With this bi-annual newsletter, written and produced by Eric Hope (NRES '13), we aim to keep you informed of developments and accomplishments in the NRES program. One of the questions students, parents and other stakeholders ask us most often is, ‘what kinds of opportunities are there for graduates of the Natural Resources and Environmental Science program?’ One of our goals with this bi-annual newsletter is to introduce our readers to graduates of the program who have become ‘natural resource professionals,’ and to convey a bit about their journeys, and how the NRES program helped them get there. In each issue we highlight one or two of our graduates, and in this issue we introduce you to Amy Sohner (NRCM, ’99), currently the Director of Bluegrass PRIDE (Personal Responsibility in a Desirable Environment), and to Chase Bodkin (NRCM ‘07), currently a wildlife specialist. However, sometimes it’s helpful to hear about the types of positions some of our graduates hold. Our students begin the program with a foundation in social and natural sciences, and from there they build strengths in a set of skills (economics and policy, field and laboratory analysis, or geospatial) and an area of interest (conservation biology, forestry, human dimensions, soil science, water resources, or wildlife—see page 6). With a strong foundation coupled with variation in emphasis, our students are qualified for a wide array of post-graduation opportunities that include such roles as: campus sustainability coordinator, environmental attorney, wildlife biologist, fisheries manager, water quality consultant, field naturalist, and policymaker.

One of the most successful routes to a rewarding professional career is to seize pre-professional opportunities while still a student. An internship or research experience is a requirement for earning an NRES degree and our students have been very successful in landing truly enriching (and very often paid) internships. The program webpage has a new address (http://www2.ca.uky.edu/NRES/) and is...
continuously updated, with listings for internships and job boards. Just go to the ‘current students’ tab, and below that, the ‘internships’ tab to find lots of possibilities. We are always on the lookout for internships and other opportunities for our students and graduates, so if you have knowledge of a relevant opportunity, please send the information to our Academic Coordinator, Geri Philpott, at Geri.Philpott@uky.edu.

As always, if you have news you would like to see included in the newsletter, or other comments or information, please email me at marthur@uky.edu. We are excited about the ways the NRES program is improving and growing, and aim to keep you informed of our activities and engaged in our students’ success.

Attention Alumni!

The NRES program (formerly NRCM) is reaching out to you!

There have been many positive changes in recent years and with over 18 years of history, NRES is still going strong. We want to keep you updated and involved with our students, faculty, and activities.

2011 NRE 301, Trip to Mammoth Cave - Do you have a photo that you would like to share? Email it to geri.philpott@uky.edu

The program has many new improvements!

- New name
- Updated and expanded curriculum
- Newly created Academic Coordinator position
- Redesigned website
- Newly established fund so you can now donate to the NRES program

Don’t worry; we still have some of your favorites!

- Summer Camp still takes place at the Robinson Forest
- Mary Arthur is still the Chair of the Steering Committee
- Many classes are still held in the Forestry Building

- Where are you now?
- What are you doing?
- Would you like to post internships and jobs for current NRES students and alumni?
- We would like to hear from you!

Go to our webpage: www2.ca.uky.edu/nres
and click on the Alumni tab to update your information with NRES.

We welcome gifts to support scholarships and programming for our students.

Checks may be made payable to: ‘University of Kentucky NRES program’
Mail to:
Marci Hicks, Director of Development
College of Agriculture
E S Good Barn
1451 University Drive
Lexington, KY 40546-0097
Interdisciplinary Framework, Room to Focus

The NRES curriculum is grounded in the natural and social sciences, enabling NRES students to bring together an understanding of natural and human systems to solve natural resource and environmental problems. This program supports students whose interests are broadly defined by natural resources and/or environmental issues. From this interdisciplinary framework, students choose one of three Analytical Skill Development areas and one of six Environmental Systems Emphasis areas. By combining a defined skill set with one or more of these environmental systems, endless possibilities for career options unfold.

Analytical Skills
NRES students choose among three distinct skill areas in which to focus. For example, a student interested in environmental law may choose the Economic and Policy Analysis area. For those more interested in hands-on work in the field, the Field and Lab Analysis of Ecosystems skill area may be the best fit. For others who may see a future in geographic information systems, Geospatial Analysis is another option. Skills gained in any of these areas are invaluable for the natural resource professional in a variety of fields.

