I’m really excited about this issue of our bi-annual newsletter, written and produced by Eric Hope (NRES ’13). We are highlighting several students who studied abroad this past year, in Germany (Eric Rego, NRES ’13) and Thailand (Becca Aceto, NRES ’13; Ian Becker, NRCM ’12), as well as students who conducted wonderful internships in Kentucky working with UK Cooperative Extension (Kd Eaton, NRES ‘13; Anna Muncy, NRES ‘13), demonstrating the breadth of opportunities available to our students. Many colleges and universities are working hard to give students greater access to study abroad programs, and Geri Philpott (NRES Academic Coordinator) has been very focused on providing students with all the information they need to choose a great study abroad opportunity that will enhance their NRES program. In addition to an increase in the number of students taking advantage of study abroad opportunities, NRES students are finding excellent internships that have enhanced their understanding of what they want to do with their NRES degree. It is great to hear from Kenzie (Nelson) Gleason (NRCM, ’04), currently the Bicycle and Pedestrian Coordinator for the Lexington-Fayette Urban County Government (LFUCG), about her path to a successful career that followed from her internship with LFUCG. This year we’ve expanded the NRES Internship Forum to partner with the College of Agriculture Career Fair to enhance our students’ awareness of opportunities in their field. To our readers who are professionals in the field of natural resources, please know that we are always on the lookout for internship and other opportunities for our students and graduates. If you know of a relevant opportunity, please send the information to Geri Philpott (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.

Education Abroad at UK
315 Bradley Hall
www.uky.edu/educationabroad
(859) 257-4067

Education Abroad at UK offers a variety of programs that allow you to study NRES in an international setting. Immerse yourself in another culture, expand your knowledge of the sciences, and explore what the world has to offer with any one of the exciting opportunities available to you!

**Why study abroad?**

Education abroad can help you...
- Experience natural resources and environmental science first-hand
- Globalize your world view
- Expand your intercultural understanding and problem-solving skills
- Prepare to work in an increasingly diverse and international workplace
- Gain new insights into the world and yourself
- Increase your language skills

**How can I afford to study abroad?**

- The Education Abroad office offers scholarships for students interested in studying abroad. These scholarships range from $500-$1,500. Stop by one of the information sessions on scholarships or visit the Education Abroad website for more information.
- Additionally, most UK financial aid applies towards the cost of studying abroad! Check with your financial aid advisor for more information.
- Finally, there are several education abroad programs that are comparable to the cost of attending UK. So, with a little bit of planning, if you can afford to attend UK, you can afford to study abroad.

**Education abroad has five program types to choose from.**

UK Sponsored, UK Exchange, UK Consortia, UK Direct, and UK Partner. These options can determine:
- How you go abroad: UK faculty led, through another university, through a study abroad vendor, directly to an international university, or through other means.
- What you pay: Tuition will depend on the program type. In some cases you can pay your same UK tuition and study abroad. Different programs also offer different scholarships
- Who you go abroad with: You can go with a group of UK students and remain with them for the entire trip, you can go with a group of students from all over the US, you can go abroad and meet your cohort at your field station, or you can even just attend another university on your own as if you were a regular student.
Here is a sample list of NRES Education Abroad opportunities:

- There are many more programs available, this is just a sample! You can go to the NRES website: www2.ca.uky.edu/nres/current-students/study-abroad to find more potential programs with relevance to NRES.
- Most of the programs below have courses that will count towards NRES major requirements, including the required NRE 395 or NRE 399 (Independent Research Project and Internship).

