



2012 Annual Conference



Greening STEM: Using the Environment and Sustainability as Inspiration for 21st Century Learning

Friday, March 23, 2012

Central Connecticut State University

New Britain, CT

Keynote Speaker:



Dr. Nicholas Bellantoni
State Archaeologist

- Workshops
 - Interact Tables
 - Exhibits
 - Silent Auction
 - Awards Lunch
 - Networking
- Opportunities for all

SCHEDULE AT A GLANCE

8:00 - 8:30 am	Exhibit and Interact Table Set Up
8:30 – 9:15 am	Registration/Refreshments/Interact Session
9:30 - 10:45 am	Workshop Session A
10:55 - 12:10am	Workshop Session B
9:30 – 12:10	Workshop Session AB (includes a break)
12:15- 2:15 pm	Lunch /Awards/Silent Auction/Keynote Speaker
2:30 – 3:45 pm	Workshop Session C

Conference Sponsors



General Information

Our Ecological Footprint

In order to reduce our environmental impact, we ask that you please bring a name tag, folder, paper, writing utensils, and coffee mug. With your help, we can reduce the “ecological footprint” of this conference.

Exhibiting Information

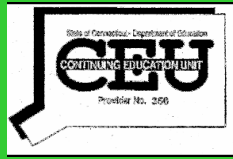
Exhibits will be available in the morning to view and visit for information and interactive activities in just the morning workshop timeframe. Member Organizations are invited to provide an exhibit. Organizations will be contacted to verify and secure an exhibition table. Static displays will be up for viewing during lunch in Constitution Room.

Financial Assistance

A limited number of fee reductions are available for those in financial need. If you would be unable to attend the conference without financial assistance, please check the box on the registration form. If requesting financial assistance, you will be asked to volunteer some of your time during the conference as a moderating a workshop, helping with the exhibit hall set up or take down, or in some other capacity. Conference coordinators will contact you to schedule your conference duty. Please do not hesitate to request assistance to attend.

Silent Auction

Please bring a quality environmental education-oriented item for the silent auction. Funds raised will support future conferences and financial assistance programs.



Continuing Education Units

0.6 CEUs are available for those educators needing them. Please be sure to sign in at the start of the day and sign out at the end of the day. An evaluation with your Identification number is required from you at the close of day in order to provide you with the CEUs.

Directions to Central Connecticut State University Campus

Conference will be held in Alumni Hall in the Student Center.

From the North (Massachusetts)

Take 91 South to 84 West to Exit 39A, to Rte. 9 South.

Get off Exit 29 and take a right at the end of the exit ramp onto Ella T. Grasso Boulevard.

At the third traffic light, take a left into the Student Center Parking Lot and feel free to park in the garage in the event of inclement weather.

From the Southwest (Stamford/New Haven)

Take 95 North to 91 North to Exit 22 North, to Rte. 9 North.

Follow Rte. 9 North and take Exit 29, Rte. 175.

At the traffic light at the end of the exit ramp, go straight and follow Fenn Road to the second traffic light, and take a left turn onto Ella T. Grasso Boulevard.

At the fourth traffic light, take a left into the Student Center Parking Lot and feel free to park in the garage in the event of inclement weather.

From the Southeast (Groton/New London)

Take 95 South to Rte. 9 North to Exit 29, Rte. 175.

At the traffic light at the end of the exit ramp, go straight and follow Fenn Road to the second traffic light, and take a left turn onto Ella T. Grasso Boulevard.

At the fourth traffic light, take a left into the Student Center Parking Lot and feel free to park in the garage in the event of inclement weather.

From the East (Hartford)

Take 84 West to Exit 39A, to Rte. 9 South.

Get off Exit 29 and take a right at the end of the exit ramp onto Ella T. Grasso Boulevard.

At the third traffic light, take a left into the Student Center Parking Lot and feel free to park in the garage in cases of inclement weather.

From the West (Danbury/Waterbury)

Take 84 East to Exit 39A, to Rte. 9 South.

Get off Exit 29 and take a right at the end of the exit ramp onto Ella T. Grasso Boulevard.