Environmental Systems
The environmental systems emphasis areas further enhance the skill development areas. Combining Field and Lab Analysis of Ecosystems with Wildlife Management, Soil Science, Conservation Biology, or Forestry are good combinations for those who like to work in the outdoors. Economic and Policy Analysis may be paired with Water Resources and Geospatial analysis with Human Dimensions and Natural Resource Planning to gain understanding of the intricate relationships found in the human-environment interface.

For a description of the nearly endless options found within the NRES program, begin your discovery at: http://www2.ca.uky.edu/nres-files/forms/NRES.UKCore_Curriculum_2011.pdf
NRES Steering Committee Welcomes Two New Members

Dr. G. Andrew Stainback

NRES students interested in policy may know Dr. Stainback as an academic advisor. Starting in the Fall 2012 semester, all NRES students will meet Dr. Stainback as he succeeds Dr. Infanger in teaching Natural Resource Policy Analysis (NRE 381), a required course for both NRES and Forestry students. Dr. Stainback also teaches Human Dimensions of Forestry and Natural Resources (FOR 400) and Law and Policy of Natural Resources (FOR 620).

Dr. Stainback has been at UK since 2009 in the College of Agriculture’s Department of Forestry. He has a law degree from Florida State University and a PhD in Forest Resources and Conservation from the University of Florida. With great interest in human dimensions and the dynamics related to human-environment interactions, he hopes to strengthen that emphasis area within the NRES program.

Dr. Stainback’s research focuses on ecosystem services, such as the role of forests in climate change and ecosystem services related to water. Dr. Stainback also works in Rwanda on “the policy and economics of smallholder agroforestry, as well as the socioeconomics of communities living around Nyungwe National Park.”

Outside of work and research, Dr. Stainback loves international travel, reading, hiking (especially the Appalachian Trail), and spending time with his two-year-old son.

Contact: gdrewst02@uky.edu

Dr. Chris Matocha

Dr. Chris Matocha is most familiar to NRES students who have taken Fundamentals of Soil Science (PLS 366) with him. Trained as a soil scientist, Dr. Matocha also teaches Soil Chemistry (PLS 671) and Clay Mineralogy (GLY/PLS 741).

Dr. Matocha is in his eleventh year in the UK College of Agriculture’s Department of Plant and Soil Sciences. He has a PhD in Plant and Soil Sciences from the University of Delaware, and an M.S. in Soil Science and B.S. in Plant and Environmental Soil Science, both from Texas A & M.

Dr. Matocha first developed an appreciation of soil science growing up on a farm in Texas and participating in 4-H. With knowledge developed from years of research, Dr. Matocha seeks to open students’ eyes to the importance of soils to our environment and society while assisting in training and mentoring students for rewarding future careers. The enthusiasm Dr. Matocha expresses is what students appreciate the most about him.

Dr. Matocha’s research examines the impact of nitrogen fertilization on minerals in soil under no-till agriculture, and nitrogen associations with soil iron and manganese, both of which have implications for water quality. He is also involved in the Tracy Farmer Institute for Sustainability and the Environment and in his spare time enjoys cooking out over a fire pit and playing football with his four children.

Contact: cjmato2@uky.edu
Each year, NRCM/NRES seniors participate in a capstone course, Senior Problem in Natural Resources and Environmental Science (NRE 471). This is a very intensive class where students employ all the knowledge they have gained over their NRES careers to solve a real-world natural resource problem.

This past fall, seniors in the capstone course worked in teams to create watershed plans for six watersheds in Fayette County. This involved extensive research, planning, and data collection and analysis, all culminating in a final presentation for stakeholders in each of the watershed areas.

Through the experience, Leslie Russo, an NRES senior who was in the course, developed field and laboratory skills while networking with professionals outside UK. “I took a role in the analysis of the samples, including spending a day at UK’s Environmental Research Training Laboratories (ERTL) along with Logan Derderian. I also analyzed our samples for copper and iron with Rupal Patel of UK’s Forestry Department.”

Morgan Barnes was also in last fall’s capstone.

Although she says she felt “overwhelmed” at the beginning, it all began to come together for her and her group after getting organized. This was also when she began to understand the true purpose of the course: “I realized that this was more than a senior project I was required to complete for graduation, and that this project could make changes for the better within the community.”

Leslie similarly experienced the real impact of the project. The work her group did was so compelling to residents of the watershed they worked on that a local neighborhood association asked Russo to present the group’s findings at their January meeting. “It was enjoyable, as they were interested and asked good questions,” she remembered.

