

Wisconsin Environmental Science Teacher Network Newsletter February 2009

Greetings! How can the Wisconsin Environmental Science Teacher Network help strengthen your environmental science courses? Just let us know what you need - information, resources, or advice - we're here to assist. Send an email or give me a call. I'll also be at WSST next month – don't hesitate to look me up.
~ Sunshine Buchholz, Network Coordinator (www.uwsp.edu/wcee/envsci; sbuchhol@uwsp.edu)

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News

- 1) **Environmental Science Networking at WSST – Friday, March 6, 2:35-3:25**
Come meet other environmental science teachers from around Wisconsin during the “Environmental Science Course Framework” session on Friday at the [Wisconsin Society of Science Teachers Convention](#) in Milwaukee. We will be sharing teaching resources and discussing how you can best utilize the [Wisconsin Environmental Science Course Framework](#). Stop by and see me (Sunshine Buchholz) in the exhibit hall on Thursday night and Friday morning. I'd love to hear about your environmental science successes and ways I can assist you in strengthening your courses.
- 2) **US Ranks Last on Greendex**
You've read the news—everyone wants to be green now. But do you really know how your personal choices are adding up? What about the choices of your fellow citizens? How well are people around the globe adopting behaviors that can make the world a more environmentally sustainable place? National Geographic conducted a study measuring and monitoring consumer progress toward environmentally sustainable consumption in 14 countries around the world. Consumption as measured by the Greendex is determined both by the choices consumers actively make—such as repairing rather than replacing items—and choices that are controlled more by their circumstances, such as the climate they live in. US consumers have the lowest Greendex score at 44.9. Read the full report and calculate your personal Greendex: <http://www3.nationalgeographic.com/greendex/>
- 3) **New Soap Has Westfield in a Lather; School District Uses Biodiesel Byproduct**

A new soap product wasn't tested on animals, but on a school district's director of transportation. Students at Westfield Area High School are creating antibacterial liquid hand soap from the byproduct of their district's biodiesel program. This creates near zero-waste production. The district started making biodiesel last summer, thanks to a grant and help from seven area businesses that provide most of the oil used to make 40 gallons of biodiesel a day. The project has been lauded by the state school superintendent. The district can produce biodiesel for about \$1.15 per gallon, officials said....Full story:
http://portagedailyregister.com/news/local/article_64f0ac02-de11-11dd-96a8-001cc4c002e0.html

Events

4) Free Citizen Science Invasive Species Monitoring Training - May 30-31, 2009
Staff from the National Institute of Invasive Species Science (NISS; www.niiss.org) are developing a national citizen science program that focuses on the collection and integration of data on invasive species among local citizen science and environmental education programs. A website, www.citsci.org, has been created to facilitate with this effort. NISS is partnering with the UW-Madison Arboretum, the Wisconsin DNR, and the Rivers Alliance of Wisconsin to provide trainings that include an introduction to invasive species, invasive species monitoring protocols, global positioning systems (GPS), and use of the website for local data management needs.

As part of this program, they plan to conduct an experiment to test the ability of these trainings to provide citizen scientists with the knowledge and skills they need to monitor invasive species and to conduct scientific research independently. Therefore, they have planned a two-day event at the University of Wisconsin Arboretum in Madison, WI, May 30-31, to conduct this experiment. Rain dates have been scheduled for June 13-14. The first day, May 30 (June 13), will include a full day of training. On the second day, May 31 (June 14), citizen scientists will have the opportunity to test their skills to those of experts by performing tasks at a series of monitoring stations. At least 160 citizens are needed to attend, and they would love to have you or your group participate in this event. If you are interested in participating as a citizen monitor, you can complete a brief questionnaire by going to www.citsci.org and clicking on "Wisconsin Citizen Science Questionnaire". If you are interested in participating as an invasive species expert, please contact Alycia Crall (crall@wisc.edu; 970-227-3310).

