The environment’s role in Malawian villagers' forest livelihood decisions

By John Fort, M.S. candidate in Interdisciplinary Ecology

I am conducting research to discover to what extent the environment enters into the livelihood decisions of Malawians living along the border of the Mulanje Mountain Forest Reserve. My research builds upon a 2008 dataset titled, “The coproduction of land use and livelihoods in Malawi.” That project used quarterly surveys to measure household incomes from a suite of livelihood activities, including those which involve the forest. My project adds a qualitative dimension to the dataset by seeking the reasons behind forest livelihood decisions. Whereas the 2008 work quantified how much households earned from particular forest livelihoods, my work seeks to understand why those households decide to pursue or not pursue those same activities.

My project is focused on two villages along the base of the Mulanje Mountain. Mulanje is a 3,000-meter massif, which rises impressively from the plains below. The mountain has a 600-square-kilometer forest reserve, which contains ecologically important species such as the Mulanje Cedar (Widdringtonia whytei) and several miombo hardwoods (Brachystegia sp.). The mountain and its forest provide valuable environmental services to the surrounding communities; it is the source of 15 rivers, and it is one of the few remaining sites at which to harvest firewood. The forest also serves as an important source for building materials and is a renowned location for harvesting traditional medicine.
As with many forests in Africa and around the world, the Mulanje Forest faces increased consumption from rising populations along its boundaries. My research is designed to shed light on this resource utilization by investigating local people’s decisions to use the forest from the perspectives of the users themselves. Specifically, I am curious to know how and to what extent concepts of “the environment” enter into the forest usage decisions of the people living around the mountain. The method I am employing to understand these decisions is called ethnographic decision tree modeling. Based on the data collected from in-depth interviews, my research assistants and I will construct tree models for the decision to pursue or not pursue four different forest livelihood activities. These models will then be tested and revised using questionnaires administered to a larger sample of respondents from the same three villages. Once validated these models will be analyzed for decision criteria related to the environment.

At the end of our data collection period, my research team will share our results with our research communities in order to allow them to see their forest use in a larger context. These results will also be shared with local NGOs and environmental policymakers. It is hoped that by generating insight into the ways in which forest users think about the environment this research will inform policies and programs, which seek to conserve the forest and improve the standard of living among those people who rely on the forest for their livelihoods.

This research is funded by the Tropical Conservation and Development Program’s Field Research Grant.

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Onward and upward

An SNRE grad’s journey to the land of the enemy

By Jason Evans, Ph.D. 2007 in Interdisciplinary Ecology

As someone born, raised and educated entirely within the Florida peninsula, the realization that success in the academic world would almost certainly require a move elsewhere was not an easy one. For that matter, the many years of planting and caring for a wide selection of fruit trees, herbs and natives of all type made it difficult to even think about moving away from the little one-acre homestead that my wife, Sharon, and I had developed out near Micanopy and Paynes Prairie.

So when I did successfully defend my Interdisciplinary Ecology dissertation in March 2007, the usual feelings of relief and pride were accompanied by a sadness, even a tinge of fear, about what graduation implied. But as fate would have it, the day of reckoning was forestalled by a succession of great post-doc opportunities with several SNRE-affiliated faculty, including Dr. Matt Cohen (Forest Resources and Conservation), Dr. Rob Fletcher (Wildlife Ecology and Conservation), Dr. Mark Brown (Center for Wetlands) and Dr. Ann Wilkie (Soil and Water Science).

Of course, an inevitable consequence of all this was that my CV continued to grow, slowly but surely. Increasingly, a little voice in my head (and, admittedly, voices from mentors all around) started speaking of the need to think beyond the comfortable confines of North Central Florida. Half-heartedly at first, Sharon and I began looking through the academic job postings, generally finding this or that reason for concluding that the positions weren't the right fit. But then one day Sharon, sounding strangely blue, told me to check my e-mail and look at a new job posting from the University of Georgia. "Faculty position for Environmental Sustainability Analyst,” the heading called out.

As I read through the posting in its entirety, it became clear that the call for a junior faculty member with broad experience in the science and policy of energy, water and land use in the Southeast was an almost perfect fit for me. To come up with some lame excuse for not applying to this one would be nothing short of career dereliction. While I had heard many great things about the University of Georgia, the Athens community, and the generally mild winter climate, what I will always remember...
most about my interview visits in December 2009 and January 2010 is a bizarre precipitation phenomenon in which a wet, white, powdery material (apparently referred to as “snow” by most non-Floridians) mercilessly accumulated on the frozen landscape. All of this, of course, gave rise to a tinge of doubt: Could we really survive in such a strange, mysterious land?