Those in the NRES capstone course were able to come together and employ all of the skills and knowledge gained during their time in the NRES program to create plans for the various watersheds that had real value to those affected. It wasn’t always an easy experience, but it was rewarding. “I can proudly admit that I survived capstone and helped create an end product that I am more than pleased with,” Morgan said.

“The experience was challenging and satisfying for me on a lot of levels,” Leslie said. “I was able to participate in a project from beginning to end, whose details required various skills to address.” The capstone experience truly is a valuable learning experience, shaping NRES students into future professionals.

Detailed NRES Capstone Information:
http://www2.ca.uky.edu/nres/current-students/capstone
Featured Course: BIO 559 Ornithology

Ornithology, BIO 559, is a spring-semester course which offers students the chance to learn about various biological topics through the exploration of birds. Ornithology is taught by Dr. David Westneat. Although Dr. Westneat doesn’t consider himself an ornithologist, he uses birds to study animal behavior, e.g., parental care and how the environment influences behavior. As a young boy, he gained his love of birds as an active bird-watcher, a love that he still has today.

The course itself is broken into a lecture and laboratory section. Lectures are devoted to biological theory applied to birds, but which can be extrapolated to many other organisms. Through lectures and reading of the primary research literature, students learn about evolution, social behavior, and conservation.

The laboratory section focuses more on the physical than the abstract. Students learn bird identification through birding fieldtrips across Fayette County, observe behaviors in aviaries, and study anatomy through dissecting birds in the lab. Birding trips this semester have yielded sights of a peregrine falcon, bald eagles, and a lesser black-backed gull, a European species rare to Fayette County. Dr. Westneat’s favorite part of teaching ornithology is birding with the students. This is also the favorite part for students.

This course would benefit any NRES student interested in the natural world. Learning about evolutionary processes and understanding attributes that could be applied to many organisms is important for most natural resource professionals. “Those looking for future careers in wildlife management would benefit from developing an understanding of population dynamics and conservation as applied to birds,” Dr. Westneat said. Learning is enhanced through independent study, reading and interpreting original research studies, lecture, and field experience, skills that transcend any one discipline, making ornithology a great course for anyone in NRES.

For more information, contact Dr. David Westneat at david.westneat@uky.edu.

Can you offer an internship or career opportunity to NRES students?

UK’s NRES Program is a great source for qualified candidates! We have many students and recent graduates who are ready to gain hands-on experience in the natural resource and environmental science fields. Contact us today, and we will send your announcement through our student and alumni list serves and post it on campus.

For more information, please contact Dr. Mary Arthur, NRES Steering Committee Chair, at marthur@uky.edu.

Waterfowl birding in Lexington. On this particular trip, students observed two bald eagles and a rare lesser black-backed gull.

Photos (Left) by Eric Hope and (Right) by Henrik Jensen.
Featured Course: PLS 366 Fundamentals of Soil Science

Fundamentals of Soil Science (PLS 366) is taught in alternating fall and spring semesters by Dr. Dave McNear and Dr. Chris Matocha, respectively, both from UK’s Plant and Soil Sciences department. Both trained soil scientists, Dr. McNear earned his PhD in Environmental Soil Chemistry and Dr. Matocha received his PhD in Plant and Soil Sciences, both from the University of Delaware.

This course begins with the study of soil basics, including soil components and how and why soils are classified. Processes, like erosion, are discussed next, followed by soil chemistry, ecosystem services provided by soils, and management for these services as related to soil and water quality issues.

According to Dr. Matocha, all NRES students should be very interested in soil science. With over 99% of our food coming from farmland, human life could not exist without fertile soil. Even the <1% of food that comes from the ocean is directly affected by runoff of eroded soils.

The class itself is broken into two parts: a lecture and a laboratory-field section. In the laboratory, students “learn by doing” through hands-on interactions with soil, such as determining the texture of a soil by feel. Students also go on field trips, such as the trip to UK’s Spindletop Farm in northern Fayette County, where students climb into soil pits to study three soil strata and learn about soil formation. The lecture and text for the course reinforce the topics presented in the laboratory and field.

All NRES students, even those who don’t foresee future careers in soil science, benefit from the knowledge learned in this class. Soils are too often taken for granted. The wide-ranging ecosystem services soils provide include the “Four F’s” of food, fuel, fiber, and filtration, each with great societal benefit. NRES students should have a good understanding of soils, a finite resource that must be used wisely and sustainably to keep providing its services to society while not compromising it for the future—knowledge that they will gain taking this course.

