

# Futurity: The Next Five Years and Beyond

Dean John Gittleman

**T**he future is here. What will be the best ways to preserve our environments? When will we reach a tipping point for global climate change? Will modern forms of communication (texts, Twitter, Skype...) fundamentally change the way we communicate, educate, think, and solve problems? As a School of Ecology we must develop critical and effective ways to be ready for such changes and to understand the impact they will have on us and our planet.

July 1, 2012 marked the five-year anniversary of the Odum School of Ecology.

Building on the strong foundation of the Institute of Ecology, we have made remarkable strides in service, research, and teaching as well as creating a dynamic culture that will allow us to grow, diversify, and adapt to rapidly changing ecological problems. I want to mention a few accomplishments of the past year that truly amaze:

Our students again topped the charts, receiving two of UGA's three Udall Scholarships (out of only 80 nationwide!); two of UGA's four Goldwater Scholarships; and four of UGA's ten NSF Graduate Research Fellowships ("predocs"). We won both the

Richard B. Russell Award for Excellence in Undergraduate Teaching (Jeb Byers) and the Outstanding Advisor Award (Misha Boyd) from UGA—an extremely rare feat for a single college; extraordinary for a unit of our size.

It's now time for us to develop a new Strategic Plan that will set new intellectual and practical goals and challenges and expand on our unique strengths, including:

- Intensely interdisciplinary work, an "intermingling" of ideas and learning experiences. An important piece of this will be to continue our successful partnering with other colleges such as Veterinary Medicine and Warnell.
- Our small size, which is conducive to a unique learning environment where our students interact closely with faculty and, importantly, one another.
- Transcending scales from local Georgia-centric (e.g. invasives on the coast) to regional (e.g. climate change impacts to east coast forests) to global (e.g. infectious disease, extinction).
- Ensuring that our science translates into policy.
- Continuing to build a culture around principles of creativity, ethics, transparency, productivity, and sheer fun.

We want to hear from you. What do you see as the Big Ecological Problems, what are we missing, how should we strike a balance between local/regional problems vs. broader, global issues?

As Neil Young wrote, "...this old world keeps spinnin' round/It's a wonder tall trees ain't layin' down/There comes a time". The time for Ecology is now!



Ecology students, faculty, and staff receiving honors in 2012 include undergraduate Malavika Rajeev, Undergraduate Academic Advisor Misha Boyd, doctoral student Dara Satterfield, undergraduates Todd Pierson and Theresa Stratmann, and Associate Professor Jeb Byers. Not pictured are undergraduates Scott Saunders and Buck Tribble and doctoral students Rebeca de Jesús Crespo, Eric Goolsby, Linsey Haram, and Troy Simon.

# Mohan Receives NSF Grant to Study “Forests of the Future”



Ph.D. students Megan Machmuller and Peter Baas with Assistant Professor Jackie Mohan and Ecology lab coordinator Paul Frankson at Mohan’s Whitehall Forest research site.

*Photo credit: Paul Efland*

University of Georgia ecologist Jacqueline Mohan has received a \$554,000 grant from the National Science Foundation to help develop more accurate predictions about the impacts of climate change on forests. Her project is part of a five-year collaborative effort led by James Clark of Duke University.

The researchers will study native forest plots at sites up and down the east coast of North America and in Puerto Rico, representing a wide variety of habitat and vegetation types. Some are long-standing research areas, and others are part of NSF’s new National Ecological Observatory Network.

The vast geographic scope and the five year timeline of the project will allow the scientists to observe how different species respond to variations in climate over space and time.

The researchers’ approach is more typical of that taken by public health officials than ecologists, said Mohan, assistant professor in the Odum School of Ecology.

“Jim Clark makes the point that to know how healthy a human population is, you don’t want to know how many people there are, you want to know about demographics—things like the birth rate, death rate, and so on,” Mohan said. “We’re asking the same sorts of questions.”

Mohan and her colleagues will measure indicators such as rates of growth, survivorship, seed output, and success of seedlings for the tree species at each plot.

The species composition at each study site varies, but some are common to sites across regions and habitat types. Seeing how the same species responds to different climates will help the researchers predict which species will be at risk in which regions as the climate shifts.

“In general, climate models predict that the North will become wetter and the South drier, especially during the summer growing season—mirroring what we’ve been seeing over the last 15 years or so,” Mohan said. “We’ll be able to see which

species are most responsive to those sorts of changes, in a positive or negative way.”

They will compare their observations with results from soil warming experiments conducted by Mohan, Clark, and others at Harvard Forest in Massachusetts, Duke Forest in North Carolina, and UGA’s Whitehall Forest in Georgia.

“We’ll use data from across the sites and over time to construct probability models to predict which species are likely to be most at risk from climate change impacts, and which may thrive,” Mohan said. “We want to know how eastern forests may change—how they’ll look, how they’ll function—in response to climate change. Some species will likely decline in abundance, while others will likely become more common.”

The scale of the project, combined with the demographic focus of the research, should result in more accurate models that could help policy makers and natural resource managers plan for the future, Mohan said.

“Since forest functioning and ecosystem services to people depend in part on the composition of dominant tree species, this work will inform those making decisions about things like future carbon sequestration by eastern forests, the provisioning of timber and biofuel resources, and future habitat for plant and animal species,” Mohan said.

Besides Clark and Mohan, the research team includes Alan Gelfand at Duke University, Michael Dietze at the University of Illinois, Andrew Finley at Michigan State University, Marie Uriarte at Columbia University, and Sean McMahon at the Smithsonian Tropical Research Institute.

# OSE Outreach

## RBC Staff, Students Review Southeastern Green Building Programs



Odum School Associate Dean and River Basin Center Codirector Laurie Fowler, Legal Fellow Katie Sheehan, and Graduate Assistant Scott Pippin.

A new report just published by the Southeast Watershed Forum, with research conducted by the University of Georgia River Basin Center, provides a review and analysis of green building programs in the Southeast. The report includes case studies of programs in Georgia, the Carolinas, Florida, and Tennessee, highlighting why and how communities have implemented such programs, and offering encouragement to others that may be considering starting programs of their own.

Green building—a term that encompasses the efficient and sustainable use of resources in siting, land use, design, and construction—can save resources and money by reducing the use of energy, water, and waste disposal, making it of growing interest to communities across the Southeast.

The report was written by Christine Olsenius, executive director of the Southeast Watershed Forum. River Basin Center graduate assistant Scott Pippin, J.D., who is pursuing a master's degree in environmental planning and design, coordinated and edited the research, which was conducted by

RBC Legal Fellow Katie Sheehan and law students Anne Marie Pippin, Becky Gabelman, Alan Jones, and John Templeton. Case studies for the report were researched and written by undergraduates Alex Wright and Sam Johnson, River Basin Center Project Coordinator Amble Johnson, and law students Alex Robertson, Nicole Babcock, Matt Brigman, Brad Brizendine, and Denise Yen. The students were part of the Environmental Practicum course, a graduate level service learning class that provides students in law, ecology, landscape architecture, and other disciplines the opportunity to apply knowledge learned in the classroom to real-world challenges.

