from around the state will facilitate sessions using the camp and local resources. Sessions will provide opportunities to gain an understanding of topics related to state standards by immersing the participants in a natural setting and a stimulating learning environment.

Credit: Participants can earn either 3 semester hours of graduate credit or up to 50+ contact hours.

Arrival and Registration: 4:00pm Sunday, June 12     Departure: 1:00pm Saturday, June 18

Cost: Participation fee (50 contact hours, lodging, meals, sessions, materials): $375.00
Graduate credit additional fee: (3 semester hours): $525.00  (2 semester hours): $350.00

For registration and information: Cathy Knoop: 740-385-6638 or cpknoop@hocking.net
This year’s conference will be held on the shores of Lake Erie in the Lodge at Maumee Bay State Park. This beautiful park along this most historic of great lakes provides an excellent professional conference setting, great food, and a comfortable atmosphere that will encourage conference participants to make the most of the educational experiences offered.

The theme of this year’s conference is “Charting a Course for the Future in Environmental Education”. The goal of the conference committee is to showcase the past, present and future of Environmental Education in Ohio while focusing on Lake Erie, water issues, energy, educational development, and area history. The conference begins on Thursday, April 14th with environmental forums. On Friday the 15th, conference participants can attend day trips and/or educational and informational workshops. Saturday, April 16th and Sunday the 17th are both filled with concurrent sessions; educational sessions that will appeal to a variety of educators and conference participants.

The conference committee has been busily planning this yearly event and here are just a few of the concurrent sessions, educational day trips, and activities already in the works:

Concurrent Sessions include:
- Art for Water’s Sake, The Rain Barrel Project
- Transforming the School Grounds into an Outdoor Classroom
- Educational opportunities on Lake Erie for Teachers and Students
- Wetland Wanders: Getting Children INTO Nature
- Globe: It’s Elementary!
- EXCITE ODYSSEYS: PBL Modules for Students in the Middle!

Day trips include:
- Magee Marsh, Black Swamp Bird Observatory and Ottawa Wildlife Refuge
- Gibraltar Island, Stone Lab, Heineman Winery and Crystal Cave
- Ken Green’s Farm (green installations) and Agriculture Incubator
- University of Findlay Hazmat Program
- Wind Energy and Solar Energy

For more information, please visit www.eeco-online.org
Insert and funding for this newsletter is generously provided by
Ohio Environmental Education Fund (OEEF)

For more information on these grants, Please contact:
Ohio EPA Office of Environmental Education
Phone: 614/644-2873
Website: www.epa.ohio.gov/oee
Email: oeef@epa.state.oh.us

For Upcoming Grant Writing workshops please visit,
www.epa.state.oh.us/oeef/

Recent Grants for Adult Education

City of Geneva Wastewater Treatment Plant, “Recycle Fluorescent Bulbs”
$15,832, Ashtabula County, Contact: Beverly Hoffman, wwlab@genevaohio.com, 440-466-4228.
The project seeks to increase public awareness of the dangers of mercury in the environment and how we can make a
difference by recycling. It would fund a program for the recycling of mercury containing lamps at the Recycle Center.

Ohio Department of Natural Resources, Division of Geological Survey, “Ohio’s Geology in Core and
Outcrop- A Field Guide for Citizens and Environmental and Geotechnical Investigators”
$49,982, Statewide
Contact: Gregory Schumacher, greg.schumacher@dnr.state.oh.us, 740-548-7348, ext. 25.
This project will develop and publish a fully illustrated field guide, featuring maps, photos, and line drawings as well as concise descriptions for each of the 85 major geologic units mapped in Ohio. Fact sheets for each geologic unit will provide a wealth of information about diagnostic geologic and environmental features, economic uses, general engineering characteristics, potential environmental hazards, and hydrogeologic properties for these units.