Contact Dr. Matocha at: cjmato2@uky.edu
Contact Dr. McNear at: dave.mcnear@uky.edu

Last Chance for NRES T-Shirts!

We only have 1 Small, 4 Medium, 3 Large remaining!
American Apparel, Organic Cotton, Fair Trade, Alumni Designed
Only $15 with proceeds going to NRES
Contact Geri Philpott at geri.philpott@uky.edu to purchase yours!
Eliza Bodkin is a senior in the NRES program graduating in December 2012. She designed her own individualized emphasis area in Environmental Sustainability and is also working on a minor in Sustainable Agriculture.

Eliza has gained a lot from her time in NRES. “My favorite thing about the NRES program is probably how much applicable knowledge I have gained,” she said. “I feel like the professors in this program love what they do and know what they’re talking about and I’m excited to see how I can transfer what I have learned to my career after college.”

She is also a great example of someone who has had to work hard for her college education. “Up to this past year, I worked full-time to pay my way through college,” she said. Even with a full course load and fulltime job, Eliza has excelled in her courses because of her commitment to her education. “I’ve gotten involved wherever I could, and whenever I did something I did it to my upmost abilities,” she remembered. “Although I haven’t had much time to be involved in a lot of organizations or clubs, I’m hoping that my commitment to my studies and my work experience will set me apart to employers.”

This past summer, Eliza served as an intern at the Life Adventure Center in Woodford County, Kentucky. “I was the horticulture and environmental education intern and I got to work in a teaching garden all summer, helping design and implement programs that could be used for environmental education.”

Eliza was one of two students chosen to present her internship at the fall 2011 NRES Internship Forum during the oral session. Although she has completed her internship, she is still planning on getting her hands dirty for her education. This summer, Eliza will be completing the apprenticeship requirement for her Sustainable Agriculture minor at UK’s organic farm.

As a very committed and hard-working student, Eliza should have no problem finding future success. She has shown great ability in handling the intensive NRES curriculum, all while remaining active in her classes and working a fulltime job. Eliza even took the initiative to go beyond the written guidelines for emphasis areas and created her own to address her own interests. When asked what she thought students in the program should know that made her get the most out of her time at UK, she responded: “My advice to students would be to look outside the box when it comes to finding classes and to not be afraid to break away from the typical choices. If I had done that earlier on, I think I would have been able to delve further into my emphasis areas.”

It isn’t just her hard work, but also her attitude that makes everyone in the NRES program like and respect her. She truly loves the courses she has taken and the work she does, and this will surely continue into her professional life.
Student Highlight: Stratton Hatfield

One look at the name and you might venture to guess Stratton Hatfield is just another UK student from Eastern Kentucky, but as the saying goes, you should never judge a book by its cover. In fact, Stratton is far from a traditional NRES student. He was born in Harare, Zimbabwe and has lived most of his life in Africa, now calling Tigoni, Kenya home.

As his name might suggest, Stratton’s heritage does lie in Kentucky. Both his mother and father are from Ashland (where he still has family). They moved to Africa for his father’s position as an agricultural missionary, now working for a non-governmental organization doing development work. He wanted to come to the US for college and has found a home-away-from-home here at UK within the NRES program, nearly 8,000 miles from Tigoni. He is currently a Junior focusing on conservation biology and economics and policy with minors in biology, international studies, and agricultural economics.

Stratton says that what first attracted him to the NRES program was experience back home. “Growing up in Africa and seeing how integrated people were with their environment made this program look great for me,” he said. “The breadth of the program, involving natural sciences like biology and chemistry along with the social- and policy-related aspects, is what makes this interdisciplinary program great.”

His involvement on campus doesn’t stop at his strenuous course load. Stratton also serves as The Assistant Hall Director at Haggin Hall, the UK Office of Sustainability’s Residence Life Programming Coordinator, and a member of the Agricultural Economics Quiz Bowl Team. Stratton has always had a love and passion for the outdoors. As an avid bird watcher, he has even spoken at events for the Audubon Society.

His off-campus involvement is just as fascinating as he is. He worked as an intern for African Impact, an organization which works closely with the Maasai Mari people and the Koiyaki Guiding School in the Naboisho Conservancy in Kenya doing research on elephants and lions. He specifically worked with volunteers conducting research and game counts. “It was a phenomenal and memorable experience,” he recounted. This summer, Stratton will be doing further research perfecting non-invasive sampling techniques of lions based on genetics.