Scott Pippin said that the report's case studies offer an in-depth look at green building programs, including each community's motivation for developing the program, program structure, incentives, funding sources, problems and challenges, and results. "The case studies should be especially helpful to local governments that are interested in developing a green building program but aren't sure where to start," he said. "They'll get a good idea of what works on the ground, in our region."

# What we've been up to...

Hi folks,

This is 4th year ecology undergraduate, Malavika, coming your way with a brief update on undergraduate student life at the Odum School:

### ■ ACADEMICS

Many of us took Ecosystem Ecology, a required course, with Dr. Nina Wurzburger. Although it was her first time teaching the course, Dr. Wurzburger did a fantastic job of engaging us in an understanding of ecosystem concepts in both a theoretical and applied context.

Behavioral Ecology, a new upper-level elective offered this past semester, taught by Dr. Vanessa Ezenwa, provided a unique mix of lectures, assignments, discussions, and featured a research project which students took to a new level of cool, including testing if dogs can smell quantities and stalking fish in North Georgia streams and squirrels right here on campus.

### ■ RESEARCH

We had a record number of students present their research at the undergraduate poster session during the annual Graduate Student Symposium. Take a look around the Odum School for some peeks at the participant posters.

Several students also presented at the Center for Undergraduate Research Opportunities (CURO) Symposium, which also boasted a record number of presenters, with over 190 participants.

### ■ ECOLOGY CLUB

Ecology Club had a blast this last year taking many trips and tours. A few highlights include major success with the Athletic Administration in Gameday Recycling, tour of Spring Valley EcoFarm from our very own Professor Emeritus, Dr. Carl Jordan, a tour of the Materials Recycling Facility and Landfill, a bird walk led by Dr. Richard Hall, and a science club mixer cosponsored by Geology Club and Anthropology Society.

### ■ GRADUATION AND BEYOND

Our graduates this year are off to do big things, pursuing graduate studies in ecology at top institutions, professional degrees, and entering the work force; but we'll miss you nevertheless!



Malavika Rajeev

# The Future of UGA Sustainability: The Time is Now

This essay is adapted from Seydel's UGA Sustainability Day keynote address on Oct. 26, 2011.

J. Rutherford Seydel, II  
Chair, Odum School IDEA Board

**M**y great-great-grandfather was one of the first graduates of Lumpkin Law School (which later became the UGA School of Law) in 1859. Compared to a total enrollment of 160 students that year, UGA recently enrolled the largest freshman undergraduate class in the University's history: 5,500 students! That growth in student population correlates with the enormous growth in our state's population: 1,000,000 in 1860 compared to 9,700,000 in 2010. It is said both that "there is strength in numbers" and also that "knowledge is power." There is great strength in the size of UGA's student body, which has access to the power of a world-class education on this campus.

We saw the impact students can have on the University through the student body voting itself an additional green fee to fund the Office of Sustainability. However, we must make every effort to ensure that our university is equally persistent in looking for all possible ways that it can impact the students and the community at large. Through constant innovation, UGA will not only demonstrate leadership in sustainability, it will also capture, excite, and inspire the active minds and imaginations of the students, our university's most valuable resource.

We don't need a crystal ball to envision what the future of UGA sustainability should look like. The trajectory of the University's successes and the present landscape reveal top priority action items. Broadly speaking, UGA has found success when it has innovated. To achieve greater future success, the University must nurture innovation and an evolution—much like the evolution from the candle to the incandescent bulb and now to the light-emitting diode (LED) light. Innovating and optimizing efficiency are tasks



J. Rutherford Seydel II, at left, with Sustainability Day panelists Peter Brosius, director of the Center for Integrative Conservation Research; Daniel Nadenicek, dean of the College of Environment and Design; Odum School Dean John Gittleman; special guest Captain Planet; Rick Watson, director of the Center for Information Systems Leadership in the Terry College of Business; and Scott Angle, dean of the College of Agricultural and Environmental Sciences. Photo credit: Ron Slotin, Trio Media Group

that are never completed. The empowered and educated mind has been the force to create, innovate, and evolve, allowing and accommodating the swelling population of our planet. At UGA, we must have a similar focus to steward the limited funds, endowment, physical space, and livability of our campus and the greater Athens community.

UGA has initiated a climb to new heights in sustainability in recent years. That progress cannot stagnate. Among the University's sustainability accomplishments are the creation of Office of Sustainability, the nation-leading "Every Drop Counts" campaign yielding 20% reduction in water consumption since 2007, and approximately 20% of all food and 30% of fresh produce purchased coming from local Georgia farmers or those in bordering states. Moreover, through these successes, UGA was recognized as part of the Princeton Review's Green Honor Roll in 2010, an honor reserved for those schools leading the way in sustainability. Ensuring that the

University remains competitive with its peers will require a continued, collective, and concerted drive toward sustainability innovation.

In considering the top sustainability priorities as measured across various independent rankings of colleges and universities, there are five priority action items for UGA.

## 1. Climate Action Plan

I commend UGA for being proactive in conducting a greenhouse gas inventory and beginning to develop a climate action plan. I also commend UGA's plan to shut down the University's aging coal-fired steam boiler—one of Athens' biggest single sources of air pollution—and replace it with an alternative to coal, such as natural gas or biomass. That said, it is critical that the University follow through on its plans not only by completing the development of a climate action plan, but by taking the necessary steps to implement and support the climate action plan. As part of

that plan, UGA should join more than 670 schools in the U.S. by signing the American College & University Presidents' Climate Commitment, which would commit the University to developing a long-term plan for achieving carbon neutrality as well as taking strategic short-term actions while that plan is under development, both of which UGA is already on track to do.

## 2. Energy Efficiency (EE)

EE is a source of energy like coal, gas, or nuclear except instead of drilling for it or blowing up mountaintops to get to it, we can tap into this clean energy source by using innovation and ingenuity to do more with the energy we generate. We can work smarter, not harder. To that end, reduced energy demand equals reduced cost and increased opportunity: EE provides a means of freeing up capital for more productive uses—I call it the “Save a Teacher” program—as well as stimulating growth for communities, fostering new business opportunities, and creating more sustainable footprints. UGA has done well by already reducing electricity consumption per square foot by 10% compared to 2007. Notably, the total utility cost in FY2011 for the UGA Athens Campus was nearly \$30 million, with \$19 million of that going for electricity. Thus, an additional electricity savings of 20% via EE would yield an additional \$4 million—how many teachers, research opportunities, and other critical academic priorities would that savings support? UGA could reach and surpass such savings by actively pursuing capital improvement projects or via energy performance contracting, as well as expanding the “Every Watt Counts!” social marketing campaign for energy conservation behavior on campus.