<table>
<thead>
<tr>
<th>Terms Offered</th>
<th>Location</th>
<th>Name</th>
<th>Sample Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 2</td>
<td>Australia</td>
<td>The Geography and Sociology of the Australian Environment</td>
<td>SOC 360- Environmental Sociology(3), GEO 406G- Field Studies: Australia(3), ISP 599- Education Abroad(1)</td>
</tr>
<tr>
<td>Fall, Spring, Year</td>
<td>Australia (Sydney)</td>
<td>University of Western Sydney</td>
<td>Variety of classes: Many great classes!</td>
</tr>
<tr>
<td>Fall, Spring, Year</td>
<td>England (Lancaster)</td>
<td>Lancaster University</td>
<td>Variety of classes: Conservation Biology, Marine Biology, GIS, Sustainability, Fisheries, Coastal Reefs, and others.</td>
</tr>
<tr>
<td>Fall, Spring, Year</td>
<td>Fiji (Suva)</td>
<td>University of the South Pacific</td>
<td>Variety of classes: Ethics and Sustainability, Renewable Energies, Global Environmental Changes, Forests and Water, Population and Community Ecology, Soil Ecology, German, and others.</td>
</tr>
<tr>
<td>Fall, Spring, Year</td>
<td>Germany (Freiburg)</td>
<td>Environmental Studies and Sustainability</td>
<td>2-3 classes: Renewable Energy, Technology, &amp; Resource Economics Seminar, and Research Project, Language is optional</td>
</tr>
<tr>
<td>Fall, Spring</td>
<td>Mongolia</td>
<td>Geopolitics and the Environment</td>
<td>2 classes: Sustaining the Earth in the 21st Century, Spanish for Natural Resources</td>
</tr>
<tr>
<td>Summer, Fall, Spring</td>
<td>Panama</td>
<td>Biodiversity in the Tropics</td>
<td>4 classes: Wildlife Conservation and Political Ecology, Environmental Field Study, Independent Study Project, Intensive Language Study: Swahili NRE 399- Internship (3), ISP 599- Education Abroad(1) NRE 399- Internship (3), A&amp;S 300 (3), ISP 599- Education Abroad(1)</td>
</tr>
</tbody>
</table>
Certificate of Global Studies

- Demonstrate your preparedness to live and work in a global community with the Certificate of Global Studies.
- For more information, please visit uky.edu/EGE/Certificates/Global/
- The Certificate has four interlocking components: 1) globally focused coursework, 2) second language coursework, 3) credit-bearing education abroad, 4) co-curricular programming.
- **Most NRES students who study abroad can obtain this certificate with a little extra work!**

Attend a First Step Session!

Find out what you can study abroad and where, and ask questions about the application process, financial aid and scholarships, and anything else. First Step Sessions are held on Mondays and Tuesdays from 4-5 p.m. and Wednesdays and Thursdays from 3-4 p.m. in 207 Bradley Hall. You can also speak to Geri Philpott, NRES Academic Coordinator, 215 TP Cooper Building and she can point you in the right direction.

Study Abroad Highlight: Eric Rego

Eric Rego is a senior NRES student with a minor in German. Born in Rio de Janeiro, Brazil, Eric came to the US in 2009 to study at UK. Although his story is very different from many others in the NRES program, he came to the NRES Program for many of the same reasons as the rest of us, and loves taking any opportunity to expand his breadth of knowledge.

Eric went halfway around the globe to study at the University of Heidelberg in Heidelberg, Germany for the Spring 2012 semester. While taking German courses was his main objective, he also took field courses in geology and hydrology, traveling within Germany and learning about familiar topics in a very unfamiliar setting.

“It was nice to be in a different environment and see how different school systems work, and I especially enjoyed interacting with a different culture with different viewpoints,” he said.

When asked if he would recommend studying abroad to other NRES students, he quipped: “Of course! I’ve been studying abroad my entire college career, how could I not recommend it!” Through exploring the broad educational opportunities offered not only here at UK, Eric has been able to get the most out of his experience as an undergraduate student, something he says is the obligation of all NRES students.
This summer, two NRES seniors took their required internship abroad to Thailand. Becca Aceto was able to live at an agricultural research station in the mountains. “Every day (except Sunday), I would go out to a different site and work on different projects… I planted trees, harvested fruit and vegetables, worked with livestock, and tested plants for diseases and helped with lettuce propagation,” she said.

Although it was tough work, Becca loved her experience abroad. “The food, the most genuine people, the colors, the smells… all give me a sense of the diverseness of the world that you just can’t get from staying in one country,” she said. “I could look out my door every morning and see a beautiful mountain range, [and] visited a nearby village to teach English to 4th graders. It was incredibly rewarding.”

Language barriers were also tough. “There were days when I couldn’t work because the head of a department didn’t speak English,” she remembered. Through this all, she made the best out of an amazing experience and would recommend it to all NRES students. “Not only does it give you hands-on field experience, but it will also give you lifelong memories and worldly experiences that are valuable in the workforce and daily life. Every day is an adventure, living in a foreign country!”

Ian Becker, who also interned in Thailand, had very different experiences. “I interned at one of Thailand’s largest agricultural universities, Maejo University,” he said. “During my time there… I worked in soil science, pomology, horticulture, and animal science. Thai universities tend to focus on applied knowledge and give students tremendous amounts of hands-on work, and through this I gained some practical knowledge in a variety of agricultural activities.”

“The experience of going abroad is always exciting and new,” he said. “The best part was coming home with stories and insights of how the rest of the world lives.” Ian would not have been able to have an experience close to this had he stayed in the United States. “By going abroad, I was given a tremendous amount of perspective about agriculture in the developing world,” he said.