Stratton plans to further his education after graduation. While he hasn’t yet decided where he will be going, he aims to get a Masters degree in conservation biology with a focus on field ecology or genetics. He is also very interested in studying economic solutions to the poverty that plagues much of Africa, and plans to apply his education back home. Stratton’s long-term plans include becoming a researcher, either in the academic or private sector.

While his story may be different than most, Stratton is the quintessential NRES student. His dedication to his studies and love of the environment add to our program and show just how far one is willing to go for an NRES degree here at UK.
Alumni Highlight: Amy Sohner

Amy Sohner graduated from UK in 1999 with an NRCM degree, focusing on Resource Ecology. Another great example of success coming from the NRCM/NRES program, Amy is now the Executive Director of Bluegrass PRIDE (Personal Responsibility In a Desirable Environment), a nonprofit organization that “provides environmental resources and information to schools, community groups, local governments and citizens in Central Kentucky.”

Amy’s success began right here at UK. Rather than rush through the college experience, Amy decided to enjoy her time here, taking various photography classes and studying abroad in Scotland for one year. Although Amy did not complete an internship while at UK—something that she says is one of her “greatest regrets”—she did work at the North Central 4-H camp while in school doing environmental education.

After graduation, Amy set aside time for travel and “soul searching” before returning to Kentucky. Upon her return, she took a seasonal position at the Salato Wildlife Education Center as a Conservation Education Program Leader. Just before she left, she heard something that would change her life—a new nonprofit called Bluegrass PRIDE had just been formed.

The Executive Director of PRIDE at the time, Angela Dossett (a 2000 NRCM graduate, highlighted in the Fall 2010 Newsletter), offered Amy the position of Program Manager. Although Amy and Angela had not known each other at UK, she is “sure that having an NRCM degree was a benefit when [Angela] was looking at applicants.” Bluegrass PRIDE quickly expanded and Amy moved up the ladder, first to Deputy Director and then to her current position of Executive Director in 2006.

The position of Executive Director is dynamic, especially within a nonprofit organization. “There is a lot of stress around funding, budgets, working with our board of directors and personnel issues, but working with a dedicated group of incredible staff more than makes up for that,” she said. “I often say that as Executive Director, I no longer have the fun part of the job, since the program managers and educators are the ones out in the community doing the great work.” Even so, she finds satisfaction in her position. She is active in policy-making within PRIDE and has input regarding all of their projects. She also enjoys hearing stories of “what a great service PRIDE provides” and is proud to be involved in an organization that makes such a large positive impact on the environment.

Amy is a great example of someone who has gone far with her NRCM degree. “As one of the first people to graduate from the [NRCM] program (my diploma actually says ‘Bachelors of Science in Agriculture’), I worried that I did not learn enough to be prepared for a job in my field. What I found out,” she said, “was that I had learned enough about so many things, that I had many more options that I first thought.”

Her advice to current students in the program would be to “get as much experience as possible before deciding on graduate school or a specific career path. When I was [at UK], I thought that I wanted to be out in a forest mist netting bats or counting salamanders, and now I am in an office attending meetings all day—and I love it.” Amy’s success is not uncommon for graduates from our program and is proof that hard work will lead to great heights, heights that she noted she could not have reached without her NRCM degree.

Bluegrass PRIDE: www.bgpride.org/
Alumni Highlight: Chase Bodkin

Chase Bodkin graduated from the NRCM program in 2007. At the time, there were two tracks in the curriculum, science and policy; Chase followed the science track, focusing on ethnobotany. He currently works for the Cincinnati Zoo and Botanical Garden where he conducts Nocturnal Adventure programs, leading children around the zoo while discussing predator-prey relationships. He also helps with the Carl H. Linder Jr. Family Center for Conservation and Research of Endangered Wildlife (CREW) in an Endocrine Laboratory where they are developing a pregnancy test for polar bears.

Since graduation, Chase has had a number of interesting positions across the country and world. He has worked as a Ramp Agent for Comair Airlines in Kentucky, a volunteer on a veterinary outreach program in Honduras, a Juvenile Fish Surveyor for the Oregon Department of Fish and Wildlife, a volunteer researching spectacled bears in Ecuador, a Research Technician in Florida working with black bears, and was able to further his education in Mongolia through the Cincinnati Zoo. He will be working for the US Geological Survey (USGS) in Montana this summer for the second year in a row, using noninvasive sampling techniques to conduct a DNA survey of grizzly bears. The DNA is extracted from grizzly hair that researchers collect from trees bears have rubbed against, leaving behind tufts of hair.