## 3. Renewable Energy

Admittedly, it can be tough to reduce energy consumption to zero; however, every university can make sure that the energy they do use is healthier for students and the planet by being clean and renewable and, thereby, that all donated funds are best utilized for education of the ever increasing student body! At UGA, the planned replacement of the University's coal-fired boiler and plans to add a 10kW solar photovoltaic demonstration array will be a great start. Now, we must keep the momentum going by committing to green

power through expanded on-site renewable energy generation (e.g., solar and combined heat and power), by purchasing locally produced green energy (e.g., sourced from solar and/or biomass), and by continuing on-campus research of the same.

## 4. “Waste” Reduction, Reuse, and Recycling

UGA is currently recycling nearly 50% of campus-generated “waste,” including a robust compost operation on campus and the recycling of construction and demolition debris from major capital building projects on campus. This is a strong step in a positive direction. That said, we need to make a dramatic revision to the way we describe our used materials. “Waste” implies that the material has no value or further use. In fact, most materials can be either reused or recycled. Therefore, I prefer the term “resource.” So, rather than thinking about the issue in terms of “waste management,” it is instead a matter of “resource management.” That simple (and FREE) change in terminology encourages more creative thought around the best and highest uses (and reuses) of the materials around us. Going forward, it is best to collaborate with other peer institutions and universities to follow best practices for additional programs and incentives that encourage expanded reduction, reuse, and recycling.

## 5. Green Building

I commend UGA for currently having standards that require new construction be LEED Silver equivalent or better. Going forward, it is best for the University to develop building and design guidelines for all new construction and renovation projects that mandate good, responsible, and durable environmental design. Green buildings not only save money through reduced utility consumption, they are also healthier and make a much smaller environmental impact on the ecosystem that UGA is a part of. As the guidelines are developed, their scope should be broad and include the entire building project, everything from the site and recycling of construction debris to indoor air quality and energy/water conservation.

We are all proud of UGA's accomplishments past and present, and look forward to more in the future. We must make sure those accomplishments are communicated publicly to maximize recognition for the University's leadership in sustainability and increase the chances that students will get the best placement in this century's sustainable economy. We also must all work together—students, faculty, and administration—to enable the past to be prologue to a bright, sustainable tomorrow at UGA. And today is the day to make that tomorrow possible. THE TIME IS NOW!

**Ecology major Morgan Fleming '08 collecting recyclables with the UGA Ecology Club after a Georgia football game.**

*Photo credit: Beth Newman*



# Unraveling the Ecology and Evolution of Bat Rabies



Daniel Streicker holds a common vampire bat just after it was captured in the Peruvian Andes as part of his research into controlling the spread of rabies virus.

*Photo credit: Claudio Mondalgo*

In the U.S., thousands of people each year are exposed to rabid animals, but the widespread availability of vaccines means that only a few succumb to the fatal disease, mostly following bites from infected bats. In South America rabies remains a largely uncontrolled threat to human health and prosperity, with human deaths on the increase and thousands of cattle dying each year, chiefly infected through vampire bat bites. Two recent studies by Odum School postdoctoral associate Daniel Streicker, Ph.D. '11, provide new insights into the workings of rabies virus in bats.

One study explores how the rate of evolution of rabies virus is affected by where bats live. Streicker and colleagues from the U.S. Centers for Disease Control and Prevention and KU Leuven compiled and analyzed a database of rabies virus genetic sequences from infected bats in the U.S. and South America. They found that rather than being a static trait of viruses, rates of viral evolution were plastic according to their host's behavior, with rabies in tropical bats evolving much faster than very similar viruses that circulate in temperate bats.

"Species that are widely distributed can have different behaviors in different geographical areas," Streicker said. "Bats in the tropics are active year-round, so more rabies virus transmission events occur per year. Viruses in hibernating bats, on the other hand, might lose up to six months' worth of opportunities for transmission while their hosts are less active." These results demonstrate profound effects of host biology on the speed of pathogen evolution, which could be important for anticipating the origins of viral emergence. The team's results could also shed light on transmission dynamics of other viruses, such as influenza, that occur across regions or viruses whose transmission dynamics change with anthropogenic factors such as urbanization or agricultural intensification.

"An elegance of this work is that both geographic location and evolutionary history (phylogeny) is predictive," said Odum School Dean John Gittleman. He added that he and other Odum School researchers, including Associate Dean Sonia Altizer, Assistant Research Scientist Patrick Stephens, Assistant Professor Vanessa Ezenwa, and Ph.D. candidate

Shan Huang, are now looking at similar patterns in other taxa such as carnivores and ungulates.

The other study examines the effectiveness of culling vampire bats, a common strategy for controlling the spread of rabies in Peru, where the study took place.

Streicker, Odum School colleagues, and researchers from the CDC, the Peruvian Ministries of Health and Agriculture, the National University of San Marcos, and the University of Michigan followed rates of rabies exposure across 20 vampire bat colonies throughout Peru over four years. Some of the colonies were regularly culled, some were culled sporadically, and some were left alone. They found, to their surprise, that culling didn't eliminate rabies; exposures to the virus occurred in nearly all colonies in all years. Even more surprising, colonies that were culled sporadically actually had higher rates of exposure than those that were not culled at all.

The team has proposed several theories. Culling practices might tend to target adult bats. "There's some experimental evidence that bats that are exposed repeatedly to rabies may develop a level of immunity," said Streicker. "When you kill off the adult bats that may be immune, you're making space for susceptible bats," such as juveniles or bats that arrive from nearby colonies to take advantage of the newly available premium roost space. This greater mixing of a more immunologically naive bat population might promote greater rabies transmission.

The study will continue for two more years, and its results will help Peru's public health and agriculture officials to implement science-based strategies for controlling rabies.