Although it can always be unnerving to travel abroad, both Ian and Becca had experiences that can’t be matched in the US. “The opportunities I capitalized on while there were amazing,” Ian said. “For future NRES interns,” Becca said, “don’t let the fear of the unknown or the fear of solitude keep you from doing something you’re interested in. You don’t want to miss out on the amazing opportunities that are out there available for college students!”
Featured Course: FOR 599 Herpetology

Herpetology (FOR 599) is a new course being offered for the first time at UK this upcoming spring semester. Taught by Dr. Steven Price, a recent faculty addition in the Forestry Department. An expert in the field of herpetology, Dr. Price received his PhD from Wake Forest University in Biology with his research there on the effects of urbanization on salamanders. Dr. Price also formerly co-taught a course on reptile and amphibian conservation at Davidson College.

The course itself will be broken up into lecture (3 credit hours) and laboratory (1 credit hour) sections. Prerequisites for the course will include Wildlife Biology and Management (BIO 370) and any introductory biology course (or by consent of Dr. Price).

Early in the semester, students will learn about the origin, phylogeny, and aspects of reptiles’ and amphibians’ evolutionary history along with their relation to other types of animals. Later topics include general anatomy of reptiles and amphibians, aspects of their physiology, their life histories, and finishing with reptile/amphibian conservation and management.

The laboratory section will consist of both field and class components, with trips to the field beginning after temperatures warm up. Some of the experiences students will have in the laboratory section include trapping and marking turtles and capturing native salamanders to learn sampling techniques as well as native species identification. Some of the captured specimens will help build Dr. Price’s collection of herpetofauna which will be used in the classroom.

Although the majority of specimens will be seen in the field, Dr. Price believes that having live specimens in the classroom is essential for learning about these species. “This is a very hands-on course and I would like to use live animals in the classroom nearly every lecture,” he said.

“This course focuses on local-learning, experiential, hands-on and field components… and is very enjoyable,” Dr. Price said. “You can hold everything! It’s not like holding a woodchuck,” he joked. It is Dr. Price’s ambition to offer this course every spring semester.

For more information on the course, please contact Dr. Price at: steven.price@uky.edu or visit him at his office in room 208A in the TPC Forestry Building.
**Featured Course: FOR 325 Economic Botany: Plants and Human Affairs**

Economic Botany: Plants and Human Affairs (FOR 325) is a required course for NRES students. Taught since the Fall of 1999 by Rob Paratley, this course is one of the favorites of NRES students. Although the name may be misleading, Rob says that this is not a botany course but more rooted in social sciences and is broken up into three sections based on three themes. The first theme of the course is “plant domestication and food crops.” From this theme, students will learn about the transition of humans from mainly hunter-gatherer lifestyles into a more sedentary, agriculture-based lifestyle and how plants were domesticated and evolved into the major crops they are today.

The second theme is “plant secondary chemistry, medicinal plants, and psychoactive plants” and is the favorite of both Rob and students. Rob, who experienced health issues years ago, is “very interested in alternative forms of medicine,” he said. He went on to say that “it’s a fact that most non-Western health systems have their base in plants,” something that he’s very intrigued by. Students generally enjoy the medicinal section segueing into plants’ psychoactive properties. “Many students are fascinated to me that some plants produce protective chemicals which mimic signaling chemicals in our own nervous system which can distort perceptions and consciousness,” he said.

The final theme in the course focuses on “plants as commodities.” In this section, students explore the historical importance of many commodity plants (like sugar, tea, coffee, opium, and many others) along with their historical and economic importance.

Since he began teaching the course thirteen years ago, Rob says this is one of his favorite courses. “I get to explore academic and research areas that I’m less familiar with and open up whole new worlds to me,” Rob said. He continued to say that he “likes the kinds of students the class attracts.” For students who have taken the course, the respect is definitely mutual. “My favorite thing about the course is definitely Rob,” said Delaney Kennedy, a senior NRCM student currently enrolled in the course. “He is a very enthusiastic professor who cares deeply about what he teaches and he makes learning very fun and interesting because of his passion and knowledge.”

Although there is a general guideline for the topics covered in the course, Rob says he likes to “keep the course open-ended to allow for digressions depending on what students want to learn more about and really expands from the sharing of knowledge.”

For more information on the course, please contact Rob Paratley at: rparatl@uky.edu or visit him in his office in room 218 (office 217B) in the TPC Forestry Building.
Interning with UK Cooperative Extension Service

Two NRES students, Anna Muncy and Kd Eaton, worked with UK Cooperative Extension Service this summer to fulfill their NRES internship requirement. Anna interned with the Boyd County office, working mainly with their 4-H and Youth Development Agent, Rebecca Stahler.