This extensive list of experiences may not have unfolded without his NRCM degree.

It all began with an internship through the Student Conservation Association (SCA) in Redwood National and State Parks in California which he pursued to fulfill his NRCM internship requirement. He worked as an Invasive and Exotic Plant Technician, mapping and treating exotic plant infestations. This was where he gained his love for working in the field and his appreciation for working alongside like-minded people.

The NRCM program attracted Chase because he has always been concerned with conservation and “how resources play into our day-to-day,” he said. It was a chance for him to learn more about topics that he loved, gaining great experience through his internship and coursework. His advice to students in the program today is to “find something you’re really interested in and want to work with and get to know more about organizations and people that work with whatever it is you want to do.” The connections he made through the program and work experience thereafter have made for a successful post-graduate life, all of which began at UK. For those interested in the programs he has worked for or the Mongolia learning experience he participated in, he provided the following links:

Earth Expeditions: www.earthexpeditions.org
Bear DNA Project: www.nrmsc.usgs.gov/research/NCDEbeardna.htm
CREW: cincinnatizoo.org/conservation/crew
Cincinnati Zoo Nocturnal Adventures: cincinnatizoo.org/education/schools-teachers/animal-adaptations/
Andean Bear Project: http://andeanbear.org/
Professional Resources

Graduates of UK’s natural resource program have a wide variety of professional opportunities in many different sectors and disciplines. There are countless ways to approach the search for a new job, some of which are listed below. More can be found on the NRES website: http://www2.ca.uky.edu/nres/professional-opportunities

Government
- All Federal Jobs
- Environmental Protection Agency (EPA)
- National Park Service (NPS)
- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Fish and Wildlife Service
- Commonwealth of Kentucky
- Lexington-Fayette Urban County

Consulting Industry
- Kenvirons
- Tetratech
- Stantech
- Third Rock Consultants
- Copperhead Consulting

Non Profit
- Bluegrass Pride
- The Association for the Advancement of Sustainability in Higher Education
- World Wildlife Fund
- The Wilderness Society

Nationwide/Worldwide Environmental Job Sites
- Society for Conservation Biology Job Database
- Texas A&M Department of Wildlife and Fisheries Science Job Board
- Society of Wetland Scientists Jobs Board
- Conservation Job Board

Seasonal Employment/Internships
- Coolworks
- The Student Conservation Association
- Cyber-Sierra

Spotlight on Sustainability: University of Kentucky Office of Sustainability

The UK Office of Sustainability is committed to sustainable development on campus and dedicated to fulfilling UK’s goal of graduating responsible global citizens. The NRES program is well connected with the Office of Sustainability; three NRES students are currently employed with the Office: Patrick Johnson, Stratton Hatfield, and Becca Ruiz.

Patrick Johnson is responsible for the Sustainability Ambassador Program which he created while interning for the Office of Sustainability. The goal of this program is to bring together UK faculty and staff to discuss sustainability initiatives on campus, create a culture of conservation and help to implement sustainability concepts and courses into the curriculum. Patrick brings in speakers from across Kentucky to educate and stimulate discussion, with the goal to have an impact on campus mediated through those who work for UK.

Contact: pbjo222@u.ky.edu

Stratton Hatfield is currently the ResLife Programming Coordinator for the Office of Sustainability. His responsibilities are to manage the recycling program in the residence halls and promote sustainability in the campus residential communities through programming. Programs include general recycling (Recycling 101), a program with a bike-powered smoothie machine, and discussions about coal on campus and the effects of natural resource extraction on student residents as consumers.

Contact: stratton.hatfield@uky.edu

Becca Ruiz is the Trade Justice Intern for the Office of Sustainability. The primary goal of her internship is to promote awareness about trade justice issues on campus while working to bring fair trade products to campus, especially from within the garment industry.

Contact: rmru224@uky.edu
Get Involved Beyond the Classroom

Many NRES students are actively involved in campus activities and student organizations. Your college experience isn’t complete without complementing classwork with extramural activities. These are some interesting and exciting experiences that you can be involved in on campus which can be resumé boosters, too!

UK Environmental Science Club
The UK Environmental Science Club is a relatively new club on campus, having started this past fall. The club is mostly made up of NRES students, so it is a great opportunity to get more involved with others in the program. This organization has social, academic, and philanthropic components which provide members with wide-ranging events and opportunities both on and off campus.