# ECOLOGY AWARDS

## 2011

**Best Student Paper:** Daniel Streicker

**Distinguished Graduate Teaching:** Christina Baker, Megan Machmuller, and Andrew Mehring

**Environmental Policy Award:** Katherine Edmonds

**Josh Laerm Memorial Outstanding Ecology Undergraduate Award:** Brett Berry

**Odum Global Scholars Award:** Theresa Stratmann

**Richardson-Golley Undergraduate Citizenship Award:** Theresa Stratmann and Sheena Zhang

**Robert A. Sheldon Memorial Award:** Shafkat Khan

**Solitary Glove Service Award:** Jessica Sterling

**UGA Outstanding Teaching Assistant Award:** Athena Anderson, Megan Machmuller, Bill McDowell, and Andrew Mehring

**Dean's Award:** Associate Dean Ron Carroll

**Employee of the Year:** Misha Boyd, Undergraduate Academic Advisor

**Faculty Instructor of the Year:** J Vaun McArthur, Senior Research Scientist at the Savannah River Ecology Laboratory

**Purple Heart Award:** The late Thelma Richardson

## 2012

**Best Student Paper—Basic/Theoretical:** Shan Huang (Honorable Mention: Alexa Fritzsche)

**Best Student Paper—Applied:** Jake Allgeier (Honorable Mention: Kathleen Rugel)

**Josh Laerm Outstanding Ecology Undergraduate Award:** Katherine Helmick

**Golley Memorial Award:** Kathleen Rugel

**Graduate Opportunities Award:** Malavika Rajeev

**Meyer-Helfman Travel Award:** Kimberly Kellett

**Odum Global Scholars Award:** Cynthia Carter

**Richardson-Golley Undergraduate Citizenship Award:** Malavika Rajeev and Matthew Wood

**Robert A. Sheldon Memorial Award:** Carrie Keogh

**Solitary Glove Service Award:** Rebecca de Jesús Crespo and Jamie Winternitz

**Dean's Award:** Beth Gavrilles, P.R. coordinator

**Employee of the Year Award:** Brian Perkins, Systems Administrator Principal

**Faculty Instructor of the Year Award:** Associate Professor Andrew Park

**Purple Heart Award:** Terry Barrett

## 2012 Graduate Student Symposium

Kyle McKay and Kimberly Kellett, GSS Coordinators

January 20–21, 2012, marked the eighteenth annual Graduate Student Symposium at the Odum School of Ecology. The Graduate Student Symposium is organized by graduate students and serves as a medium to showcase ongoing student research at all stages of development. The goals of the symposium are to offer opportunities to give professional presentations, enhance communication between students and faculty throughout the University of Georgia, and provide a forum for interacting with a successful and prominent keynote alumnus or alumna.

The Institute of Ecology Graduate Student Symposium was founded in 1995 by Janice Sand, Liz Kramer, Bob Hall, and Anne Dix. The first symposium involved approximately 10 student presentations on rotary slide trays from 35mm film developed in Ecology's dark room! The success of GSS was immediately apparent with all involved having a great time and students winning presentation awards at national meetings. As the Institute has morphed into the School of Ecology, the event has grown into a two day conference complete with graduate student presentations, undergraduate poster presentations, and a keynote address. Today, prospective students are invited to GSS to "get a feel for what ecology is all about."

This year's symposium featured 40 graduate student presentations, 13 undergraduate poster presentations, and a fantastic keynote lecture by Dr. Matt Whiles, Ph.D. '95. Dr. Whiles highlighted work examining the long-term consequences of amphibian decline due to disease outbreak in tropical streams. He presented data on the stark changes to ecosystem structure and function before and after the decimation of the amphibian community by the chytrid fungus (*Batrachochytrium dendrobatidis*).

GSS would not have happened without graduate and undergraduate student volunteers as well as the generous donation of time, energy, and resources by faculty, postdoctoral researchers, and Odum School of Ecology staff. Thank you all for making GSS a success!



GSS award winners. Front row (L-R): Keri Goodman (Ph.D.), Jenna Malek (Proposed Ph.D.), Emily Cornelius (M.S.), Courtney Collins (M.S.), Kristy Segal

(Ph.D.), Malavika Rajeev (Undergraduate Poster), Rebecca Risser (Undergraduate Poster). Back row (L-R): Dara Satterfield (Proposed Ph.D.), Troy Simon (Proposed Ph.D.), Tyler Kartzinel (Ph.D.), Bill McDowell (Ph.D.). Not pictured: Julie Rushmore (Ph.D.), Gina Botello (M.S.), Theresa Stratmann (Undergraduate Poster), Melanie Fratto (Undergraduate Poster). *Photo credit: Kyle McKay*



Author and Director of the MSU Center for Systems Integration and Sustainability Jack Liu meets up with his former professor and mentor Ron Pulliam at UGA.

## Former Student and Professor Return to UGA Campus for a Seminar Highlighting Their Work

Jianguo (Jack) Liu, Ph.D. '92, and former Institute of Ecology Director and Regents Professor Emeritus Ron Pulliam returned to Athens in December 2011 for a seminar on Liu's recent book *Sources, Sinks and Sustainability*, a collection of essays by more than 50 leading researchers from around the world inspired by Pulliam's work.

*Sources, Sinks and Sustainability*, published by Cambridge University Press, explores the profound, and still growing, impacts of Pulliam's 1988 paper "Sources, sinks, and population regulation" on the field of ecology and beyond. Researchers in disciplines as diverse as microbiology, economics, public health, law, and international relations have found Pulliam's source-sink model relevant to their work, as have natural resource managers and conservation organizations.

The book grew out of a successful symposium organized by Liu, Pulliam's former student, on the occasion of Pulliam's retirement from UGA. Held at the

2008 annual meeting of the U.S. Regional Association of the International Association of Landscape Ecology, the symposium featured speakers, including a number of Pulliam's former students and postdoctoral associates, presenting papers on research and applied science inspired by Pulliam's 1988 paper.

At the time of his retirement, Pulliam was Regents Professor in Ecology. Among many other accomplishments, he is a past president of the Ecological Society of America, former director of the National Biological Service, and was Science Adviser to the Secretary of the Interior from 1996 to 1997. He has more than 70 publications, including papers, articles, and books, to his credit.

Liu holds the Rachel Carson Chair in Sustainability and is a University Distinguished Professor at Michigan State University, where he also directs the Center for Systems Integration and Sustainability.

## Professor Emeritus Bruce Wallace Honored by Colleagues at NABS Annual Meeting

Professor Emeritus Bruce Wallace was celebrated at a special session at the 2011 annual meeting of the North American Benthological Society in Providence, Rhode Island, in May. The meeting room was packed for "A Bug's Life... Insights Gained from the Work of J. Bruce Wallace," which featured presentations by some of Wallace's colleagues and students about research inspired and informed by his work—along with quite a few humorous anecdotes. Presentations included research by: Alex Huryn (Ph.D. UGA Entomology '86), Arthur Benke (Ph.D. UGA Zoology '72), Emma Rosi-Marshall (Ph.D. Ecology '02), Bob Hall (Ph.D. Ecology '96), Matt Whiles (Ph.D. Ecology '95), John Lughart (Ph.D. UGA Entomology '91), Tom Cuffney (Ph.D. UGA Entomology '84), Jack Webster (Ph.D. Ecology '75), Sue Eggert (Ph.D. Ecology '03), UGA Ecology Associate Professor Amy Rosemond, John Davis (Ph.D. Ecology '09), Wyatt Cross (Ph.D. Ecology '04), and UGA Ecology Professor Emeritus Judy Meyer. The session was followed by a reception and trademark Ecology roast of the guest of honor, with Mike Paul (Ph.D. Ecology '99) serving as MC, at the nearby Trinity Brewhouse. The session and reception were organized by Eggert, Rosemond, and Webster.



Professor Emeritus Bruce Wallace (right) enjoys the reception held in his honor at the NABS annual meeting.





The wedding of Gwyneth Moody, MS CESD '06, and Hugo Collantes Moschietti, MS CESD '07, was held on September 24, 2011. It was well attended by Ecology alumni, faculty, and staff.

## 2010

■ **Chip Small**, Ph.D. '10, received the 2011 Graduate Student Excellence-in-Research Award from the UGA Graduate School. He published "Role of the fish *Astyanax aeneus* (Characidae) as a keystone nutrient recycler in low-nutrient Neotropical streams" in *Ecology* in 2011; Distinguished Research Professor **Cathy Pringle** was a coauthor. Small is assistant professor of biology at St. Thomas University in St. Paul, Minnesota.

