

NREM Update

Spring 2008 Department of Natural Resources and Environmental Management Ball State University

...Around Campus

NREM Events

April 18
NREM Alumni Awards
Night

April 21- 25: Earth Week
Mon: Cheryl Charles 7pm
Tues: Tent Events 10-3
Electric Car
Rock Wall
Geocaching
COTE Awards 12pm
Th: Tree Planting 9-3

May 5 – 9
Hazardous Materials and
Emergency Response
(HAZWOPER) Training

May 12 - 16
Wetland Characterization

June 9
Alumni Day at the
Indianapolis Zoo. Contact

September 2008
White River cleanup,
Hamilton County. Contact
Amanda Smith at
ads@co.hamilton.in.us

Fall 2008
Apply for the summer
trainee program with the
Indiana NRCS, Contact
Jane Hardisty, NRCS
State Conservationist at
jane.hardisty@in.usda.gov

Greetings from the Chair

Welcome to the first newsletter in 2 years, and please forgive its absence. The past 2 years have seen considerable changes in the department, and around campus. This newsletter will give a briefing on some of what has changed, and point the way to new initiatives and other changes we are expecting. You'll learn about our involvement with major campus programs, hear from alumni and other friends, and learn of retirements and personnel changes affecting us in West Quad.

As always, we value your insights and are excited to learn news from our old acquaintances. Please, stay in touch! – *James Eflin, Chairperson and Professor*

Immersive Learning

Ball State University emphasizes immersive learning experiences for its students. Courses that qualify as immersive learning classes meet all or most of seven goals including having teams of students working on projects that involve community partners and create tangible outcomes.

Dr. Jarka Popovicova, our water quality professor, taught classes in Fall and Spring of 2007-2008 that follow those guidelines. “Dr. JP” presents students with initial issues and overall goals for the project, then allows them to determine the means and methods to implement or reach the goals.

For example, the Honors 297 class during Spring semester partnered with the Delaware County TRIAD organization to raise awareness in the Muncie community about the proper disposal of unused and expired pharmaceuticals. TRIAD representatives met with students to present a concern and will provide feedback on activities and



Storm drain stencil by students in Dr. JP's class

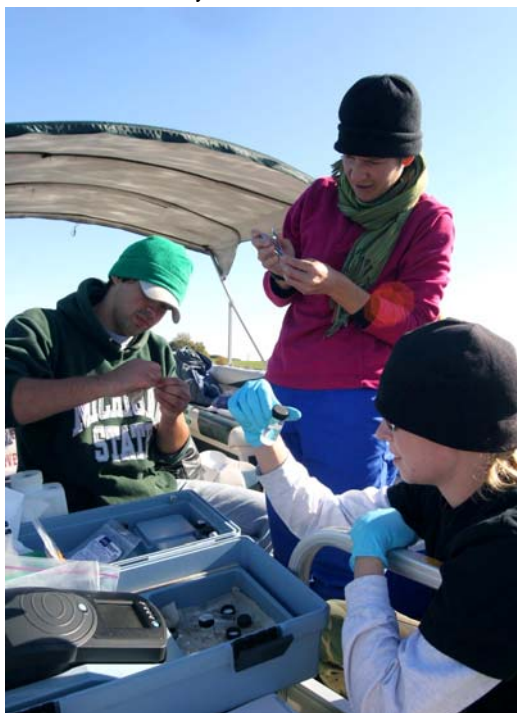
“...this project has opened my eyes to the possibilities of taking my education beyond the classroom and into the community, making a difference in the world, and getting excited to learn”.

Kenneth Brown

outcomes. The 297 class built on work completed by Dr. Popovicova's waste-water class during Fall semester that developed brochures, a presentation, and a billboard on the subject.

...Around Campus (cont'd)

Dr. Popovicova acknowledges that preparation for the class takes more time, but she enjoys acting as a mentor and a facilitator while the students must develop the means and the methods to implement their goals. A second immersive learning class is Popovicova's Water Quality Management class that partnered with the Muncie Sanitary District on stormwater issues.