Contact Eric Hope (NRES ’13): ejho223@uky.edu
Search ‘UK Environmental Science Club’ on Facebook

UK Greenthumb Environmental Club
The UK Greenthumb Environmental Club is known to most students as the largest student-run environmental club in Kentucky, and has been on campus since 1993. Greenthumb is dedicated to educating members about local and regional environmental issues, but also extends into community involvement through service, activism, and hosting environmental-related events.

Contact P. Johnson (NRES ’12): pbjo222@uky.edu
Search ‘UK Greenthumb’ on Facebook

Trade Justice League
Another new organization to campus, the Trade Justice League, started this spring, was designed to promote trade justice and fair trade on UK’s campus. Their focus is to “make UK a just university when it comes to purchasing foreign and domestic products.”

Contact Becca Ruiz (NRES ’15): rmru224@uky.edu
Search ‘UK Students for Trade Justice’ on Facebook

Earth Days in the Bluegrass Planning Committee
Each April, the UK Office of Sustainability holds a month-long event called “Earth Days in the Bluegrass.” Each day of the month, there is at least one event sponsored by someone on campus. Anyone is able to plan for and carryout an event, so it’s easy to get involved!

Contact Elaine Alvey: elaine.alvey@uky.edu

Kentucky Energy Club
The Kentucky Energy Club is a student-run organization sponsored by the Department of Energy which seeks to educate the public on today’s energy-related issues. They promote tours of various industries, seminars, and lectures related to energy. Their events this year include: a tour of a TVA Nuclear Facility, a tour of the Berea Solar Farm, and a guest speaker on nuclear enrichment and facilities.

Contact Evan Schroader, Pres.: edschr2@uky.edu
Search ‘Kentucky Energy Club’ on Facebook

UK Student Sustainability Council
Each time you pay your tuition, you pay an environmental stewardship fee of $3.00 which goes to “promote the theory, practice, and reality of sustainability on the campus of the University of Kentucky” (Russell Williamson). Those who are members of the Student Sustainability Council are charged with determining how this money (which adds up to $120,000 a year) is used at UK to accomplish these goals, making it a very powerful position!

Contact President: russell.williamson@uky.edu
Academic Enrichment Experience

The NRES program provides students with a wide range of academic enrichment experiences, in and out of class.

**Pre-professional Experiential Learning Requirement**

All NRES majors complete a pre-professional experience, which can be satisfied through an independent research project (NRE 395) or an internship (NRE 399). Internships range from local to international, wildlife to policy, and office to lab to field. The program hosts a yearly Internship Forum to highlight student experiences.

[http://www2.ca.uky.edu/nres/professional-opportunities/internships](http://www2.ca.uky.edu/nres/professional-opportunities/internships)

**NRES Summer Camp**

NRES Summer Camp (NRE 320), one of the most popular NRES courses, is held for 3 weeks in May at the Robinson Forest. Students learn about aquatic ecology, soil classification, water quality, wildlife, mining and reclamation, plant taxonomy, and stream restoration.

[http://www2.ca.uky.edu/nres/current-students/summer-camp](http://www2.ca.uky.edu/nres/current-students/summer-camp)

**Mammoth Cave Field Trip and Service Learning**

In Natural Resources and Environmental Science (NRE 301), students take an overnight field trip to Mammoth Cave National Park. They participate in two days of activities revolving around karst topography and a service learning activity. Taken early in the NRES program, this trip (and class) is essential to student bonding.

**Capstone Course**

All NRES students take Senior Problem in Natural Resources (NRE 471), integrating their classroom instruction, summer camp, internship and applied research experiences. Students examine a natural resource or environmental problem in detail through a team approach, and students conduct field work, research, and analysis, and prepare a report that addresses the problem. Their work culminates in a publication and an oral presentation to other UK students, faculty, and off-campus stakeholders. NRES students enhance their workplace skills, professionalism, teamwork, and technical expertise with this capstone experience.

[http://www2.ca.uky.edu/nres/current-students/capstone](http://www2.ca.uky.edu/nres/current-students/capstone)

**Education Abroad**

In the last couple of years, NRES students have studied in Kenya, Belize, Costa Rica, and Thailand. There are many study abroad and internship abroad opportunities with an environmental focus and it is possible to work a summer or semester abroad into a student’s plan of study.

