



EcoVoice



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ENVIRONMENTAL FILM FEST OCT. 23-26

The UGA Odum School of Ecology will present a 4-day environmental film festival at Ciné in downtown Athens Oct. 23-26. Open to the public, the event will feature world-class environmental films, as well as children's programming, Q&A sessions with film directors and more.

The event will kick off Thursday evening with *Encounters at the End of the World*, one of ten feature-length films included in the festival and offers a breathtaking perspective of life in Antarctica. Local Athens artist Alan Campbell, who has traveled to Antarctica many times over the last 20 years, will be present to discuss the film.

Saturday evening will be geared toward the local sustainable food movement. A selection of feature films will be shown that evening including *Tableland*, winner of the Best Feature Award at the 2008 New York City Food Film Festival.

In addition, the film festival will feature two 2008 Sundance Film Festival winners, as well as films of particular local interest, including *Carving Up Oconee: A Rural County Fights for its Future*.

"Two of our most visually stunning and unforgettable films are about ocean creatures," festival managing director Sara Beresford said. "One is *Sharkwater*, about the mass exploitation of sharks and one man's journey to document the situation."

Festival events will begin at noon each day, except for opening night. The closing ceremonies on Sunday evening will feature winners of the EcoFocus Short Film Competition.

Individual screening tickets are \$8 for adults and \$5 for students and seniors. More detailed information about the festival can be found at www.ecofocusfilmfest.org.



Notes From Dean John Gittleman



The lifeblood of any new institution are ideas – fresh approaches, perspectives, concepts and solutions. In the Odum School, we're facing a revolution of exciting ideas brought on by the arrival of faculty hired in the past year:

James ("Jeb") Byers, who recently arrived from the University of New Hampshire, is approaching a number of ecological problems from different interdisciplinary angles, including: what are impacts of non-native species on native marine communities and what are effective ways to prevent contamination of mudflats and salt marshes? Clearly, one of the threads running throughout Jeb's work is that solutions to these problems will have practical applications to the Georgia coastline.

Andrew Park received his doctorate from the University of Cambridge and is supported through the Board of Regents initiative to link together UGA researchers that are collectively studying disease. Andrew is developing exciting models for how to understand the ways to effectively immunize people for new emerging diseases. Research has shown that most diseases originate from ecological surroundings in plants and animals; therefore, the Odum School is at the forefront of solutions to where and how disease will be managed.

Rich Shefferson, who arrived from the University of Virginia, is an expert on how plants reproduce. Rich is asking both ecological and evolutionary questions about when plants stop reproducing, something that is a mystery in understanding perennials that keep coming back year after year. Rich is looking at whether there are specific genetic switches and/or environmental stresses that allow some plants to live longer and produce for so long.

Of course, new and bold ideas are ever-present from our students as well. One of the latest is the recycling effort that has taken UGA gameday by storm (see story on p. 2).

Like Margaret Mead said, "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." By watching our faculty and students, it is clear that at the Odum School, we are indeed committed to working together for a more sustainable future for our planet.

ECOLOGY UNDERGRADS HELP PROVIDE GAME DAY RECYCLING

A group of students spearheaded by Odum School of Ecology undergraduates have started a massive recycling initiative for UGA home football games. The entirely student volunteer-based effort has collected over 2000 pounds worth of bottles and cans and is continuously seeking to expand.

"We have collected well over a thousand pounds of recycled materials with student volunteers who spend 12 hour days," said B.S./M.S. ecology student Christina Faust. "We physically haul around big bags full of cans and bottles, then dump out the liquid and often cut our hands on glass in the process. Even so, it's worth it."



Students sort through cans collected on game day. Photo by Mark Milby.

For the previous two years, Athens-Clarke County (ACC) provided limited game day recycling as a pilot project. At the completion of the project, the Ecology Club, began providing the manpower for the recycling effort with help from ACC in the form of providing recycling bins and pickup. The group has also received support from the UGA Physical Plant. And to increase their efforts, the Ecology Club partnered with the UGA chapter of Habitat for Humanity and Go Green Alliance.

The initiative is based in Myers Quad and covers a large portion of South Campus. Beginning at 7:30 a.m. on game days, volunteers clad in neon yellow t-shirts collect cans and bottles from tailgaters. A big push begins 1.5 hours before kickoff with collection moving to stadium gates that results in more recyclables than the group can handle.