NREM graduate students sampling water quality at Prairie Creek Reservoir.

As a part of the mandated stormwater program, the Sanitary District is required to work with a community to educate residents about stormwater problems and present means on how they can help to solve the problem through detaching their downspouts from the sanitary sewer system and redirecting water elsewhere. The students developed a campaign to encourage voluntary compliance with the program through publicity, and public meetings that will introduce residents to alternatives, such as rain barrels and rain gardens. Students participating in the immersive learning classes had opportunities to gain real-world experience. According to Dr. Popovicova, "the students have to deal with organizing, innovating, scheduling, collaborating, and reacting to unexpected circumstances, all of which prepare them for future careers."

Dr. James Eflin was also heavily engaged in immersive learning during the past 2 years. He directed a Business Fellows project ("Greening Indiana Communities"; see <http://www.bsu.edu/students/careers/fellows/>) in which 12 students representing 10 majors developed programs to assist Westfield Washington Schools (Hamilton County) and Muncie's Unitarian Universalist Church assess their infrastructure to improve their environmental performances. This followed from a class project NREM 335/535 – Renewable Energy and Sustainable Technology in Spring 2007 that tackled the "greening" of the Delaware County building and the County's operations at the request of County Commissioners. As a follow up in Spring 2008, 26 students from NREM 335/535 worked on 3 projects: Greening Ball Memorial Hospital; Delaware County carbonemissions assessment; and an

assessment of the campus carbon emissions in response to President Jo Ann Gora's signing of the American College and University Presidents Climate Commitment.

Together with immersive experiences in Dr. Amy Gregg's NREM 201 – Undergraduate Seminar, we figure that more than 140 students participated in some form of immersive learning during 2007-2008.

Dr. Pichtel Receives Discovery Award, Directs Australia Centre

Dr. John Pichtel served as Director of the Australia Centre Program during Spring, 2008, teaching 2 courses and enjoying living "down under." While away from Muncie, he learned that the Discovery Awards Committee voted to award him with funding to develop an immersive student experience in Homeland Security Science.

The Discovery Awards group is a women's collaborative philanthropic organization in Muncie that was established to support innovative projects that impact Ball State students and community members. The funding Dr. Pichtel receives will create a new course offering in the NREM department to help prepare students for careers in professions that directly affect our nation's security.

The new course, EMHS 252 – Science of Technological Hazards, will be partly student-driven, with Dr. Pichtel acting as a faculty mentor to guide progress toward three objectives. These include: equipping students with a range of portable detection devices to be used for detection of chemical and biological weapons in several mock disaster scenarios; developing educational programs in citizen awareness of terrorist or industrial disasters (including a "citizen's handbook"); and working in the laboratory to develop a rapid and reliable technique to determine certain proteins which may indicate the presence of a biological weapon.

Immersive learning objectives involve community partners and create an impact on the larger community. To meet these objectives, the students will present the community education programs to Delaware County Township Trustees and business groups. Dr. Pichtel expects the new course to "support BSU students in becoming more

...Around Campus (cont'd)

proficient in disaster awareness and response, significantly strengthen the new Emergency Management and Homeland Security program at Ball State University, and increase citizen awareness to technological threats in Indiana.” The EMHS program is currently offered as an undergraduate minor within NREM, and approval is being sought to offer the program as a major option. A proposal is underway to offer a graduate certificate in EMHS.

NREM and Cardinal Communications

The NREM department was one of several departments which worked with Cardinal Communications – a student organization in Department of Communication Studies – in the development of promotional material. The team of six students spent last year researching the department and interviewing faculty and students. They developed a new brochure for the department to use in recruiting and retaining students. In addition, the group created promotional materials for the Natural Resources Club to use in promoting this year’s Earth Day events. The project through Cardinal Communications provided students with an immersive learning opportunity in public relations to deal with real life clients. For the NREM department, the students learned how to conduct research, how to hold focus groups, how to conduct face-to face and phone interviews, how to create and conduct surveys, and how to put together a strategic plan.