■ **Carrie Futch**, Ph.D. '10, a postdoctoral researcher with the UGA College of Public Health, received a fellowship in infectious disease and public health microbiology from the American Society for Microbiology and the U.S. Centers for Disease Control and Prevention.

## 2009

■ **Greg Anderson**, MS '09, published "Occupancy Modeling and Estimation of the Holiday Darter Species Complex within the Etowah River System" in the *Transactions of the American Fisheries Society* in January 2012. Coauthors were **Mary Freeman**, adjunct professor; research professional **Megan Hagler**, MS '06, and **Bud Freeman**, senior public service associate and director of the Georgia Museum of Natural History.

■ **Amanda Perofsky**, BS '09, received a NSF Graduate Research Fellowship in 2012. Perofsky is currently pursuing a doctorate in ecology, evolution and behavior at the University of Texas at Austin.

## 2008

■ **Emily Dale Broder**, BS '08, received a NSF Graduate Research Fellowship in 2011. Broder is working toward a doctorate in ecology at Colorado State University.

## 2006

■ **Tim Carter**, Ph.D. '06, director of the Butler University Center for Urban Ecology, received a three-year \$257,000 grant from NOAA to create Following the Life of Water (FLOW), which includes development of a smartphone app to track the path of rain that falls in the Indianapolis area. The project is a collaboration with the Indianapolis Museum of Art and New York City's Mary Miss Studio to pilot the FLOW project. Carter joined the Odum School IDEA Board in 2012.

■ **Gwyneth Moody**, MS CESD '06, joined Georgia River Network as Community Programs Coordinator. Gwyneth and **Hugo Collantes Moschietti**, MS CESD '07, were married in September 2011.

■ **Jaya Srivastava**, BS '06, received a doctorate in biochemistry from the University of Texas at Austin in 2012.

■ **Seth Wenger**, MS CESD '99, Ph.D. '06, was lead author on a paper, "Flow regime, temperature, and biotic interactions drive differential declines of trout species under climate change," published in the *Proceedings of the National Academy of Sciences* in August 2011. Wenger is staff scientist at Trout Unlimited in Boise, Idaho.

## 2003

■ **Paula Marcinek**, MS '03, is a fisheries biologist with the Georgia DNR Stream Survey Team.

## 2001

■ **Karen Mabry**, MS '01, received a National Science Foundation CAREER Award in 2012. Mabry is assistant professor of biology at New Mexico State University.

## 1999

■ **Beth Shapiro**, BS/MS '99, was named to the UGA Alumni Association's "Forty Under Forty" for 2011. Shapiro is associate professor of ecology and evolutionary biology at the University of California, Santa Cruz.

## 1997

■ **Deborah Kane**, MS CESD '97, received a Senior Executive Service appointment to USDA to help scale up the Farm to School initiative starting in 2012. Kane, previously vice president of Food and Farms for Portland-based nonprofit Ecotrust, will lead the interagency Farm to School team;

implement the national Farm to School program, including overseeing a \$5 million grant program; help coordinate the federal programs relating to the school food issue (from the First Lady's Let's Move campaign to the current commodity purchasing program); advise the Administration on Farm to School policies, key strategies and priorities; and promote and represent federal Farm to School programming to Congressional subcommittees, external stakeholders, the media, and others.

■ **Kathryn Patterson Sutherland**, MS CESD '97, Ph.D. Marine Sciences '03, was lead author on a paper, "Human pathogen shown to cause disease in the threatened Eklhorn Coral *Acropora palmata*," published in *PLoS ONE* in August 2011. Sutherland is an associate professor of biology at Rollins College. Meigs Professor **James W. Porter**, Ph.D. student **Jessica Joyner**, and courtesy faculty **Erin Lipp** were coauthors.

## 1995

■ **Matt Whiles**, Ph.D. '95, delivered the keynote address at the 2012 OSE Graduate Student Symposium. Whiles is director of the Center for Ecology at Southern Illinois University—Carbondale. His talk was titled "Assessing the Consequences of Declining Freshwater Biodiversity: Impacts of Catastrophic Amphibian Declines on Central American Streams."

## 1992

■ **Jianguo "Jack" Liu**, Ph.D. '92, edited *Sources, Sinks and Sustainability*, an anthology of essays about work inspired by former Institute of Ecology director **H. Ronald Pulliam's** classic 1988 paper, "Sources, Sinks, and Population Regulation." **Jeffrey Diez**, Ph.D. '05; Associate Professor **John Drake**; **Itamar Giladi**, Ph.D. '04; **Nicholas Haddad**, Ph.D. '97; **Scott Pearson**, Ph.D. '91; former postdoctoral researchers **John Dunning** and **Brent Danielson**; and Pulliam were contributors to the book, published by Cambridge University Press in 2011. Liu holds the Rachel Carson Chair in Sustainability and is a University Distinguished Professor and director of the Center for Systems Integration and Sustainability at Michigan State University. Liu joined the Odum School IDEA Board in 2012.

## 1985

**Florenca Montagnini**, Ph.D. '85, coedited two books, *Restoring degraded landscapes with native species in Latin America* and *Agroforestry as a tool for landscape restoration*, published by Nova Science Publishers in 2011. Montagnini is Professor in the Practice of Tropical Forestry at Yale University School of Forestry and Environmental Studies.

## New Faculty Highlight

### Elizabeth King, Assistant Professor, Odum School of Ecology and Warnell School of Forestry and Natural Resources



Assistant Professor Elizabeth King became interested in ecology at an early age. When she was thirteen she traveled with her family to Kenya, where her father, director of the Yerkes National Primate Research Center, was helping establish a conservation reserve. “Seeing conservation biologists in action inspired me,” she said.

After graduating from Reed College with a degree in biology, she returned to Kenya as a Fulbright Scholar to study the ecology and conservation status of a rare, recently discovered species of aloe.

“After being there for a while, though, it began sinking in that there were bigger problems afoot than the status of this one plant,” she said. “There was a lot of land degradation. I started seeing the human side of environmental issues.”

King explored her growing interest in the intersection of ecological and social systems in her Ph.D. dissertation at the University of California, Davis, which examined using native aloes to restore degraded rangelands in Kenya. She then worked for a year as restoration ecologist and land tenure analyst for the Rehabilitation of Arid Environments Trust and joined the Princeton Environmental Institute as a postdoctoral associate and lecturer, continuing to study sustainability in African dryland social-ecological systems.

King joined the Odum School faculty in January 2012 with a joint appointment to the Warnell School of Forestry and Natural Resources. “There’s nowhere better to think about big-scale integrative ecology than UGA,” she said. “And the

Integrative Conservation Program was a real draw.” King serves on the executive committees of the interdisciplinary Ph.D. Program in Integrative Conservation (ICON) and the Center for Integrative Conservation Research.