"We have received so much positive feedback from tailgaters and alumni, and our goal is to see game day recycling continue to expand," said junior ecology major Mark Milby. "We are doing as much as we possibly can, but this is not a long-term solution. We hope that our efforts will result in a university-wide initiative, which will help provide enough labor to cover the entire campus."

Besides helping keep campus clean, the Ecology Club has donated over 300 pounds of scrap aluminum to Habitat for Humanity to be turned into cash.

"Our goal is to collect several thousand pounds of recycled materials this football season," said Milby. "We have a commitment to sustainability and recycling is just the first step."

For more information, please visit www.ecology.uga.edu/recycling or email ugaecologyclub@gmail.com

A Dream Realized: Fundación Maquipucuna

It all started some 20 years ago, with two naïve kids, a trip to Ecuador and a bold dream.

When Rebeca Justicia (Ph.D. Ecology, '07) took a trip to her home country the summer after her sophomore year, she was shocked to see the devastating effects of deforestation. She and her now-husband Rodrigo Ontaneda made a pact that they would do something to help their native land.



The Maquipucuna Reserve (above) is located in the heart of Ecuador's cloud forest. Photo by Marty Cooper.

Fate intervened, as they learned of 6,000 acres of foreclosed land available for \$25,000. In 1988, while visiting a variety of conservation organizations in Washington, DC, they struck gold with a grant from the Tom and Clara Butler Foundation that enabled them to purchase the land.

"The trust that the Butler Foundation placed in us was necessary to our success," said Justicia. "Because of this grant, we were able to follow our ambitious dreams to create the first private reserve in Ecuador."

Two decades later, the Maquipucuna Reserve now has 13,500 acres where 2,000 guests annually stay at an open-air lodge crafted with indigenous bamboo. Visitors have the chance to

enjoy viewing 4 percent of the world's bird diversity and over 1,900 species of plants. Due to the continuous efforts of the foundation to purchase endangered forests, the protected land has more than doubled since the foundation's first purchase. Guides for ecotourism are area locals.

"It was very important to us to do more than protect the area physically," Justicia explained. "We have been able to bring ecotourism into various communities, which has created at least 50 jobs for locals with hundreds reaping the benefits of a more self-sustaining community."

Fundación Maquipucuna prides itself on 20 years of success in protecting biodiversity and reducing poverty in Ecuador. In addition to ecotourism, other ventures contributing to their mission include training residents to grow and sell gourmet coffee and cacao, along with providing community education on topics such as home-building and craft-making with native bamboo.

In 2000, the foundation received a grant from the Global Environmental Facility through the World Bank that helped greatly expand Maquipucuna's reach. With this grant, the foundation began an environmental education program in cooperation with the Odum School of Ecology, the Georgia Museum of Natural History and the State Botanical Garden of Georgia. Nearly a dozen UGA students have completed their graduate research at the reserve with financial support from Maquipucuna grants.

"Recently, we also received a grant from the MacArthur Foundation that will enable us to compare high resolution photography from 1990 to today to see the impact our work has had in protecting and preserving the land," Justicia says. "If a program is not meeting our major goals – sustainability, social responsibility and valuing

biodiversity – then we will readjust."

Justicia said that the foundation's biggest accomplishment was establishing the Chocó Andean Corridor, where 5 million acres of ecosystems are being protected from the Tropical Andes to the Chocó.



Justicia (right) and major professor Ron Carroll have worked together since the late 1990s on foundation projects including helping develop better organic coffee production.

Photo by Peter Frey.

When asked if would do it all over again, Justicia laughs.

"Rodrigo and I were young and bold and took huge risks in getting to where we are today," said Justicia. "A lot of things had to fall into place. It was a huge leap of faith and we were fortunate to receive all the support we have had."

For more information, please visit www.maqui.org, www.oursharedforests.org and www.1000facescoffee.com.



MOVERS AND SHAKERS

FACULTY

- Laurie Fowler, co-director of the River Basin Center, has been named a finalist for Campus Compact's 2008 Thomas Ehrlich Faculty Award for Service-Learning.
- Discover Life, located at www.discoverlife.org, is the passion of faculty member John Pickering. He serves as advisor of the site that has catalogued and photographed 1,216,954 species and has over 240,000 visitors per month.