Youngstown Neighborhood Development Corporation, “Lots of Green Market Gardener Training”
$38,022, Mahoning County
Contact: Edward McColly, emccolly@yndc.org, 330-480-0423
This project will train individuals in the environmental and business aspects of sustainable market gardening. It will also match participants with local farmers to provide them with hands-on training. A small market garden incubator site will be established to give participants critical real-world experience. The program will contribute to the food security of the neighborhood, spread knowledge of sustainable agriculture techniques, convey to participants the connection between business and the environment, and encourage residents to grow food on vacant land.

Clean Fuels Ohio, “Ohio Electric Drive Initiative”
$24,419.00, Statewide
Contact: Jill Herbst, jill@cleanfuelsohio.org, 614-884-7336.
The Ohio Electric Drive Initiative is designed to educate Ohio government and private fleet managers about how they can reduce emissions and fleet operational costs through electric vehicles. Educational activities revolve around a series of regional seminars that will cover basics of electric vehicles, charging infrastructure, vehicle safety, grant opportunities, and a ride and drive/vehicle showcase. Additional resources will be available online—including seminar webcasts, handouts, other presentations and a fleet evaluation toolkit.

Entrepreneurs for Sustainability, “Zero Waste Catalyst”
$25,802, Cuyahoga, Geauga, Lake, Lorain, Medina and Summit Counties
Contact: Holly Harlan, holly@e4s.org, 216-451-7755.
This project will advance the work of ZeroWasteNEO, an action network led by a collaboration of business, government and non-profit leaders. This project will market their events to a broader community, create a new zero waste workshop and waste audit program based on the curriculum and learning processes of the applicant’s Sustainability Implementation Group Program, and write and post on their website ten case stories that demonstrate how companies are advancing toward their zero waste goals.
Recent Grants for PreSchool to University Audiences

City of Columbus, “Greenspot: Sustainable Lifestyles”
$40,304, Franklin County
Contact: Leslie Strader, lstader@columbus.gov, 614-645-7673.
This project seeks to improve student achievement by demonstrating real-life application of content standards delivered in grade one. Sustainable lifestyle choices will be integrated into the everyday classroom experience through development of a locally specific leisure book, compiled teacher resources, classroom activity and the existing GreenSpot program.

Antioch College Corporation, Glen Helen Ecology Institute, “Glen Helen Residential Environmental Education Program”
$49,918, Greene County
Contact: Nikos Boutis, nboutis@glenhelen.org, 937-769-1902, ext. 105.
The Glen Helen Outdoor Education Center is the oldest residential environmental learning facility in the Midwest. This project seeks to transform the academic internships of the center into professional practice, to enable the center to continue to provide environmental education instruction to schoolchildren, and professional preparation for outdoor and environmental educators.

Mohican School in the Out-of-Doors, “Natural Cache”
$23,086, Richland County
Contact: Ray Coleman, ray Coleman@mohicanoutdoorschool.org, 419-938-6671.
This project will promote environmental education and stewardship by teaching students how to use GPS units to engage in geo-caching. Cache sites will focus on activities designed to teach concepts of conservation and environmental education. Mobile learning applications using Go Know software, delivered via hand held devices, will be piloted to record data and assess concept mastery.

Civic Garden Center of Greater Cincinnati, “Green Learning Station: Inquiry Into Sustainability, a 7-12 Field Trip”
$50,000, Butler, Clermont, Hamilton, and Warren Counties
Contact: Ryan Mooney-Bullock, rbullock@civicgardencenter.org, 513-221-0981.
The Green Learning Station is a new environmental education facility focused on sustainable living in the city. The funds will be used for field trip resources, bus travel for students, and start up of student action projects that are initiated as a result of participating in the Green Learning Station curriculum.