Here at UGA, King will continue her work in Kenya on land use, land degradation, and sustainability in dry lands. She is also starting a new tidal marsh restoration initiative on the Georgia coast. “There are lots of people concerned with tidal marsh restoration and management,” she said. “I hope my involvement can add value by integrating across multiple sites and management priorities.”

This fall, along with her ongoing research, King is team-teaching Ecology 3500, Forestry 1100, and a graduate level course for the ICON Ph.D. program.

## First Annual Parents and Families Day

Lee Snelling

Associate Dean Sonia Altizer discusses her research on infectious disease in monarch butterflies during Parents and Families Day.

Photo credit: Lee Snelling



On March 31, 2012, the Odum School of Ecology welcomed 25 families of our undergraduate students. The typical undergraduate parent experience is attending orientation at the beginning of their students’ higher education journey and then four years later returning for graduation. Due to the close-knit community of the Odum School we wanted to engage and inform parents regarding their students’ undergraduate experience.

The day began with a welcome from Dean John Gittleman and undergraduate academic advisor Misha Boyd. We then had a panel of esteemed faculty provide ten minute talks on their ecological area of expertise. Meigs Professor Jim Porter talked about his work with coral reefs. Associate Dean Sonia Altizer focused on her infectious disease research. Assistant Professor Andrew Park introduced the audience to the world of computer modeling. Finally, Associate Professor Jeb Byers

took the parents on a journey to coastal ecosystems. These presentations provided the parents a glimpse of how their students are working alongside professors in the field and in laboratories.

We then had five of our undergraduates give an all-encompassing talk about their undergraduate experience, not just from their individual viewpoints but from a shared perspective. The three major themes that Todd Pierson, Malavika Rajeev, Theresa Stratmann, Buck Tribble, and Becca Risser looked at were what takes place in the classroom, how they have been given rare research opportunities, and how they’ve had an impact through service and outreach.

The program was capped by a tour of faculty labs and a special treat from the students—a chance to interact with a collection of herps from a faculty lab.

We hope we’ve now started a new tradition in the Odum School. More photos of the this year’s event can be seen at: <http://bit.ly/OQplEN> (case sensitive).



Ph.D. student **Shan Huang** was lead author on a paper, "How global extinctions impact regional biodiversity in mammals," published in *Biology Letters* in September 2011. **Dean John Gittleman** was the paper's coauthor. Huang received one of eight 2011 Data Observation Network for Earth (DataONE) Summer Internships to develop bioinformatics modules for education/teaching purposes and received a James L. Carmon Honorarium for innovative use of computers from the UGA Office of the Vice President for Research in 2011.

## Student News

■ Undergraduate **Dina Abdulhadi** received the Cassina Garden Club Scholarship and the Mrs. Sammie S. Flaherty Scholarship from the Garden Club of Georgia in 2011.

■ Ph.D. student **Jake Allgeier** was coauthor of "Marine fisheries declines viewed upside down: human impacts on consumer-driven nutrient recycling" published in *Ecological Applications* in 2011.

■ Ph.D. student **Athena Rayne Anderson** published a paper, "Can Team- and Inquiry-based Methodologies Work in a Field Laboratory?" in the *Bulletin of the Ecological Society of America* in January 2011.

■ Undergraduate **Grover Brown** received an Honors International Scholars Program scholarship in 2011.

■ Ph.D. student **Sarah Budischak** received a NSF Graduate Research Fellowship in 2011.

■ Masters student **Billy Bunch** received the Jim Loftis Scholarship and Garden Club of Georgia Scholarship from the Garden Club of Georgia in 2011.

■ Masters student **Emily Cornelius** received a 2011 Wormsloe Fellowship from the Wormsloe Institute for Environmental History.

■ Ph.D. student **Rebeca de Jesús Crespo** received a 2012 Fulbright Scholarship to support her research collaboration with the Rainforest Alliance in Costa Rica.

■ Ph.D. student **Alexa Fritzsche** published a paper, "The ecology of fear: Host foraging behavior varies with the spatio-temporal abundance of a dominant ectoparasite," in the journal *EcoHealth* in February 2012.

■ Ph.D. student **Carissa Ganong** received a Pilot Grant from the Organization for Tropical Studies in 2011.

■ Undergraduate **Rosemary Gay** received a 2011 National Security Education Program (NSEP) David L. Boren Scholarship for international study. Gay used the award to study Portuguese, take courses in agronomy, and work on an organic farm in Brazil.

■ Ph.D. student **Alyssa Gehman** participated in the #SciFund Challenge crowdfunding project in May 2012. Gehman raised over \$1,200 for her study of a parasite that attacks mud crabs on the Georgia coast. In 2011 she received a grant from the David and Lucille Packard Foundation.

■ Ph.D. student **Keri Goodman** received the Eugene P. Odum Award for best oral presentation on ecological research given by a student at the Association of Southeastern Biologists 2012 annual meeting from the Southeast Chapter of the Ecological Society of America.

■ Incoming Ph.D. student **Eric Goolsby** received a NSF Graduate Research Fellowship in 2012.

■ Ph.D. student **Linsey Haram** received a 2012 NOAA National Estuarine Research Reserve Graduate Research Fellowship to study the impacts of *gracilaria vermiculophylla*, an invasive seaweed, on southeastern estuaries.

■ Ph.D. student **Ashley Helton '11** was lead author on a paper, "Thinking outside the channel: modeling nitrogen cycling in networked river ecosystems," published in *Frontiers in Ecology* in May 2011.

■ Ph.D. student **Tyler Kartzinel** received a NSF Graduate Research Fellowship and a Youth Activity Fund grant from The Explorers Club in 2011.

■ Ph.D. student **Rachel Katz** received the 2011 Josh Laerm Academic Support Award for Graduate Students from the Georgia Museum of Natural History.

■ Ph.D. student **Andrew Mehring** received the 2011 President's Award from the North American Benthological Society.

■ Masters student **James Moree** received a fall 2011 Public Policy Internship from the American Society of Mammalogists/American Institute of Biological Sciences.



HARAM



RAJEEV



STRATMANN



TRIBBLE



MAGORI



SCHMIDT

■ Undergraduate **Todd Pierson** received a 2011 Morris K. Udall and Stewart L. Udall Foundation Scholarship, a 2012 National Geographic Young Explorers grant, a 2012 Youth Activity Fund grant from The Explorers Club, and the 2011 Josh Laerm Academic Support Award for Undergraduate Students from the Georgia Museum of Natural History. Pierson was inducted into the UGA chapter of the national Blue Key Honor Society in April 2011.

■ **Malavika Rajeev**, pursuing a joint B.S. and M.S., received a 2012 Morris K. Udall and Stewart L. Udall Foundation Scholarship, a 2012 Youth Activity Fund grant from The Explorers Club, and the 2011 William Moore Crane Leadership Scholarship from the UGA Honors Program and the Center for Leadership and Service.

■ MS CESD student **Kathleen Raven** received a UGA Graduate School Innovative and Interdisciplinary Research Grant in 2011.