At the third traffic light, take a left into the Student Center Parking Lot and feel free to park in the garage in the event of inclement weather.

Keynote Speaker
Dr. Nicholas Bellantoni



Dr. Nicholas Bellantoni, the State Archaeologist, is an adjunct faculty member in the Anthropology Department at University of Connecticut, teaching introductory courses, independent studies, and participating on graduate committees. He serves on a variety of advisory boards for museums and historical societies throughout Connecticut. He is known for a variety of programs featuring the science and excitement of Archeology as well as expanding our knowledge of life in New England from cultural and natural history finds.

Learning from our past is important to building a sustainable tomorrow. Dr. Bellantoni will provide a look at human activity's impacts in the past and how we are shaping our future today. The use of resources effected populations of the past and changed the way people lived throughout Connecticut from the earliest Tribes to current citizens. What will the future say about us and how can we take lessons from the past that advance us to the future? Always a great speaker and wealth of information, we welcome Dr. Bellantoni to this year's conference.

Exhibit Hall and Interact Session 8:30 am – 9:15 am

Open to all. Refreshments provided as well as hands-on activities or demonstrations.

Workshop Session A 9:30 am – 10:45 am

A1. Let's Take It Outside!

Melissa Wlodarczyk Hickey, Shannon Insero, Leslie Pickman, Joellen Woodworth, Thomas Currier; Suffield Public Schools

Spaulding Elementary School, Suffield Public Works, Suffield Foundation for Excellent Schools, and an Eagle Scout joined together to create an interactive, on-site nature trail. In this first year of development, three second grade teachers are collaboratively engaged in developing rigorous, inquiry-based instruction in which students apply 21st century and STEM skills in context. Through modeling and independent opportunities, students are developing questions, applying and using their scientific knowledge, communicating using technology, and utilizing science notebooks.

Recommended for elementary school educators.

A2. Mathematical Connections in the Natural World

Diane Morton, The School for Young Children

The outdoor environment offers unlimited opportunities for young children to explore, observe, and make predictions. Using the natural environment that is available to you to, encourage children to observe insects and other creatures and to gather collections of natural items. Learn

how teachers can guide children in using mathematics as a tool for understanding the natural world. Items can be sorted and categorized. Observations can be mathematically recorded and analyzed. *Recommended for PK/K educators.*

A3. Connecticut Green Ribbon Schools Program

Jeff Greig, CT State Department of Education; Laurel Kohl, Institute for Sustainable Energy at ECSU; Lori Paradis Brant, Connecticut Forest and Park Association

The U.S. Department of Education has started the Green Ribbon Schools program to recognize schools that save energy, reduce costs, feature environmentally sustainable learning spaces, protect health, foster wellness, and offer environmental education to boost academic achievement and community engagement. Learn about the program and how we are connecting this effort to existing programs in our state, including the Connecticut Environmental Literacy Plan, to foster more sustainable schools. Learn how you can get your school started on a greener path with Project Learning Tree's Green Schools and other programs. *Recommended for elementary, middle and high school educators.*

Workshop Session B 10:55 am – 12:10 pm

B1. Schoolyard Garden as an Outdoor Classroom

Elizabeth Buttner, CT State Department of Education

With a little creativity, a lot of enthusiasm, and an eye on curriculum standards, a garden can be so much more than a place of beauty and refuge. This workshop will provide ideas and a process used by one teacher to engage her students in learning science, mathematics, language arts, teamwork, planning and responsibility...all while having great fun establishing their schoolyard butterfly garden. *Recommended for Elementary, Middle and High School Educators*

B2. Farm Fun for 4's and 5's

Lisa Monachelli and Lisa Combs, Stamford Museum and Nature Center

Introduce the importance of farms to your littlest locavores! Through hands-on activities, literature connections, and cooking experiences, we'll introduce ways to incorporate the animals and products of Connecticut farms to your earliest learners. Participants will gain ideas for science tables, age-appropriate art projects, sensory experiences and gatherings based upon farm-based themes such as gardening, wool culture, dairy and more! *Recommended for PK/K educators.*