NREM 101 students use resources of the BSU Art Museum.

doctoral student, and **Isabel Meza**, a master’s student. And the CITES Scholarship (from Central Indiana Technical and Environmental Societies) was awarded in the amount of \$1,000 to **Carissa Buchholz**.

Scholarships continue to support NREM students

The Department of Natural Resources and Environmental Management offers undergraduate and graduate students several department-specific annual awards, and rejoiced in awarding these to top students this past year:

Two Alex and Anna I Nicoloff Scholarships were awarded this year in the amount of \$4,000 each to **Carissa Buchholz** and **Ray McKibben**.

The Charles O. Mortensen Fellowship was awarded in the amount of \$2,000 to a Katrina McKinley who will support the department next year through writing projects. This is Katrina’s second time receiving the Fellowship.

Two Clyde W. Hibbs Memorial Scholarships were awarded in the amount of \$4,000 each awarded to **Courtney Hall**, a

...Student Updates

Katrina McKinley was the 2007-2008 Charles Mortensen Fellow, and continues in the year ahead. Her service project involved working with the Cooper Environmental Monitoring Project at the Cooper Farm Research Facility. Under the guidance of Dr. Hugh Brown and John Taylor, she assisted in the installation and mounting of equipment to monitor air, water and stormwater, and ground water data. In addition to the development of an environmental monitoring system, she worked to make the collected data available on-line through the NEXSENS website. Katrina takes over as President of the Natural Resources Club in Fall 2008.

Carissa Buchholz received a nationally-recognized Morris K. Udall Scholarship. She is one of only 22 sophomores in the nation to be named Udall Scholar this year. She also served as President of Ball State University’s Students for a Sustainable Campus organization. In coordination with other colleges and universities, the group organized and presented Focus the Nation, an interdisciplinary teach-in about “Global Warming Solutions for America.” At Ball State, over 50 Ball State staff, faculty and community members participated in presentations, with

more than 400 people attended. Carissa, a Natural Resource Studies major and student representative on Ball State's Council on the Environment plans to pursue a career in the field of renewable energy.



Natural Resources Club officers for 2007-2008, left to right: Katrina McKinley, Lisa Nicklas (President), Adam Abner, Carissa Buchholz

Lisa Nicklas completed a double major in NREM and Geography. She was named Outstanding Undergraduate Student at the NREM Awards Reception. At the Spring 2008 Commencement, she graduated *Summa Cum Laude* from NREM with Departmental Honors and Academic Honors in Writing. Not pausing to take a breath, she married Adam Abner in May, and is starting a new career as an Interpretive Naturalist in Hamilton County.

Sarah Potts presented results of research on the assessment and evaluation of water pollution in tributaries of the Prairie Creek Reservoir at the Student Symposium. She worked under the guidance of Dr. Popovicova.

Tyler Williams also worked with Dr. Popovicova to present research on a pond at Minnetrista in Muncie. He focused on water quality issues and possible solutions to pollution.

...Graduate Students



Isabel in the lab.

Isabel Meza is completing research under the direction of Dr. John Pichtel on the use of permeable reactive barriers as a remedial technology for metal removal from soil and groundwater. She is focusing on reactive materials that reduce, precipitate, and/or sorb hexavalent chromium. Isabel presented preliminary results of her research at the Student Symposium held in March.

Connie Ronald is concluding research on evaluating NRCS wetlands using a rapid assessment technique. She taught a 101 Environment and Society lab with Dr. Amy Gregg.

Courtney Hall is the Science Education section chair for the Indiana Academy of Science and taught NREM 286 – Computer Applications during Spring semester. She also serves as the department Webmistress. She is teaching 3 sections of NREM 101 this summer and is working on her dissertation proposal.

...Faculty and Staff Updates



Diana Fiallos, MS '07, works on stream flow measurements.

Dr. Hugh Brown and Dr. Jarka

Popovicova recently completed a two-year project monitoring 3 watersheds in Delaware County. The results will provide use information to implement more management practices at those watersheds to reduce non-point pollution.