GRADUATE STUDENTS

- Ph.D. students Scott Connelly and Will Duncan were two of twenty UGA Graduate School Teaching Portfolio Awardees.
- Ph.D. student Nicole Gottdenker was selected as the winner of the 2008 Wildlife Disease Association Graduate Student Scholarship award.
- A pioneering study on the effects of nitrate, a form of nitrogen, in streams was recently published in *Nature*, with a team of 31 researchers including major

contributions by Ph.D. student Ashley M. Helton, professor emeritus Judith L. Meyer and adjunct faculty member Geoffrey Poole. The study demonstrated how varying amounts of nitrate are biologically processed in streams.

- Graduate students Dusty Kemp, Jennifer McCabe-Reyonds, Maia Mukherjee and Meredith Meyers presented at the 11th International Coral Reef Symposium.
- Ph.D. student Kathleen Rugel was awarded the Richard A. Herbert Memorial Scholarship. She plans to use this leadership award for groundwater/surface water research.

POSTDOCS

- Rebecca Bartel, who received her Ph.D. at North Carolina State University, received and NIH Ruth Kirschstein Postdoctoral Fellowship.
- Barbara Han, a recent Ph.D. graduate of Oregon State university, received a National Science Foundation Bioinformatics Postdoctoral Fellowship.
- Mike Marshall was recently featured in *Caribbean Beat* magazine for his

research on at Simla, a tropical research station in Trinidad, on small invertebrates.

ALUMNI

- JP Drury ('07) and Lori Shapiro ('07) received NSF Graduate Fellowships.
- Scott Hitch ('96), a partner in Balch & Bingham LLP, earned the certification of Leadership in Energy and Environmental Design Accredited Professional (LEED AP) by the U.S. Green Building Council (USGBC) and the Green Building Certification Institute (GBCI). He is one of only 55 in the U.S.
- Jeff Lovich ('90) received a Fulbright Senior Specialists Award to teach at Cadi Ayyad University in Marrakech, Morocco.
- Larkin Powell ('98) has been named a Fulbright Scholar. He and his family will spend 11 months in Namibia, Africa during 2009 through a lecture/research award.

Please keep us informed of your exciting news! Email anisaj@uga.edu with your information.



RED AND BLACK BUTTERFLIES FROM COSTA RICA

UGA President Michael F. Adams (left) was recently presented with red and black butterflies as a token of appreciation for his part in creation of UGA's Costa Rica campus.

The gift was presented by James Porter (right), Meigs Professor in the Odum School of Ecology and Quint Newcomer, Director of UGA Costa Rica.

Photo by Peter Frey.

**ANNUAL AWARDS BANQUET WINNERS
ANNOUNCED**



The Odum School's Annual Awards Banquet was held in April 2008. Below are the winners:

- Instructor of the Year:** *Sonia Altizer*
- Employee of the Year:** *Elaine Dunbar*
- UGA Outstanding Teaching Assistant Awards:**
Dawn Drumtra and Cynthia Tant
- Distinguished Graduate Student Teaching Award:**
Tammy Andros and Cynthia Tant
- UGA Dissertation Completion Award:** *Nicole Gottdenker and Cynthia Tant*
- Robert A. Sheldon Memorial Travel Award:** *Jane Shevtsov and Jamie Winternitz*
- Dean Lindholm Memorial Travel Award:** *Jamie Winternitz*
- Environmental Policy Award:** *Kelly Siragusa*
- Best Student Paper - Basic/Theoretical:** *Brian Todd*
- Best Student Paper - Applied:** *John Kominoski*
- Josh Laerm Memorial Outstanding Ecology Undergraduate Award:** *Andrew Durso*

- Richardson-Golley Undergraduate Citizenship Award:** *Dale Broder and Jean Chi*
- Solitary Glove Award:** *Valerie Peters*
- Purple Heart Award:** *Ron Carroll*
- Dean's Award:** *Anisa Jimenez and Brenda Mattox*
- Spring Fling King and Queen:** *John Drake and Anisa Jimenez*



Graduate Coordinator Ron Carroll (left) was presented the Purple Heart Award by Ashley Standbridge, on behalf of the graduate students. This award is voted on by the graduate students to recognize a member of the faculty or staff who has gone "above and beyond the call of duty."

Photo by Jeremy Sanderlin.