B3. Animal Tracking: A Multidisciplinary Way to Get Out, Explore, Learn and Connect

Keith Marshall, New Canaan Nature Center; Travis Brady, Greenburg Nature Center

Animal tracking provides a direct connection to the outdoors while allowing a multidisciplinary approach to environmental education enhancing a student's critical thinking and higher learning skills. Come learn the science and art of this ancient technology called animal tracking and explore ideas and techniques for incorporating it into STEM education and much more. *Recommended for informal educators and general/mixed audiences.*

Workshop Session AB 9:30 am – 12:10 pm

AB1. CO2 Emissions and Tropical Rainforests

Herster Barres, Reforest the Tropics, Inc.

Reforest the Tropics (RTT) aims to offset US-generated carbon dioxide (CO2) emissions by planting new tropical forests in Costa Rica. Learn how RTT works with schools by teaching about our CO2 emissions and how to calculate and track our home and school emissions. Establish a school forest that captures and stores CO2 for your school account. RTT forests are designed to meet the needs of most stakeholders, including emitters, farmers, wildlife, the forest biome and the world for reducing the atmospheric content of CO2 in sustainable forests. *Recommended for all audiences.*

AB2. Sustainability Ethics: Foundation for Everything

James Malley, Ph D., Central Connecticut State University

STEM will be necessary but not sufficient in reversing humanity's patterns of ecological destruction. A solid ethical foundation and a mindful citizenry will be essential to bringing forth a sustainable global society. The presenter will review the history of sustainability ethics and key principles for ecological ethical decision-making. Participants will examine sustainability-related ethical dilemmas. The session will begin with a guided meditation and end with reading key sections of *The Earth Charter*.

AB3. Changes in Latitudes, Altitudes & Solar Photovoltaics

Bob Borello, Energy Efficiency Fund/eesmarts and Clean Energy Finance & Investment Authority—Powered by PIMMS-Wesleyan University

It's those changes in latitudes, changes in altitudes that make solar photovoltaic and solar thermal technologies such a powerful STEM learning tool. An eesmarts/Energy Efficiency Fund lesson will show you how to build a gnomon to measure solar altitudes and learn how to properly angle Solar PVs (*hint*: latitude). Solar technologies, including solar houses and solar cookers, will be explored through hands-on activities through the Clean Energy Finance & Investment Authority's LCEI classroom curriculum. *Recommended for high school, college and informal educators.*

Workshop Session C 2:30 pm – 3:45 pm

C1. Teaching Sustainability Through Magic

CJ May, Better World Magic

Learn how stage magic is being used to bring the message of sustainability to children and adults. CJ May has been using magic to teach recycling and other environmental issues at public schools as well as at Yale University. He will share his mainstay "Recycling is Magic" as well as a work in

progress “The Magic of Water.” Feedback and discussion will round out the session. *Recommended for elementary, middle school, and informal educators.*

C2. Connecting Field Trips to Technology

Abby Peklo and Alberto Mimo, Education Connection

Through grant funding, Education Connection infuses place-based environmental education enrichment programs for high school students with the use of technology. Students learn how technology is essential to the study of environmental science. Examples of technology include GIS, water quality testing, biological identification and methods of studying species diversity and abundance. By participating in our programs, classroom teachers increase their knowledge of environmental science and ecology and learn how to integrate STEM into their science classroom curriculum. *Recommended for high school educators.*

C3. Start a “Green” Club at Your School

Green Rivers 8th grade ambassadors and Mentor, Christie Hazen, Two Rivers Magnet Middle School; Lori Paradis Brant, CT Forest and Park Association

Project Learning Tree's GreenSchools! program connects PLT classroom activities and environmental service-learning projects. Join us to learn more about the program and get free access to PLT GreenSchools! resources and materials online. Connect with the state program, PLT CT, coordinated by the D.E.E.P. and Connecticut Forest & Park Association.

Enjoy a presentation from a PLT CT GreenSchool – 2Rivers Magnet Middle School. Hear the 8th grade “ambassadors” share how their Green Rivers club began and how it has grown. The students will share different types of projects and leadership training they received. See first-hand how students can make a difference and inspire others (students and adults) to get a school club going to “go green”! *Recommended for middle and high school educators.*

C4. Go-Botany!