■ **Julie Rushmore**, a joint Ph.D./DVM candidate, and Associate Dean **Sonia Altizer** received a Wildlife Without Borders: Multinational Species Conservation grant from the U.S. Fish and Wildlife Service Division of International Conservation. Rushmore's presentation, "Behavioral determinants of pathogen transmission in wild chimpanzees," was named Best Talk at the Student Conference on Conservation Science New York in October 2011. Rushmore received a grant from the Atlanta ARCS Foundation in 2011.

■ Ph.D. student **Dara Satterfield** received a NSF Graduate Research Fellowship in 2012.

■ Undergraduate **Scott Saunders** received an Ernest F. Hollings Scholarship from the National Oceanic and Atmospheric Administration in 2012.

■ Ph.D. student **Kristy Segal** received a Sigma Xi fellowship in 2011.

■ Ph.D. student **Troy Simon** received a NSF Graduate Research Fellowship in 2012.

■ Undergraduate **Theresa Stratmann** received a 2012 Morris K. Udall and Stewart L. Udall Foundation Scholarship, a 2012 Barry M. Goldwater Scholarship, the 2012 Rotaract Student Service Award for the Odum School, a 2011 Honors International Scholars Program scholarship, and was inducted into the UGA chapter of the national Blue Key Honor Society in 2011.

■ Undergraduate **Buck Tribble** received a 2012 Barry M. Goldwater Scholarship and a 2011 Honors International Scholars Program scholarship. Tribble received a mid-term UGA Foundation Fellowship in 2011.

■ Undergraduate **Brian Wesley Watts** '11 received a 2011 Fulbright Scholarship to teach English in South Korea.

■ Ph.D. student **Jason Westrich** received a NOAA Oceans and Human Health Initiative Fellowship in 2011.

■ Ph.D. student **Jamie Winternitz** received the 2011 Educational Award from the Association of Women in Science.

■ Undergraduate **Sheena Zhang** '11 received the 2011 Rotaract Student Service Award for the Odum School. She also received the inaugural Sustainable UGA Outstanding Student Award.

■ **Barbara Han** received a 3-year fellowship from the National Institutes of Health to study zoonotic infectious diseases with Associate Professor **John Drake**.

■ **John Kominoski**, Ph.D. '07, and Associate Professor **Amy Rosemond** were part of a multi-institution team to receive a 5-year, \$3.3 million macrosystems biology grant from the NSF for "Scale, Consumers and Lotic Ecosystem Rates: Centimeters to Continents."

■ **Krisztian Magori** published a paper, "Decelerating spread of West Nile Virus by percolation in a heterogeneous urban environment," in the journal *PLoS Computational Biology*. Coauthors included Associate Professor **John Drake** and Ph.D. student **Sarah Bowden**.

■ **J.P. Schmidt**, Ph.D. '06, was lead author on three papers. "Time since introduction, seed mass, and genome size predict successful invaders among the cultivated vascular plants of Hawaii," coauthored by Associate Professor **John Drake**, was published in *PLoS ONE* in 2011. "Two sides of the same coin: rare and pest plants," with Drake and Associate Research Scientist **Patrick Stephens**, was published in *Ecological Applications* in 2012. "Bioeconomic forecasting of invasive species by ecological syndrome," with Drake and Michael Springborn of the University of California, Davis, was published in *Ecosphere* in 2012.

■ **Daniel Streicker**, Ph.D. '11, was lead author of "Rates of viral evolution are linked to host geography in bats" published in *PLoS Pathogens* in May 2012, and "Ecological and anthropogenic drivers of rabies exposure in vampire bats: implications for transmission and control" published in *Proceedings of the Royal Society B* in June 2012. Research technician **Rene E. Condori** and Associate Dean **Sonia Altizer** were among the paper's coauthors.

## Post Doc News

## Faculty News

■ Associate Professor **Sonia Altizer** assumed the role of Associate Dean for Academic Affairs on July 1, 2012, taking over the post from Professor Ron Carroll.

■ Professor **Alan Covich** delivered the keynote address, “Sediments and Biodiversity: Bridging the Gap between Science and Policy,” at the 2011 European Sediment Network conference in Venice, Italy.

■ Associate Professor **John Drake** received the CURO Excellence in Undergraduate Research Mentoring Early Career Faculty Award at the UGA Honors Program’s annual CURO Symposium in April 2011 and the Sarah H. Moss Fellowship from the UGA Center for Teaching and Learning in 2012.

■ Associate Dean **Laurie Fowler** received the inaugural Sustainable UGA Outstanding Faculty Award in 2011.

■ A paper coauthored by Dean **John Gittleman** and Assistant Research Scientist **Patrick Stephens**, “The maximum rate of mammal evolution,” was published in the *Proceedings of the National Academy of Sciences* in January 2012.

■ Assistant Research Scientist **Richard Hall** published “Eating the competition speeds up invasions” in *Biology Letters* in October 2010 and “Intraguild predation in the presence of a shared natural enemy” in *Ecology* in February 2011. In November 2011 he was coauthor of “Metapopulation models for seasonally migratory animals” published in *Biology Letters*.

Associate Professor **Jeb Byers**, pictured with Ph.D. student **Carrie Keogh**, received the UGA Richard B. Russell Award for Excellence in Undergraduate Teaching in 2012. Byers was coauthor of “Asymmetric dispersal allows an upstream region to control population structure throughout a species’ range” published in the *Proceedings of the National Academy of Sciences* in September 2011. He was coauthor of “Caribbean Creep’ Chills Out: Climate Change and Marine Invasive Species” published in *PLoS ONE* in December 2011.

Photo credit: Paul Efland

■ Professor **Paul Hendrix** received the Lifetime Professional Achievement Award from the Soil Ecology Society in 2011.

■ Professor Emeritus **Carl Jordan** was named 2011 Conservationist of the Year by the Oconee River Soil & Water Conservation District. In January 2012, he received the Governor’s Agricultural Environmental Stewardship Award for the Northeast Georgia region.

■ Assistant Professor **Jacqueline Mohan** received a \$554,000 grant from the National Science Foundation in 2012 to help develop more accurate predictions about the impacts of climate change on forests. Mohan coauthored “Soil warming, carbon-nitrogen interactions, and forest carbon budgets,” which was published in the *Proceedings of the National Academy of Sciences* in 2011. She published an article, “Undergrowth and Overgrowth,” in the July/August 2011 issue of the magazine *Natural History*.

■ Assistant Professor **Andrew Park** received the John M. Bowen Award for Excellence in Animal/Biomedical Research from the UGA School of Veterinary Medicine in April 2011. Park holds a joint appointment in the SVM Department of Infectious Diseases. Park was also named a Lilly Teaching Fellow for 2011–2012.

■ DiscoverLife.org, an online interactive encyclopedia created by Associate Professor **John Pickering**, celebrated reaching

one billion hits in October 2011 with a day-long symposium and the launch of the Georgia Natural History Survey.

■ In September 2011, Meigs Professor **James W. Porter** was appointed to the International Scientific Advisory Board on Sea-Dumped Chemical Weapons of the International Dialogues on Underwater Munitions. The Board advises the Organization for the Prohibition of Chemical Weapons, which implements the United Nations Chemical Weapons Convention.