“The tasks of an extension intern vary dramatically, from teaching classes to identifying plants, plant diseases, and insects,” she said. “I chose this internship because, growing up, I was close with the extension in my county and involved with the 4-H program. I enjoyed it... and knew how much they helped people.”

As with any job that involves teaching, you have to learn everything first. “My favorite part of the internship was how much I learned. Working with extension, I was able to do something different daily... My internship was extremely educational.” All this learning will definitely help her in the future. “I worked in urban areas, agricultural areas, and in an office and I learned what it was like to work in a professional environment.”

The diversity of tasks helped Anna to explore different areas of work while learning a lot in the process. It was an experience where she got to work with all age groups of the public and many different Extension professionals.

Kd was able to work for Amanda Gumbert in the UK College of Agriculture. “I worked in both the lab and field doing soil sampling, laboratory analysis of root and soil structure, as well as plant identification,” she said. “I also participated in water quality activities on the Cane Run watershed.”

“My favorite part was spending mornings (before the midday heat) on the Spindletop Research Farm collecting soil samples, especially... when all the wildflowers were in bloom,” she remembered.

Kd actually came upon the position by chance. “I came across this opportunity while applying for another position which just wasn’t for me,” she said. “Amanda asked if I would like to help her with her research and some extension work, and I felt that it would be a great experience.” She was very lucky to have said yes, too. “[This position] has shown me the varying tasks associated with UK Extension work and has given me lab, field, and research experience, which could help me down the road when I have to conduct my own research for graduate school.”

To learn more about UK Cooperative Extension Service and find out if an internship with them is right for you, visit them at: http://ces.ca.uky.edu/ces/
Summer Camp 2012

Each year, NRES juniors and seniors venture to UK’s Robinson Forest to participate in the program’s required summer camp. This three-week, field-based course allows students to apply much of what they have learned in the classroom to the field and is often NRES students’ favorite part of their undergraduate career.

The curriculum is varied and allows students to explore many different areas. Some of the topics of Summer Camp 2012 included: wildlife with UK’s Dr. Lacki, water with Dr. Pond from the US Environmental Protection Agency, stream restoration with UK’s Dr. Agouridis, and trips to Starfire Mine and Bent Mountain, where a lot of research on mine reclamation takes place with Dr. Patrick Angel of the Office of Surface Mining, Reclamation & Enforcement.

“It was great to have an entirely experiential course in the field,” said NRES senior Cannon Applagate. “Being able to apply what we learn in the classroom to the real world helped us all better understand those concepts.” Most students love that element of the course. Patrick Hayes, another NRES senior, said he “enjoyed the hands-on nature of the course, especially in the wildlife portion. Catching salamanders was a fun experience you really can’t get in a classroom.”

Summer camp isn’t only a time to learn, but is also a time to get to know other NRES students better in an intimate environment. “Relaxing around the campfire and getting to know everyone was great,” NRES senior Naomi Martinez said. “You really don’t get time to do anything like this on campus and it’s really helpful to build relationships with like-minded students at UK.”

The summer camp experience is just another way that the NRES program sets itself apart from most others on campus to give students the best academic career available at UK. Students get to explore one of the most pristine environments left in Kentucky while learning and building relationships that last a lifetime.

Thanks to all the instructors and a special thanks to NRES Academic Coordinator Geri Philpott for making the 2012 NRES summer camp a great success!
Faculty Highlight: Dr. Carmen Agouridis

Dr. Carmen Agouridis is one of the best professors UK has, and the NRES program is happy to welcome her as the newest member of our Steering Committee.

Dr. Agouridis is an expert in stream restoration. She received her PhD from UK in 2004 in Biosystems and Agricultural Engineering while studying grazing best management practices (BMP’s) with relation to stream ecology. Currently, Dr. Agouridis teaches Energy in Biological Systems (BAE 103), Introduction to Stream Restoration (BAE 532), and a graduate special topics course in Biosystems Engineering (BAE 750), along with teaching the stream restoration portion of the NRES Summer Camp course (NRE 320).

Although she teaches these courses, most of the work she does is in research. At UK, she has done wide-ranging research in topics like mineland reclamation and reforestation, hydrology, stream restoration, BMP design for general agricultural practices, and many others.

Even though Dr. Agouridis is extremely busy in her work, her passion for it makes the load worthwhile. “I have a really cool job,” she said. “I get to study and research something I’m passionate about, work with students who share that passion, and help them be successful. I also get to work with the public and have a chance to make a real difference.” She said she really loves working with students and that’s the reason she works at UK and not somewhere like a consulting firm. “I love the reward of seeing someone I helped succeed,” she said.