As it turns out, I was fortunate enough to be offered that Sustainability Analyst position in early 2010 and soon after officially joined the UGA faculty as part of the Carl Vinson Institute of Government's [Environmental Policy Program](#). The appointment's mixture of environmental policy research, extension, and mentoring students in service-learning projects has so far been extremely rewarding.

And a little more time in Athens has indeed revealed it to be a wonderful community, the occasional snow flurry and ice storm notwithstanding. We have found ourselves a beautiful little homestead just south of Athens and have taken up the challenge of experimenting with locally adapted fruit trees and the reintroduction of various native plants into the amazingly hard red clay. Even more life-changing is that Sharon and I are expecting our first child (a boy) in February, with the inevitable question from friends, neighbors and family always being: “Bulldog or Gator.” All I can say to that is “let the boy decide.” As for me … prudence demands a resounding, if winking, “no comment.”

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Interdisciplinary Ecology gets discovered (update)

Enrollment strong despite economic downturn

By Dr. Stephen R. Humphrey, SNRE Director

Prospective students looking at SNRE's graduate degree are curious about how the Interdisciplinary Ecology program is being received. How strong is demand? Has enrollment grown? How has the economic downturn affected admissions? What are the prospects for getting financial assistance to attend?

Interdisciplinary Ecology competes successfully with the best universities in the world for outstanding graduate students. In its first decade, enrollment grew to 145 students, then dropped somewhat due funding pressures of the economic downturn. Sixty-eight percent are doctoral students, and some of our best doctoral students were our master's students. Thirty-eight percent of our students are from outside the United States, and many of our U.S. students conduct their research in other countries. This wide geographic scope adds a strong international flavor to our program. University of Florida faculty like recruiting students into the Interdisciplinary Ecology program because it attracts such excellent talent.

Such talent is rewarded as Interdisciplinary Ecology students are well funded. About 85 percent are supported by state-funded fellowships, assistantships, faculty grants, or external fellowships. These students don't have to borrow to obtain their graduate degree, and they can enter the workforce debt-free. The rest of the students are self-funded from savings or family resources. UF's normal offer of financial support from state funds, or from a combination of state and grant funds, is for two years for master's students and four years for doctoral students. Students needing more time because they chose an unusually difficult research project write grant proposals in partnership with their faculty advisors to support the extra effort. The cost of living in Gainesville is low compared with many areas of the United States. SNRE normally pays $16,000 per year for assistantships and $22,000 for fellowships, plus paying for tuition and basic health insurance. International students are eligible to receive these assistantships and fellowships, as well as to apply for UF's assistantships in Tropical Conservation and Development.
The Interdisciplinary Ecology program provides access to an unusually wide array of courses, and it enables students to achieve the balance of breadth and specialization that custom-fits their goals. Our focus on the Social-Ecological System as the conceptual model for understanding complex, interactive systems is bold and nearly unique. The program is a magnet for students wanting to address both natural and social dynamics, seeking to understand sustainability as a disciplined way of thinking and acting. Each year we admit 25-30 new students. Typical GRE scores for U.S. students admitted are 300 and above (verbal plus quantitative scores, new scale); average GRE for U.S. students funded by SNRE is about 315. International students are required to receive a minimum score of 140 on the GRE verbal exam and 80 on the TOEFL exam.
Working with the Galapagos

SNRE alum envisions a future educational program

By Jenny Basantes, M.S. 2009 in Interdisciplinary Ecology

I am a very enthusiastic Galapagos resident, who had the opportunity to travel abroad and study at the University of Florida. I earned a bachelor’s in environmental science and a master’s in interdisciplinary ecology from the School of Natural Resources and Environment (SNRE). Currently, I am working at Consulting Engineering and Science, Inc., an environmental consulting firm with offices in Miami and the Florida Keys. Being part of this company has been a great learning experience.

I was able to use the knowledge I acquired in school and apply it to develop actions to conserve the environment. I am involved in regulatory environmental compliance and the development of National Environmental Policy Act (NEPA) documentation. I have been trained by the Florida Department of Environmental Protection (FDEP) to receive the National Pollutant Discharge Elimination System (NPDES) certification. This program qualified me to control erosion and sedimentation, and regulate the direct discharge of wastewater to surface waters. I am also a member of the Florida Association of Environmental Professionals (FAEP).