Dr. Amy Gregg and Dr. Jarka

Popovicova are working on a paper addressing the issue of public perception of the Prairie Creek Reservoir and its future development.

Dr. Amy Gregg has been awarded a

grant by the Dean of the College of Arts and Sciences to develop a Heritage Interpretation Program. This interdisciplinary program will involve staff from History, Anthropology, Geography, and the Historic Preservation

program to develop curriculum, a new minor, and possible a graduate certificate that trains students in non-formal educational programs for parks, zoos, and forests. She also received a CERES faculty fellowship to work on sustainable solutions for the greening of parks involving all aspects of the park experience from transportation and energy options to crown management and active learning opportunities. Dr. Gregg was promoted to Associate Professor and will be on sabbatical leave during Fall 2008, living and working in North Cascades N.P. in Washington.

Dr. Thad Godish was the lead

Principal Investigator on a grant intended to improve the communication skills of 911 dispatchers, on-scene commanders, and public information officers across the United States. The grant – valued at more than \$2.5 million – from the U. S. Department of Homeland Security/ Federal Emergency Management Agency will fund the development of a DVD for independent study awareness training for 911 dispatchers and development of an eight-hour Web-based independent study module for use with Ball State University on-site education. Dr. Godish expects to step down from his professorship in the year ahead.



FSEEC personnel start a controlled burn at Cooper Farm.

Stanley H. Ross '81 joined the NREM

staff in January 2008 as our Laboratory/Field Instrumentation Technician, a position that is shared with the Field Station and Environmental Education Center (FSEEC). Prior to joining our staff, Stan worked in various environmental positions in Texas and Indiana. Stan is an avid collector of old maps and also plays a mean accordion!

Dr. Paul Chandler is hard at work writing a new book on American Environmental History, which he expects to publish in the year ahead. He led a major initiative in the department during the past year in as we developed a new plan for course and program assessment based on student-centered learning outcomes.

...Alumni Updates

Heather Rickleff MS '06 is currently serving in the Peace Corps in Attar, Mauritania. Heather did her graduate research work at Lava Beds National Monument and at Death Valley National Park.

Nathaniel "Nat" Baker '04 was promoted to Senior District Executive with the Boy Scouts of America. Nat works in Indianapolis, and part of his position includes offering a strong outdoor program for Scouts.

Stephanie Hays-Mussoni, '97, MA '04, received the Conservation Communication Award from the Wayne County Soil and Water Conservation District, and was trained by the Climate Project to deliver slide show presentations on climate change. She is executive director for Cope Environmental Center, Centerville.

Crystal Rehder '97, is the project manager- OWQ for Indiana Department of Environmental Management, Indianapolis. She sits on the NREM Alumni Society Board of Directors.

Terry Coleman '84, a supervisor for the Indiana Department of Natural Resources Parks and Recreation, was named to the Ball State University Alumni Council's executive committee. He has served on the NREM Alumni Society Board of Directors since 1996, serving as president from 2003-04.

Abigail "Abby" McCoy '06 is a Indianapolis Zoo gardener, where she designs, plans, installs and maintains landscapes in the ocean and marine mammal area.

Amanda Smith '98, president NREM Alumni Society, sends the following letter:
Greetings, fellow Alumni and Friends!

It seems ironic that just as the weather warms up and the plants bloom and leaf out, my desire to get outside and enjoy the season is trumped by the many commitments, chores, and obligations of my schedule. That is just one of the reasons I am so thankful to be a part of the Ball State University Natural Resources and Environmental Management Alumni Society. As a member of the alumni society, I take great pleasure in the ability to celebrate, serve, advise, and, most importantly, stay engaged with the developments of our beloved university.

Getting back to campus is always rewarding and the NREM Alumni Society had that opportunity a few weeks ago as we gathered for the annual Awards Banquet. This is a wonderful time for everyone in attendance to get an update about the department, visit with current and past professors, and honor outstanding alumni.