She also believes that one of the most important ways students can help themselves be successful and happy in their future is by trying out different things and looking in places they might not expect. “I went to a seminar on stream restoration and had an ‘ah-ha’ moment,” she said. From there, she changed her course of study and created the future she has today. By loving her work, her students, and the environment, Dr. Agouridis will be an asset to the NRES Steering Committee and program into the future.

Photos by Matt Barton
Alumni Highlight: Kenzie Gleason

Kenzie (Nelson) Gleason (NRCM '02) is the Bicycle and Pedestrian Coordinator for the Lexington-Fayette Urban County Government (LFUCG). Her career there began with an internship she held with the Division of Planning with the LFUCG, to fulfill her internship requirement for her degree, where she worked under the Greenspace Planner on the city’s Greenway Master Plan. This plan “outlined a system of conservation greenways and trails for recreation and transportation” in the Lexington-Fayette area, and “I did a lot of the mapping and proofing of the plan,” she said. Before this, she didn’t have much “knowledge of the planning field, but,” she said, “it really got me interested in... the big picture, thinking about where we want to be as a community in 20 plus years and a strategy for getting there.”

After graduation, Kenzie worked for the Kentucky Division of Water briefly, when she was contacted by the LFUCG about a newly-created position of Bicycle and Pedestrian Coordinator, a position she was offered and gladly took.

As Bicycle and Pedestrian Coordinator, Kenzie is “charged with making it easier, safer, and more enjoyable for people to get around Lexington by walking and biking,” she said. It’s a position that is anything but one-dimensional. “I plan and prioritize bike and pedestrian projects and write grants to help get the projects funded. When you see a new bike lane, trail, or sidewalk, I was typically involved with that project in some capacity.” She also does a lot of community outreach, educating the community about projects originating within her office and about why and how to bike and walk safely. Currently, Kenzie is working on “rewriting [Lexington’s] roadway design manual to better integrate good bicycle and pedestrian design standards.”

Working closely with other city departments and other organizations in the community is also a large part of her job. “I interact with... Parks and Recreation, Traffic, Engineering, Police... UK, the YMCA,” and many others. Kenzie may never have been offered this position if it weren’t for the internship she had to fulfill her major requirement for NRCM. Besides this, Kenzie found many other elements of the program greatly beneficial to her success. “When I was going through school, I felt like the program was teaching me a little bit about a whole lot of things, rather than mastering one particular subject,” she said. “The fact that the program is so broad and exposes you to so many different fields is really a huge asset.” She continued, “I like that it can lead to so many different kinds of jobs and can allow you to change career paths without having to go back to school.” The education she got in the NRCM program allowed her to try out different positions before deciding on the one she has today. “For people who thrive on diversity of work, I think it’s a great degree,” she added.

In knowing the value of experience, Kenzie said that NRES students should definitely complete as many internships as they can. “Even if you have to work for free and even if it’s after you graduate, experience counts and it leads you to things you might not even know you have an interest in,” she said.
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 online: 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

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**Spotlight on Sustainability: Lexington Farmer’s Market**

NRES student Sandy Broadus is proud to be working at the Lexington Farmer’s Market this year. “Going to the farmer’s market is the best way to support local farmers,” she said. “Direct interaction with the people that grow or raise the food you eat is invaluable.” Sandy also mentioned that “with all the musicians and street performers that gather at the market, it’s also a valuable cultural experience.” She also says that going to the farmer’s market is always a better idea than going to the grocery. “Any ‘real’ food substance that you buy at the grocery can be bought at the farmer’s market: breads, meats, vegetables, cheeses, vinegars, honey, and milk, as well as fresh flowers can be produced at this climate and are sold by local vendors here,” she said. It’s also good for those who want to try out new things. “Shoppers can experiment with new fruits or vegetables they may have never tasted before and talk directly with the growers about how the food is produced along with suggestions on how to cook it,” she said. There is no better way to understand what you’re eating than by talking to the hard-working individuals who produced it.

Sandy works for Elmwood Stock Farm located in Scott County, Kentucky. “Elmwood is the only certified organic farm at the Lexington Farmer’s Market,” she said. Not only is she proud of this fact, but Sandy is also proud to represent them at the market every weekend and encourages everyone to come by for the best food in town and a great, free experience.

The Lexington Farmer’s Market runs Saturdays from 7:00am—3:00pm at the 5/3 Pavilion in Cheapside Park until Thanksgiving when it will be moved indoors to Victorian Square. You may also visit the Sunday Market open 10:00am—2:00PM until the end of October.