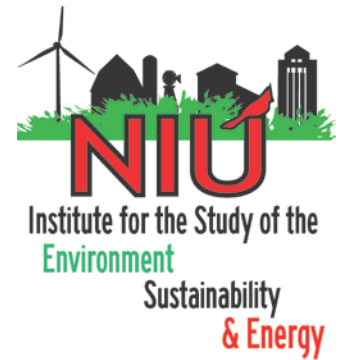




ESE Institute Newsletter

12.15.11



Happy holidays to you all!

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Greetings and Reflections from the Director

What busy and exciting times!

The holidays have arrived and calendar year draws to a close, as does the Environmental Studies program's first semester as a fully approved degree-granting entity. As you all know, in August, 2011, the Illinois Board of Higher Education approved our application and ever since, at a brisk clip, we have been signing up majors in our 6 emphases as well as minors in our updated program. Our Spring 2012 courses are filling up fast, even as we expand enrolment caps.

We're lining up a variety of student internships and independent research project opportunities, and our students and faculty are participating in regional, national and international conferences and research projects. Contact us with your ideas and opportunities.

We will have many lectures during the spring semester that will be open to the public. Many of these are associated with ESE associated searches that are underway for new faculty anticipated in the next fiscal year. Topics include Energy Technologies, Sustainable Engineering, Conservation Biology/Restoration Ecology and Environmental Justice. Be a frequent visitor to our Facebook page, as well as our official website to see what's new and upcoming.

During this past semester students, faculty and staff were involved in several volunteer educational activities such as STEMfest, Camp on Campus, and the Game Day Challenge. We hosted a terrific Open House in September and are working on plans for a Spring Picnic – stay tuned for details. We welcome you to stop by our offices in the Health Services Building, 3rd floor, and share some smiles and enthusiasm for the new year.

The buzz around town is great. To paraphrase Sally Field's famous Oscar speech, "You like us! You really like us!"

-Reed Scherer

RESEARCH HIGHLIGHT

Jonathan Barnes Senior Mechanical Engineering



The Cook Stove

In his personal life, Jonathan Barnes has a general interest in environmental issues. He is particularly interested in the need to find alternative fuel sources and means of producing energy. As an engineering student, he knows that there is a need to have viable means of energy production beyond fossil fuels.

Jonathan first met Dr. Nick Pohlman (mechanical engineering professor and associate with the ESE Institute) when he took the fluid mechanics class. Jonathan enjoyed both the class and Dr. Pohlman's teaching style and expressed an interest in doing some research with him if the opportunity arose. Late in the Spring 2011 semester, Dr. Pohlman approached Jonathan about doing some summer research, which was partially funded by the ESE Institute. The project, which involves a wood-burning stove, started with taking temperature measurements and determining the functionality of the stove in the condition in which it was delivered.

Jonathan completed his summer's research and is now taking this research further. He is using his *Senior Mechanical Engineering Design Project* class to develop a stove that is safe for indoor use in developing countries. He is hoping that the cook stove redesign project will be the start of eliminating the need for open-fire cooking in developing countries, where over 2 million people die each year indoor burning associated ailments.

Jonathan's team to redesign the cook stove is made up of 4 students, supervised by Dr. Pohlman. This team applied for and received an EPA P3 grant. The EPA P3 grant (people, prosperity, and the planet) program "is a unique college competition for designing solutions for a sustainable future. P3 offers students quality hands-on experience that brings their classroom learning to life. The competition has two phases. For the first phase of the competition, teams are awarded a \$15,000 grant to develop their idea. They bring the design in April to the National Sustainable Design Expo in Washington DC to compete for the P3 Award and a grant of \$90,000 to take their design to real world application." (<http://epa.gov/P3/>)



Jonathan hopes that the results of their work will take that first step toward making a difference toward the elimination of open-fire cooking in developing countries.

STUDENT HIGHLIGHT

David Carlsten

Senior Philosophy Major with minors in Business and Environmental Studies

Dave Carlsten is a student who likes to get into long discussions and it is fitting that he switched early on in his studies to major in Philosophy. He likes to think philosophy provides the tools needed to make appropriate decisions about any given situation.

His particular interest is animal ethics: the concept that the most basic interests of non-human animals should be afforded the same consideration as the similar interests of human beings. Dave has been a vegetarian for over six years and explored the area of animal ethics as a way to solidify what he inherently felt was right.

Animal ethics is actually related to environmental ethics in several ways. One of these ways is the analysis of efficient food/nutrition generation. The current methods of food production are inefficient in that we grow crops to feed animals for human consumption instead directly feeding crops to people.

Dave has taken all of the classes required of an Environmental Studies minor. Of all the Environmental Studies courses, *Environment in the Social Sciences and Humanities* was Dave's favorite class, as it provides different human perspectives of the environment: anthropological, political, historical, and philosophical.