[http://www2.ca.uky.edu/nres/current-students/study-abroad](http://www2.ca.uky.edu/nres/current-students/study-abroad)

**Hands-On Training Courses**

NRES supplements the curriculum with additional training opportunities. In January 2012 they teamed up with UK Outdoor Pursuits to offer a Wilderness First Responder course. The 9-day course included a comprehensive wilderness medicine curriculum.

[http://www2.ca.uky.edu/nres/about/WFR](http://www2.ca.uky.edu/nres/about/WFR). Since 2011, a Wildland Fire Training course has also been available.
Wilderness First Responder Course

From coast to coast and even abroad, natural resource professionals often find themselves in some of the most remote places in the world. Being in these situations can be very dangerous where even the most simple of injuries can pose real-life risks: proper training could be the difference between life and death for even a sprained ankle, in some situations.

Luckily for students at the University of Kentucky, this January marked the first time that the Wilderness Medical Institute (WMI) of the National Outdoor Leadership School (NOLS) offered their Wilderness First Responder (WFR) course, including adult and child CPR training, here at UK. This intense nine-day course addresses a diverse curriculum of topics with a focus on extended wilderness medical care. Instructors from North Carolina-based Landmark Learning taught the course in the TP Cooper building followed by many outdoor field exercises.

Skills learned during the course included how to give a full head-to-toe examination for patient diagnosis, how to treat various common (and some not-so-common) ailments, and how to best provide the extended care that is often associated with backcountry injury. Students often worked in pairs to diagnose, treat, and evacuate ‘patients’—actors who “experienced” wide-ranging medical and physical complaints and were of diverse demographic backgrounds.

“You really had to think on your feet and be ready for anything,” said Drew Stevens, a Senior NRCM student who took part in the course. Stevens has had some experience working in rescue teams while interning with the USDA Forest Service in the Red River Gorge Geological area. He went on to say, “I feel much more prepared now to handle most physical and medical issues I might come across in the backcountry.”

Eric Hope, a Junior in the NRES program, also took part in this January’s course. On what first interested him in taking the course, Hope recounted, “many of the summer internship positions I was looking at either required WFR certification or at least mentioned that having such a certification would be a bonus. In fact, I’ve since been contacted by two organizations in Wyoming which have mentioned that my having the certification was one of the main reasons I stood out to them.”

The WFR course was also a great way to network with natural resource professionals from across the country. Those taking part in this course included residents from Washington and Pennsylvania. “It was great getting to meet so many people with similar interests from across the country,” said Stevens.

The WFR course was an excellent opportunity for NRES students to learn and become confident about handling situations they may confront in their professional future. “I would definitely recommend this to anyone who sees a future in any outdoor profession,” said Hope.

For more information on taking part in future WFR courses, contact NRES Academic Coordinator Geri Philpott at geri.phillpot@uky.edu.

Special congratulations to: Chase Clark, Eric Hope, Delaney Kennedy, Kylie Schmidt, and Drew Stevens—the NRES program’s five newest Wilderness First Responders!
The following faculty are currently available for NRES student advising.

**Dr. Mary Arthur** is a Professor of Forestry. Her research addresses topics in forest ecology including forest change, prescribed fire, and invasive species.

**Dr. Chris Barton** is an Associate Professor of Forestry whose research focuses on stream restoration following disturbance such as agriculture, mining, and logging.

**Dr. Mark Coyne** is a Professor in the Plant and Soil Science Department, whose research includes bioremediation and waste application.

**Dr. Elisa D’Angelo**, from the Plant and Soil Science Department, studies soil microbial ecology with biochemical and molecular techniques.

**Dr. Mike Lacki** is a professor of wildlife ecology and management in the Department of Forestry. His research includes bat roosting habitats and prey-predator relationships.

**Dr. Brian Lee**, an Associate Professor of Landscape Architecture, applies geospatial analyses to watershed-based land use planning.

**Dr. Dave McNear**, an Assistant Professor of Rhizosphere Science, focuses his work on the biogeochemical processes occurring at the soil-water-plant interface.

**Dr. Chris Matocha** is a Professor in the Plant and Soil Science Department, and his research is on soil chemistry.

**Dr. Andrew Stainback** is an Assistant Professor of Forestry whose academic interests are ecosystem services, land use, and sustainable development.

**Dr. Jack Schieffer** is an Assistant Professor of Agricultural Economics. His research explores the intersection of environmental policy and agriculture and between law and economics.