Ohio Wildlife Center, “WildAcademy- Teen Career Development SOARS at Ohio Wildlife Center”
$47,902, Delaware, Franklin, Madison, and Union Counties
Contact: Kelly DuFour, kdufour@ohiowildlifecenter.org; 614-734-9453.
175 Central Ohio Students will participate in the first sessions of the WildAcademy, a new career development program exposing students to the fields of wildlife husbandry and environmental education. It will expand on well-received hands-on outdoor experiences to encompass career planning for students ages 13-17 interested in wildlife, animal husbandry and habitat conservation careers. Students will be trained in specific interpretive standards practiced in the field and will be exposed to public speaking, animal handling, and environmental education techniques.

Stratford Ecological Center, “The Sunship Earth Program: Reaching 5th Grade Ohio Academic Content Standards”
$34,733, Delaware and Franklin Counties
Contact: Christa Hein, treebeing@aol.com, 740-363-2548.
This project would initiate The Institute for Earth Education’s Sunship Earth program, becoming the first Sunship Earth Study Station in Ohio. This internationally-recognized program provides week-long sessions of experiential, standards-based lessons and activities, providing students a complete curriculum focused on how the Earth functions, while providing teachers with a foundation on which to build their annual 5th grade science curriculum. The applicant is currently working on phase one of this program; this will fund phases two and three: adapting the week-long program into one-day sessions for field trip limited schools and completing the construction of the Sunship Earth Study Station.
Think about your favorite childhood memories. Do any of them involve being outside? Mine do! Despite growing up in the extremely urban greater New York City area, I remember crabbing in the Barnegat Bay, following deer tracks through the snow in the woods near my house, and walking around the reservoir when the leaves were changing colors in the fall. I could go on and on, but sadly many children today if asked what they spend their time doing respond with indoor-based activities. Recent research has shown that today’s indoor, sedentary lifestyles are harming children. Meanwhile, unstructured play in nature has been shown to make kids happier, healthier and smarter. In response to these findings and the growing concern of nature deficit disorder, grassroots organizations have sprung up around the world, across the country and in Ohio. In fact, Ohio is one of the nation’s leaders in the Leave No Child Inside Movement. Five regional Leave No Child Inside (LNCI) groups as well as community members committed to reconnecting children and nature formed the Ohio Leave No Child Inside Collaboratives in 2010. Through education and community engagement, the Ohio Leave No Child Inside Collaboratives promote children’s outdoor play, learning and lifelong connection with nature. With a vision for every child and family in every Ohio community to experience the wonder of the natural world every day, the Collaboratives organized the first statewide LNCI event. Advocates for children’s nature play stood together on September 24, 2010, to unveil The Report on Ohio’s Initiative to Reconnect Children with Nature and celebrate the accomplishments of the Leave No Child Inside movement in Ohio, including a Children’s Outdoor Bill of Rights. Governor Strickland, as well as mayors and county commissioners from around the state signed a proclamation promoting the new Children’s Outdoor Bill of Rights for Ohio. The proclamation declares that Ohio’s children have the right to play outside each day in nature, taking advantage of our state’s rich natural resources. As part of an energetic awareness campaign, LNCI resource tool kits are being made available around the state and for various sectors including transportation, health, community development, and of course education. Keep your eyes peeled for the “Did Your Child PLAY Outside Today?” poster displayed throughout the state. To learn more or find a collaborative in your region, visit OhioLNCI.org.

Denise Natoli Brooks is the Director of Conservation Education at the Wilds. She is also actively recruiting LNCI supporters in southeast Ohio and can be reached at dbrooks@thewilds.org.

**Winter Snow’s Schoolyard Enhanced Learning Conference**

**An Examination of Environmental Education in the 21st Century**

**February 4 - 6 2011**

**Camp Nuhop, 1077 Hanover Twp. Rd. 2916, Perrysville, OH  44864**

The Environmental Education Council of Ohio’s (EECO) 28th Annual Winter Conference will be geared to how environmental literacy and environmental education methodology fit within the context of the 21st Century. Sessions will also examine how the schoolyard and site-specific locations can provide the venue to enhance learning opportunities for students and the greater community.