Dr. Timothy Lyon is retiring from environmental education after 32 years! Many of you had Dr. Lyon for NR 101, a pivotal class for the university and the department That provided many students with their first encounter with natural resource management. **Dr. Hugh Brown** is also retiring this year after 17 years of service. He served as NREM Alumni Society faculty representative and as Chair of the department during his tenure. These beloved professors will be missed and the alumni society wishes them luck and happiness as they pursue their goals outside of the university.

At the evening's core was the privilege to honor three distinguished alumni making notable contributions to their field, community, and their alma mater. **Amy Butcher Dillon '99** and **Kevin R. Rhodes '03** were presented the Award of Merit. This award is presented to alumni achieving remarkable success in the first 10 years since their graduation. Amy is the executive director of the Shelby County Plan Commission, and Kevin is an instructor of Agriculture and Natural Resources at Shawnee Community College in Illinois. The Award of Achievement was presented to **Roger L. Hedge '78**, Heritage Ecologist with the Indiana Department of Natural Resources. For 30



Hugh Brown and Tim Lyon
at the 2008 Awards Banquet

...Alumni Updates (cont'd)

years Roger's dedication to conservation management has resulted in the preservation of many rare and endangered ecosystems throughout the state. He has also contributed to some of the state's most important written natural history resources.



Amy Butcher Dill '99, Roger Hedge '78, Kevin Rhodes '03.

The NREM Alumni Society has several upcoming events worthy of leaving your household chores and other obligations for a few more hours. The group has adopted a one-mile stretch of the White River in Hamilton County and participates in two cleanups a year. We have retrieved over 50 tires, a computer, yards of garden hoses, junk metal, and hundreds of pounds of trash from the banks and bed of the river. We hope to see you at our September clean-up.

Another exciting NREM Alumni Society event is quickly approaching. Pack up the family and join us at the Indianapolis Zoo on Monday, June 9, for discovery and fun. **Paul Grayson '78**, deputy director of the zoo, will tell us about new exhibits before we watch the Dolphin show. Among the exciting exhibits we'll see are two koalas on loan from the San Diego Zoo.

Our NREM Internship Fair is another rewarding annual program. Employees and alumni are

invited to campus to mingle with students looking for seasonal and full time job opportunities. NREM graduates who are working in their fields are encouraged to attend and provide students with, not just potential employment information, but valuable advice that can help steer them into careers that will impact our environment in positive ways.

There are other ways to help NREM if you are so inclined! We ask you to remember the NREM department and students in your charitable donations this year. The benefits of such a gift include making you an active member of the BSU Alumni Association (no other dues are charged). For Indiana residents, the gift can result in a 50% tax *credit* of the amount donated, with a \$200 gift cap for those who file individually, and a \$400 gift cap for those who file as a married couple. You can designate where your gift is used: The 6201 NREM General fund benefits departmental needs; the 6204 NREM Alumni Society provides resources for alumni award programs and special alumni events. The 6255 Charles Mortensen Fellowship and 6253 Clyde Hibbs Scholarship are funds to assist students with tuition or research. Alumni may divide their gift into as many accounts as they desire.

We welcome your input and suggestions as well as the updated information needed in order to keep you posted on future NREM Alumni Society events. As we all look for ways to conserve resources, please keep in mind that contacting us via email or via the internet reduces the need for paper, stamps, and other materials. Please feel free to contact the Ball State Alumni Association online at www.bsu.edu/alumni or email alumni1@bsu.edu. Contact the NREM Department at www.bsu.edu/nrem/. Please join my fellow NREM Alumni Society members and me as we look for opportunities to reestablish our bond to Ball State University! It is time well spent! – *Amanda Smith*



A sunny Earth Day Festival, 2008!



Students for a Sustainable Campus display on Earth Day.

Please keep in touch by completing and mailing the form below to Natural Resources and Environmental Management Department, Ball State University, Muncie Indiana 47306.

Name _____

Street Address _____

City _____ State _____ Zip Code _____

Home Telephone Number _____

Degree and Year Graduated from Ball State _____

Current Position _____

Employer _____

Your News _____

You may also send this information by e-mail to nrem@bsu.edu.

We would be happy to send you a faculty member's e-mail address upon request



NREM Update
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