As an environmental consultant my work has been very rewarding. However, my roots and personal interests drive me to continue my initial efforts to help the Galapagos Islands, a very unique and special place whose community is struggling to find a balance between development and conservation. My undergraduate and graduate work at UF has been based on an idea to build a UF-Galapagos connection so that an academic program can take place in the Galapagos and that way we can share knowledge and experiences.

My master's research focused on helping the Galapagos residents and the environment, as we believe helping the locals will positively impact the Galapagos ecology. We believe empowering the community and building local capacity is a key to conserve the environment and achieve sustainable development in rural places like the Galapagos Islands, where people live surrounded by a national park. The idea of the program is to form individuals qualified to help the Galapagos community (and consequently the environment) by promoting programs that empower the locals and build international awareness of our sanctuary.

Currently, professor Stein (my former advisor) and I are working on developing a proposal for this program. We envision it to be a study abroad program for graduate students that revolves around service learning. We are building relationships with UF faculty, since several departments have anticipated a positive reaction towards projects like this one. It has been a great experience, and we hope that this action leads to additional support from other teams striving to achieve the same objective.
A farewell to Meisha

By Matthew Beaton, Editor-in-Chief of The Source

"Some trust in chariots, and some in horses" but most students in the SNRE just trusted in Meisha Wade. Often it was simple, Ms. Wade was so knowledgeable and smart; others times it took more debate, more discussion. But in the end, Meisha did all that she could to help each student achieve his or her scholastic goals.

And for that reason, SNRE will miss her dearly. For 11 years, she deftly guided undergraduate and graduate students through the tempestuous waters of registering for classes, thesis and dissertation committees, and graduation.

Now in her new position as academic coordinator in the Department of Materials Science and Engineering, she advises graduate students, processes degree applications and helps with classroom registration as well as performing other graduate student-related duties.

But she’s had quite a ride in the School of Natural Resources and Environment, serving as academic coordinator. She came, in part, because of a relationship with Stephanie Osteen. They had worked together in the admissions office prior to Osteen transferring to SNRE to serve as academic coordinator. When Osteen moved on to the College of Education, she recommended Wade to SNRE Director Stephen Humphrey.

“It was Stephanie Osteen that actually got me this job,” Wade said.

During her tenure, she built many relationships with students and faculty but none was more important than her friendship with office manager Cathy Ritchie.

“We’ve bonded quite a bit over the 11 years,” Wade said.

Ritchie concurred, saying they developed a strong friendship and that working with Wade had been “fabulous.”

“I’ve always put our friendship in front of all this work stuff,” Ritchie said. “But working together has
been great. It’s been really nice spending time with Meisha in the office.”

Ritchie said the void Wade left – from a work standpoint – has been huge, but she will also “miss her personally.”

Plus, the move will not be easy for Wade either, as she has fostered many strong relationships with SNRE students.

“I think that I’m just going to miss the student interaction,” she said. Frequently, students who were out in the field would return, bringing “a token from that particular place,” which always meant a lot to her. And, as students would move on in the world, it was always wonderful to learn about their personal and professional accomplishments.

“Just to hear back from them and that they’re doing well,” Wade said.

“It always warms my heart to hear those things.”

She also loved helping students. It was extremely rewarding knowing that they valued her efforts, many going so far as to acknowledge her in their dissertations or theses. Additionally, she was frequently told, “If you hadn’t been there I wouldn’t have made it,” or “I’ve been on UF campus for three years and then I found you, and I felt like somebody cared about me—cared about if I make it out of here or not.”

Other events stand out, too. Like the time she wrote a letter of recommendation for a student who was accepted to Duke University.

“That was a big moment for me,” Wade said, laughing, “because little ol’ me wrote a letter that helped somebody get somewhere like that.”

While she’s been with the program, she estimated that 50 students have earned doctoral degrees and 60 or 70 have earned master’s degrees.

This past Nov. 10, when Wade sent out an e-mail announcing her new job, she received a flood of response from students, telling how they would miss her and how much they appreciated her.

“It’s been very nice,” Wade said. “One student wrote that ‘you will always be the face of SNRE’; I thought that was great.”