Many sessions will be aligned to the state of Ohio Academic Content Standards. CEU and one semester hour of graduate credit $278.00 will be available through Ashland University. For details contact Dr. Herb Broda at hbroda@ashland.edu.

The fee for the entire weekend conference is $145. For members of EECO or CVNPA the fee is $135. The fee includes lodging at Camp Nuhop as well as all meals and materials.

Choose from 3 strands:

One: Schoolyard and Site Based Enhanced Learning

Two: Arts and Environmental Literacy

Three: 21st Century Skills and The Environment

Full conference information and registration is available at www.eeco-online.org.
Collaboration Increases Conservation Ethic among Urban Students
By Natalie Cook

Recently the Toledo Zoological Society and Toledo Public School (TPS) investigated techniques to increase student learning through unique experiences in an urban environment. With a focus on students’ knowledge, concern and feelings about animals, the project intended to answer which teaching method influences student attitudes and knowledge about animals and their conservation plights more, a discussion/lecture in a classroom or a visit to the zoo. The study brought up many more interesting questions including: What impact do inquiry-based visits to a zoo have upon the attitudes and knowledge regarding animals of girls as compared to boys?; and How much of an impact does the inquiry based/ zoo setting versus the traditional class setting have on the different age groups attitude and knowledge of animals?

The partnering school, Natural Science Technology Center (NSTC) is a career and technical school that offers students in an urban school district courses in floriculture, animal management and natural resources classes in addition to those core classes they take at their home schools.

In the span of a week, forty NSTC high school students learned about four different animals in both of two different teaching formats – a classroom lesson in lecture format and a zoo lesson at an animal exhibit that included a participatory animal behavior activity and a biofact.

Finally, the students were divided into the four groups representing each of the topic animals. The scenario they received was that they had to present to an International Union for Conservation of Nature (IUCN) panel on why their animal should not be extinct. Due to a multitude of reasons, the IUCN only had the funding to save one of the four animal species. Students were allowed to research and make flyers, then each group gave a presentation to the panel and one animal species was saved.

Through the use of pre- and post-tests, results support a positive correlation between animal knowledge and concern for conservation status, as well as animal knowledge and feelings about an animal. As student knowledge about the animal and its environmental needs increases, so do the concerns for conservation action and the feelings about the animal.

With five urban zoos in Ohio, this collaborative project can easily be duplicated by other zoos/nature center educators and classroom teachers. For more information about the project, contact Natalie Cook at gnattygirl@yahoo.com.

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2011 Wildlife Diversity Conference: March 9, 2011
Aladdin Shrine Complex, Columbus, Ohio

Wildlife Diversity: Connecting Wildlife, Habitat and People

We will feature presentations on how to interconnect wildlife, habitat and people to conserve our native wildlife. Our keynote speaker will cover the dynamics of wildlife diversity enthusiasts and enlighten us on our “customers”. Topics for the day will include:

- Sandhill cranes
- Distribution of Softshell turtles
- Fostering Conservation Partnerships
- Fishing access for steelhead trout and riparian corridor protection
- Conservation genetics and the Eastern massasaugas
- Evaluating stress in hellbenders
- Birding for everyone

The newest Ohio Wildlife Legacy Stamp will be available at the Conference for $15. The stamp features a male Eastern amberwing dragonfly with proceeds supporting wildlife diversity conservation, research and education in Ohio. Put your “stamp” on wildlife conservation!

Please join us on March 9th and bring a friend. The conference will provide opportunities to ask questions, share ideas and network with others interested in natural resource conservation and management.

For information after January 10, please call 1.800.WILDLIFE, or visit www.ohiodnr.com/wildlife.
The EECO Newsletter is published for members of the Environmental Education Council of Ohio, a non-profit organization.

Submit articles or photos to whitelr@butlercountyoiohio.org

Deadlines: Aug 1, Nov 1, Feb 1, and May 1

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For information about EECO’s programs and services, please contact
Brenda Metcalf, Executive Director.
Visit EECO online at www.eeco-online.org