DeKalb area family provides extra vegetables to neighbors at no charge

Another class Dave recommends is *Environmental Ethics* with Dr. Jason Hanna (philosophy professor and associate with the ESE Institute) since it presents logical arguments pertaining to the appropriate attitude and treatment of the environment and its members. The topics covered include ethical treatment of animals, plants, and ecosystems as well as our duties to future generations of humans and our approach to the climate change issue.

Dave's words of wisdom are that happiness is a mind set and that we strive for it in any given situation. Consider your behaviors, what effects your behaviors have, and what effects had to happen in order to be able to have those behaviors. And, consume less!

On the individual level, Dave is proud of having devised an efficient way to wash dishes to save water (as nerdy as that sounds). He is also judicious in his electricity use (turn lights off, power strips, energy efficient appliances), and buys local foods when he can (but eschewing meat has a greater impact for the environment than buying local).

Dave believes that having a proper attitude toward the environment signifies virtue and leads to being a happy and healthy human. He finds that it also helps you to see everything as connected and to understand that we are not isolated.

FACULTY HIGHLIGHT

Dr. Rich King
Presidential Research Professor of Biological Sciences

Grew Up: River Falls, Wisconsin

Childhood Memory: He spent countless hours outdoors.

Favorite Book or Movie: Dr. King recommends the following readings: *The Snow Leopard* by Peter Matthiessen; and *The Wilderness World of John Muir* edited by Edwin Way Teale.

A Funny Story: As a child, Dr. King ran into a tree while watching a float plane take off from a lake.



Dr. King measuring a snake

Joined NIU's Faculty: 1989 adjunct; 1995 professor.

Environmental Inspiration: Between growing up during the Vietnam Era radicalism (he was 12 at the time), spending most of his time outdoors, and the passage of several key federal regulations (Clean Air Act, Clean Water Act, and the Endangered Species Act), he knew that the world could be different. He will tell you that he did not choose his career with solving environmental problems as his goal, rather that is what he found interesting.

Interested in NIU ENVS: Dr. King became involved at the very outset of the NIU Institute for the Study of the Environment, Sustainability, and Energy because he wanted to help develop a program that specifically focused on environmental issues, conservation biology, and wildlife management. He also sees the ESE Institute as a way to provide students with training and engaged learning opportunities.

Research Summary: Dr. King works to provide biological data to state and federal agencies charged with protecting biodiversity.

Student Opportunities: He foresees continuing opportunities for students to get involved with biodiversity monitoring and inventory work at area forest preserves.

GIVING TO ENVIRONMENTAL STUDIES

Please consider making a donation to the ESE Institute (home of Environmental Studies). Contributions will be used for student scholarships, program development, or your personal priority. Here is the information on how to direct your online donation to the ESE Institute and Environmental Studies:

- 📍 Go to: <http://www.niufoundation.org/>
- 📍 Make A Gift Now (red button in top-right corner)
- 📍 I'd like my gift designated to:
 - Select "a specific area"
- 📍 Within pop-up box, select "University - General"
 - Select "Institute for the Study of the Environment, Sustainability, and Energy"
- 📍 Enter an amount

GREEN SCENE
What is going on at NIU?

SAVE THE DATE!
Monday, January 30th

Meet with your fellow Environmental Studies students to brainstorm a new student group geared specifically for you. The students who are calling this meeting want to emphasize that this is a hybrid group that encourages thinking outside the box and is meant to enhance the out-of-classroom learning experience.

Bring your ideas, recommendations, interests, etc. and ENVS will provide the food. Some ideas that have been tossed around so far include field trips to get hands-on experience (for example to Freedom Field), visiting businesses to learn about sustainability initiatives, habitat restoration on campus (prairie installation and maintenance), and general networking events (get to know your classmates better).



RecycleMania 2012 Competition

NIU will be participating in the 2012 RecycleMania Competition. More information will be available online at: <http://www.niu.edu/recycling/>.

RecycleMania is a friendly competition among college and university recycling programs in North America and Canada. During 8 weeks each spring, schools compete in different categories to see which institution can collect the largest amount of recyclables per capita, the largest amount of total recyclables, the least amount of waste per capita or have the highest recycling rate.

Whether the goal is to win the national award or simply get students excited about reducing waste, RecycleMania is a winner for all colleges involved!

JOB OPPORTUNITIES AND INTERNSHIPS

Please email us your opportunities or ideas for student internships and/or summer jobs at envs@niu.edu, or contact Reed Scherer directly at reed@niu.edu or 815-753-9381.

Additionally, NIU Career Services has a comprehensive website of resources to help students (and alumni) find jobs and internships in their field of interest. The page for Environmental Studies majors can be found at http://www.niu.edu/CareerServices/weblinks/majors/environmental_studies.shtml.

Persons with disabilities who may need assistance at any ESE event may contact office manager Ruthann Yeaton at 815-753-6563 or ryeaton@niu.edu. To no longer receive this newsletter, please reply to this e-mail with a request to remove your name. Thank you.

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