Jim Sirsch, Yale Peabody Museum of Natural History

Go-Botany is a new, user-friendly, interactive, online guide to the New England flora developed for middle schoolers through adults. Enjoy test-driving this NSF-funded project from the New England Wild Flower Society and partners. Learn how to use it in informal science education settings. Bring a laptop or tablet and we'll provide a plant for you to identify using this interactive, multi-access key. You'll also learn how to create customized and user-friendly, field-accessible guides to plants. *Recommended for middle and high school, college and informal educators.*

C5. Lifestyles as a Challenge to Sustainability

Wendy Holtz and Laura Worthington, Institute for Sustainable Energy

This presentation will explore the challenges that lifestyles present to sustainability, look at how lifestyles are measured, and offer some alternatives to live a more sustainable lifestyle. Participants will calculate their ecological footprint as a result of attending this workshop. Materials used link back to the CTEnergyEducation.com website supported by staff of the Institute for Sustainable Energy. *Recommended for middle or high school, college and informal educators.*

C6. Terra Forma

Joy Wulke, Projects2K

Learn about geology, rock types and formations and their varietal make up through the arts. Rock types will be made visible and we will talk about the Geological make up of each, talk about the colors and textures of the geological make-up. We will create an interpretive collage representing each of the three rock types, igneous, sedimentary, and metamorphic. Learning how the action of each rock type creates layers of the earth. We will then assemble your 3 collages onto a larger board combining to make banners. The project invites conversation about the dynamism, the recipe for rock types and visual beauty of geology. *Recommended for elementary school and informal educators and general/mixed audiences.*

Registration Information

Complete the registration form online using the following link:

<https://coeeaconference.wufoo.com/forms/r7x3q1>

You may use the Pay Pal option to pay with a credit card.

We will also accept mailed registrations and a form is provided below. Please include your check, made payable to **COEEA Fund**, with the registration form prior to the conference date using the address provided below.

If submitting a purchase order, please attach a copy of the PO and include the Employer's EIN #.

COEEA Conference Registration

c/o Judy Witzke

PO Box 13

Unionville, CT 06085-0013

Electronic and Mail in Registration will close on March 20th. Walk in registration will be available on first come first serve basis and as space allows. Credit cards will not be accepted as payment on the day of the conference.

Organizations need to have a current 2012 membership in order for their staff, board members and volunteers to register at the **Organizational** level. Please contact membership@coeea.org if you are unsure if your organization's membership is current.

Your registration at an **Individual** level includes 2012 membership in COEEA.

Retired and **Student** registration rates will also include 2012 membership in COEEA. Students will need to send a copy of their school ID or bring it with them to the conference for verification.

REGISTRATION FORM

*Name _____

Title _____

Organization _____

*Email _____

*Mailing Address & Phone Are Home Work

*Mailing Address _____

*City _____ State _____ Zip _____

Phone _____

I need financial assistance to help me attend.

Please do not add my email address to the COEEA Listserv.

I will bring an item for the silent auction fundraiser.

I will sign in and out for CEUs.

CONFERENCE OPTIONS

Session A _____ 1st choice _____ 2nd choice _____ None

Session B _____ 1st choice _____ 2nd choice _____ None

Session AB _____ 1st choice _____ 2nd choice _____ None

Session C _____ 1st choice _____ 2nd choice _____ None

_____ I am requesting financial assistance. Please contact by email membership@coeea.org to make a request and to verify the amount. Funds are based on availability for COEEA members. Membership is required to qualify.

PAYMENT INFORMATION

Choose Appropriate Category (select only one).

_____ Conference Fee for Current 2012 Organizational Members	\$ 70.00
_____ Conference Fee for Current 2012 Individual Member	\$ 70.00
_____ Conference Fee & 2012 Individual Membership Renewal	\$ 95.00
_____ Conference Fee & Student/Retired Membership Renewal	\$ 90.00
_____ Non-Member Conference Fee	\$130.00

TOTAL _____

Please make checks payable to COEEA Fund.