While another wrote, “You’ve taken care of us; now it’s time for you to move on and take care of others.”

“It warms my heart with the feedback that I’ve gotten,” Wade said.

She started her new job Nov. 19, but “they were kind enough to let me work part time for two weeks (at SNRE),” she said, which eased the transition and softened the blow. However, very little can ameliorate the disappointment of her coworkers and students, for Wade will be sorely missed.
Working Toward a Goal

By Zanethia Choice, M.S. candidate in Interdisciplinary Ecology

Graduating with a degree and work experience in one’s major is very important and could set one above his or her peers. This is the reason that I am a huge advocate for internships and co-ops. I am Zanethia Choice, a first semester master’s student studying interdisciplinary ecology, and I represent the Partnership for Public Service as a federal service student ambassador. With this position, I will use my experience to help promote government jobs and internships to my fellow University of Florida students.

For the past four summers, I have interned with both the USDA (3 summers) and EPA (1 summer), where I have gained lots of knowledge. I have held positions as an entomologist assistant, economist/researcher and ecologist assistant. As an entomologist assistant, I found ecological ways to kill pests and traveled to Australia to study their wildlife and economy. As an economist/researcher, I interned in Washington, DC performing research on food safety requirements. This past summer, I interned with the EPA, and this experience led my pursuit to become an ecologist. While interning with the EPA, I worked on a project creating a database of all the seagrass estuaries located in the United States. When creating this database, I learned about all of the numerous processes that occur within an estuarine system – varying from the wind affects to the movement of sediments to the life of sea grasses. This gave me hands on experience working with people and forming ideas in a field that I hope to one day make my career. This internship has allowed me to use the various skills that I gained at North Carolina Agricultural and Technical State University (my undergraduate institution) and also prepared me for what I am encountering here at the University of Florida in the School of Natural Resources and Environmental. These experiences have greatly helped me with both forming my thesis project and the steps taken throughout my research.
Currently, as a federal service student ambassador, I host programs around campus, present at group meetings, and have advising sessions with students to better prepare them for life after graduation. These presentations include student panel sessions – where students who have previously interned or work for the government share their experiences with fellow students – sessions on how to find and apply for federal opportunities, information sessions by current government employees and sessions providing information on the security clearance process just to name a few. There are over 160 federal agencies that look for employees from all majors. These agencies have numerous internship programs, where students can gain quality experiences and possibly a job after graduation.

Through my experience and activeness around campus, I hope to touch many lives and also pursue my goal to one day become a government employee whom will make a great affect on the environmental policies of the nation.

Check out Choice's [UF GatorFeds Facebook page](https://www.facebook.com/ufgatorfeds) for more about government jobs/internships.

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*Zanethia Choice catches butterflies for sampling while assisting an entomologist in Australia (photo by Zanethia Choice)*

*A waterfall in Australia, captured while Choice was working in the land down under (photo by Zanethia Choice)*
Alumni Update

By Matthew Beaton, Editor-in-Chief of The Source

It’s been a good year for the School of Natural Resources and Environment. Many distinguished graduates have piled up accolades, while others have gained important positions within their field. Here are a few examples:

Amy Sullivan (Ph.D. 2004), who has previously written in The Source about her time in Africa, was featured in Farmers Guardian. The article discussed her current position as leader of the Limpopo Basin Focal Project. Her work there involves analyzing the amount of water available to locals, ensuring that residents properly share and conserve this resource, and educating and creating initiatives to optimally use the existing water for arable land.

Collum Hunter (B.A. 1997) is working with Landmark Associates, a company which performs data management and transcription. They are based out of Tempe, Ariz.

Caroline Keicher (B.S. 2004), who now lives in Washington, D.C., is employed by the Institute for Market Transformation. There, she helps assign energy ratings, works with the company’s Commercial Energy Services Network (CESN) and performs general research and community support activities. Also, she earned a master’s in climate change and sustainable development from De Montfort University in Leicester, U.K.

Tracy Van Holt (Ph.D. 2009) is an assistant professor in the Department of Geography at East Carolina University. Also, she won the 2009/2010 Marianne Schmink Award for “outstanding dissertation in tropical conservation and development.” The first recipient of this award, her dissertation is titled "Influence of landscape change on the nearshore fisheries in southern Chile."

As you can see, SNRE graduates are skipping and jumping all over the globe, but wherever they go, they take along their UF education and glorious Gainesville memories.