5) Take a Stand on Climate Change: Earth Hour
On March 28, 2009 at 8:30 p.m., local time, World Wildlife Fund is asking individuals, businesses, governments and organizations around the world to turn off their lights for one hour -- Earth Hour -- to make a global statement of concern about climate change and to demonstrate their commitment to finding solutions. Turn out. Take action. Be part of this historic event. This largest climate event in history will be celebrated around the globe. Just like New Years Eve, Earth Hour will travel from time zone to time zone starting at 8:30 p.m. in New Zealand. Find out how you and your students can get involved:
<http://www.earthhour.org>

6) 2009 Lake Superior Youth Symposium – May 14-17, 2009
Registration is OPEN for the 2009 Lake Superior Youth Symposium to be held May 14-17 in Duluth, MN at the College of St. Scholastica. The symposium is for grades 8-12 students and teachers who live in or care about the Lake Superior watershed. This is a very unique event that is offered biennially in the states of MI, WI, MN or province of Ontario, organized by educators. New this year is a one day option Friday, May 15 for students and their teachers who are unable to attend the full event but want to learn about Lake Superior. Registration deadline is April 1st, and 20% down is required at registration. There are spaces for about 250 students. For more information, visit: the website: <http://lakesuperioryouth.org/>

7) Energy Fair – June 19-21, 2009
Attend the 20th annual Energy Fair at the ReNew the Earth Institute, Midwest Renewable Energy Association, Custer, WI. Each summer the Energy Fair transforms rural Custer, WI into the global hot spot for renewable energy education. The Energy Fair is the world's largest renewable energy, energy efficiency, and sustainable living educational event of its kind. The Energy Fair features hundreds of workshops and exhibits all emphasizing clean energy & sustainable living and is fun for the whole family. In 2008, the Energy Fair hosted over 22,500 attendees. For more information about the Energy Fair visit www.the-

mrea.org/energy_fair.php. The Wisconsin K-12 Energy Education Program hosts the Educator Resource and Workshop Tents. You can take a graduate level course (Exploring Renewable Energy) at the fair for only \$75 if you live in a Focus on Energy Service territory. Learn more: <http://www.uwsp.edu/cnr/wcee/keep/ProfessionalDevelopment/index.htm>

Opportunities

8) Free Professional Development for Implementing New ES Textbook

Teachers who would like to implement the *Investigations in Environmental Science* curriculum in the 2009-10 academic year have a special opportunity to receive free professional development. This opportunity is being offered as part of a research study funded by the National Science Foundation. The study, being conducted jointly by the University of Michigan and Northwestern University, is investigating differences between online and face-to-face professional development. Each teacher selected for the study will receive 48 hours of structured professional development designed to support the teacher in implementing *Investigations in Environmental Science*. *Investigations in Environmental Science* is a project-based science course in which students investigate real world environmental issues. The professional development will cover both the science knowledge and instructional techniques required to implement the curriculum successfully. Full details: <http://www.geode.northwestern.edu/investigations/development.html>

9) Summer Field Opportunities for Students

Do you have a budding eco-warrior in one of your classes? What about a future naturalist or marine biologist? Teens who love science and the environment are invited to join Green Edventures for one week this summer. They will explore WILD places, have up close encounters with MEGA fauna, and will work side-by-side with other teens while collecting valuable field data for local conservation efforts. Green Edventures programs are for teens ages 14-19 who demonstrate a high maturity level and an eagerness to learn more about natural science. Alaska Kenai Discovery Adventure and Baja Marine Extreme: Sea of Cortez Expedition are being offered in 2009. Interested applicants should go to www.greenedventures.com and click on "Enroll Now" for the application. Applications due by 5/1/09 or until all spaces are filled.