■ **O.E. (Gene) Rhodes** was appointed director of the Savannah River Ecology Laboratory in January 2012. He succeeds SREL interim directors **Ken McLeod**, SREL research scientist, and **Carl Bergmann**, assistant vice president for research and senior research scientist at the UGA Complex Carbohydrate Research Center.

■ Associate Professor **Amy Rosemond** received a \$254,231 macrosystems biology grant from the NSF as part of a 5-year, \$3.3 million multi-institution project, “Scale, Consumers and Lotic Ecosystem Rates: Centimeters to Continents,” in August 2011.

■ Assistant Professor **Nina Wurzburger** published a paper, “Molybdenum and phosphorus interact to constrain symbiotic nitrogen fixation in tropical forests,” in the journal *PLoS ONE* in March 2012.



## Professors Appointed to Emeritus Status



HENDRIX

Paul Hendrix was appointed Professor Emeritus upon his retirement in January 2012, after a distinguished 28-year career of research and teaching at UGA.

Hendrix's research has encompassed agroecology; the use of stable isotopes in soil ecology; earthworm ecology, with particular emphasis on invasive earthworms and their effects on soil structure and organic matter dynamics in wildland ecosystems; and the effects of severe fire on soil fauna. He is the author, coauthor, or editor of numerous influential papers and books, including nearly 100 papers in peer-reviewed journals, 23 book chapters, and seven textbooks.

Hendrix developed and taught courses in ecosystem ecology, soil biology, agroecology, and biogeography in the Odum School of Ecology and the Department of Crop and Soil Sciences in the College of Agriculture, twice receiving Ecology's Outstanding Teaching Award. He was major advisor for eight master's and seven doctoral students, supervised two postdoctoral associates and two visiting international scholars, and advised seventeen undergraduate research projects under the NSF Research Experiences for Undergraduates program.

The Soil Ecology Society recognized Hendrix with a Lifetime Professional Achievement Award in 2011 for enduring and outstanding contributions to scientific advancement, student mentoring, and service in the field of soil ecology.



PATTEN

Systems ecologist Bernard Patten retired in February 2012, and was appointed to emeritus status after almost 44 years at UGA.

He came to UGA in 1968, after four years at Oak Ridge National Laboratory and the University of Tennessee. Here, he and his students, postdocs, and faculty associates developed a formal system theory of the environment, and also initiated and pursued for a dozen years a systems ecology study of Okefenokee Swamp based on the emerging theoretical framework. The theory uses network mathematics to represent and analyze energy-matter flows and stocks in ecosystems.

Patten's publications include nearly 200 papers and ten books, including the four-volume *Systems Analysis and Simulation in Ecology*. He headed SCOPE/ICSU's program on wetlands and edited a comprehensive two-volume review of the status of the world's wetlands and shallow continental water bodies. Among his honors is the Prigogine Medal, awarded by the University of Siena, Italy, and Wessex Institute of Technology, UK. He says that his "favorite" achievements lie in other domains, however—once beating Ted Turner in a Flying Dutchman sailboat race, sailing third to the then-reigning Olympic gold medalists Melges and Bentsen in the 1966 Dutchman Midwinters, and instrument piloting his own aircraft around the country for some 15 years.

Besides teaching UGA students and scholars—he has graduated three master's and 28 doctoral students, and hosted seven postdocs—he has conducted many workshops and short courses in ecological modeling and systems ecology around the world. He was named Regents Professor in 1984 in recognition of distinguished and innovative scholarship.

Retirement will be in name only, he says, as his research and related activities continue, including completing his tome on *Holoecology*. A commemorative symposium is being planned for April 2013.

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## Staff News

■ Undergraduate Advisor **Misha Boyd** was named the UGA Outstanding Undergraduate Advisor for 2012 and received an Outstanding Advising Certificate of Merit from the National Academic Advising Association.

■ In October 2011 we bid a fond farewell to **Patsy Pittman**, who retired after more than 20 years as Ecology's beloved graduate advisor, and welcomed Katherine Adams to the position. Katherine, who is pursuing a Ph.D. in Adult Education, came to us from the School of Social Work.

■ **Katie Sheehan**, legal fellow at the River Basin Center, was elected member-at-large of the Environmental Law Section of the State Bar Association of Georgia for 2012.

■ Public Relations Coordinator **Beth Gavrilles** presented a talk, "Eugene Odum: Life, Legacy, and a Sense of Place," at the Huyck Preserve and Biological Research Station in Rensselaerville, NY, in July 2011. Eugene Odum was hired as the first resident biologist at the Huyck Preserve, his first position after receiving his Ph.D. in 1939.

# Thank you!

Dr. James Martin Affolter and  
 Dr. Catherine M. Pringle  
 Anonymous  
 Appointments at Five  
 Mr. Wilson G. and Ms. Sarah Gaines Barmeyer  
 Mr. Kevin H. Barnes and Ms. Sara K. Beresford  
 Dr. and Mrs. Gary W. Barrett  
 Mr. and Mrs. Craig Barrow III  
 Ms. Carolyn Renee Baughens  
 Ms. Rebecca Bell  
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 Ms. Nancy Danuser  
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 Ms. Debra K. Glidden  
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Associate Dean for  
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Associate Dean for  
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The University of Georgia is  
committed to principles of  
equal opportunity  
and affirmative action.



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## *Dear Alumni and Friends,*



**LEE SNELLING**  
Director of Development  
University of Georgia  
Odum School of Ecology

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It's been an incredible academic year in the Odum School of Ecology. Our students, faculty and staff have truly excelled in the classroom and beyond with the accolades that have been bestowed upon them. It goes to show that despite being the smallest school or college at UGA this isn't preventing us from having a great impact through our teaching, research, and service. The Odum School's success is also evident among our alumni. Dr. Karen Mabry, '01, recently received the NSF's prestigious Faculty Early Career Development (CAREER) award. Beth Shapiro, who received her bachelor's and master's degrees in ecology from UGA in 1999, was honored by the UGA Alumni Association as one of its "40 Under Forty" for 2011. We enjoy hearing about the success of our alumni, so please send along any recent accolades or exciting news.

As the Odum School continues to develop as a standalone school of ecology we look forward to having our alumni become more involved. We recently welcomed two of our alumni to the IDEA Board. Tim Carter, Ph.D. '06, and Jianguo "Jack" Liu, Ph.D. '92, joined the board this spring. In August, the Odum School hosted another alumni event at the annual Ecological Society of America conference in Portland, Oregon, where 16 Odum School faculty, students, and postdocs presented research and led sessions.

If you have any ideas for how alumni can better connect to the School please don't hesitate calling me at 706-542-6007 or emailing at [snelling@uga.edu](mailto:snelling@uga.edu).

We remain grateful to all of our alumni and friends who support the Odum School in so many different ways. Whether it's providing mentoring support for our current students or generous philanthropic donations, our continued success is possible because of you!