10) Careers in Natural Resources Student Workshop – April 15-18, 2009

Have a student interested in career in forestry, wildlife, conservation law enforcement, soils, water, or natural resource management? This workshop shows students where to get the practical education and training they need to become a forester, botanist, conservation officer, wildlife biologist, outdoor recreation manager, and more. They will explore the campus of Michigan Technological University - School of Forestry while participating in their labs and classrooms. They will experience real-life field work and meet with natural resource professionals in an area that specifically interests them. Juniors and seniors can earn an undergraduate credit from the University of Wisconsin-Stevens Point by attending. Application and more information: http://www.treesfortomorrow.com/careers_workshop_spring_2009.pdf

11) Environmental Education Coordinator, Cloud Forest School, Monteverde, Costa Rica

The Cloud Forest School is situated on 106 protected acres in one of the world's most beautiful, diverse and endangered ecosystems – the cloud forest of Monteverde, Costa Rica. Their mission is “to encourage a new generation of ecologically aware, bilingual individuals with the skills and motivation to make environmentally and socially conscious decisions on a local, national and global scale”. Job duties include developing K-11th grade environmental education curriculum in collaboration with other teachers and teaching 7-11th grade environmental science courses based on AAAS environmental science framework. Salary - \$500/month. Contact: Scott Timm, Director, Cloud Forest School: director@cloudforestschool.org. www.cloudforestschool.org

Resources

12) Need Activity Ideas for Your Environmental Science Class?

Don't forget to utilize the Wisconsin Environmental Science Digital Resource Library. 45 new resources have been added this month! All the resources posted have been submitted by your fellow environmental science teachers in the state. These are their favorite activities, web sites, videos, field trips, and more!

Accessible any time of day and completely free! Check it out:
<http://www.uwsp.edu/cnr/wcee/envsci/Framework/Intro/Intro.htm>

13) The Human Toll of Climate Change - Interactive Map

Science projects dangers to people and their well-being, including severe natural disasters, the spread of disease, loss of coastal communities, and declining crop and fish yields. A new map from the Center for American Progress provides scientific information on these threats, compiled from a variety of sources, and plots this information geographically to show areas of concern. To view this information, select the desired category or categories from the key beside the map. This will display icons on the map in locations where scientific research indicates there may be problems. Click on an icon and a box will appear providing relevant data, as well as the source for the data. Access the map:
<http://maps.scienceprogress.org/climate/index.php>

14) Greenhouse Gas Equivalency Calculator

Did you ever wonder what reducing carbon dioxide emissions by 1 million metric tons means in everyday terms? The EPA has a tool for translating phrases like "metric ton of carbon dioxide" into more everyday terms, such as "the carbon dioxide emissions of a passenger car over two months." Simply enter the amount of emissions in one measure, and the calculator then lists a selection of equivalent measures. Access the calculator: <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

15) A Hot New Resource! Climate Change: A Wisconsin Activity Guide

The Wisconsin Department of Natural Resources is proud to introduce a new climate change guide for educators to use in their classrooms and activities. Designed to teach 7th to 12th grade students about how climate change affects all of us in Wisconsin, Climate Change: A Wisconsin Activity Guide includes twelve engaging activities suitable for classes in English and language arts, environmental education, math, science, art and social studies. Using this guide, Wisconsin teachers can help students investigate the evidence and causes of climate change, examine its impacts on ecosystems, explore and discuss varied social and cultural perspectives, and get involved helping to solve this local and global predicament. The guide's activities are tied to Wisconsin's model academic standards. Educators can preview this timely guide at www.dnr.wi.gov/eek/teacher/climatechangeguide.htm and can order free copies by sending an e-mail to DNRAirEducation@wisconsin.gov with their mailing and email addresses.

16) Wisconsin Urban Forest Activities

You can study urban forests with your students using the Wisconsin K-12 Urban Forest Lesson Guide. This downloadable document features three high school lessons:
http://www.uwsp.edu/cnr/leaf/Educators/lg_urban.aspx. There are nearly 4 billion urban trees in the US today. Another 70 billion trees are growing in suburbs and other metropolitan areas. As urban land in the US expands, so do the urban forests. Urban land in the lower 48 states increased from 2.5% of total land area in 1990 to 3.1% in 2000, and area about the size of Vermont and New Hampshire combined. Researchers from the US Forest Service predict that urban land will nearly trip in size to over 8% of total land area by 2050, an area larger than the state of Montana. (From the Temperate Forest Foundation)

This email was generated by the Wisconsin Environmental Science Teacher Network at UW-Stevens Point.

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