**ODUM SCHOOL LAUNCHES
NEW WEB SITE AND LOGO!**

www.ecology.uga.edu



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ALUMNI!**

please keep your information updated with the UGA Alumni Association at:
<http://alumni.uga.edu/update>

AND, if you are not on the ecoalum listserv, please contact:
anisaj@uga.edu
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Organic farming good for environment — and pocketbook

Farmers in the Georgia Piedmont face a variety of challenges, from the heat and humidity of a subtropical climate to intense pest pressures and perhaps the most challenging — highly degraded soils that are legacies of previous land uses. The work of the Agroecology Laboratory at the Odum School of Ecology focuses on using ecological approaches to agriculture that addresses this soil condition.

“Centuries of extensive tillage to produce crops like tobacco and cotton have caused much of our native topsoil to be washed into rivers,” said recent Odum School Ph.D. graduate Krista Jacobsen. “Many farmers in the Southeast inherit these degraded soils and it is important to develop and study farming practices that can restore soil and allow it to be farmed profitably at the same time.”

And that’s exactly what Jacobsen has done with her development of enterprise budgets for a variety of organic crops. Enterprise budgets are economic decision-making tools commonly used by farmers across the country to estimate profitability. However, these budgets are not widely available for organic production and only one set of budgets for a limited number of crops had been developed for the Southeastern US. Now, Jacobsen has added budgets for okra, hot peppers and a corn/winter squash mix — providing organic farmers with one

of the only organic conservation tillage budgets in the country.

“Conservation tillage is the practice of reducing tillage on farming systems and leaving at least 30 percent of crop residues on the soil surface,” explained Jacobsen. “My research demonstrates that using this practice outperforms a conventional system that uses regular tillage and chemical fertilizers in degraded soils like those of the Georgia Piedmont.”



Jacobsen (above) at Spring Valley EcoFarms

Photo by Carl Jordan.

And furthermore, according to Jacobsen’s advisor Carl Jordan, there is overwhelming evidence that organic agriculture is more sustainable than industrial agriculture. Organic ag-

riculture improves the soil, reduces pollution from fertilizers and helps agriculture-friendly insects. The big question, therefore, is determining if organic agriculture can be economically competitive.

“Krista’s research at Spring Valley EcoFarms in Athens has shown that while yield from organically managed fields is often slightly less than from industrial cropland, energy-intensive inputs such as nitrogen fertilizer, pesticides and tractor fuel is much less,” said Jordan, Senior Research Associate at the Odum School of Ecology. “As a result, input costs are less and profit margins can be higher. Low energy costs are especially important in these days of surging petroleum prices.”

“I think our results show that this blend of common organic farming techniques, sustainable agricultural practices and some new experimental techniques can be ecologically restorative and economically viable,” said Jacobsen. “To me, this kind of blend of stewardship, ecological systems thinking and practical economic considerations is exciting not only for agroecological research, but also for the future of food.”

For more information on Spring Valley EcoFarms, please visit <http://www.springvalleyecofarms.org>

RBC RECEIVES GRANT TO ADDRESS GLOBAL CLIMATE CHANGE IN COASTAL GA

A team at the River Basin Center (RBC) was recently awarded a \$213,791 coastal incentive grant from the Georgia Department of Natural Resources Coastal Resources Division. The grant will enable important studies that will address global climate change and its disproportionate affect on coastal communities.

“Coastal areas are widely seen as most vulnerable to environmental consequences of climate change due to their exposure to sea level rise, coastal erosion and increased flood risk,” explained project manager Tim Carter, urban ecologist.

The 3-year project will comprehensively evaluate sea level rise scenarios in Georgia and relate these scenarios to areas of future growth. Information will be disseminated using cutting-edge spatial modeling software and an extensive outreach campaign.

RBC staff and graduate students will research and develop strategies for protecting high priority habitat in areas most at risk from sea level rise, flooding and development pressure.

The UGA Center for Remote Sensing and Mapping Science is working with the GIS segment of the project.

“As populations continue to expand in coastal Georgia, it becomes increasingly important to effectively communicate the ecological and economic risks associated with sea level rise,” said Carter.

To accomplish key outreach initiatives, the RBC has partnered with the Georgia Conservancy and the local government of Glynn County. Matching funds to help the efforts of the team were also granted from UGA faculty and Georgia Conservancy staff.

“Our plan is to offer recommendations for innovative development practices that will target areas of landscape vulnerable to sea level rise, storm surge and development pressure,” said Carter. “What we want people to understand is that in vulnerable areas, proper design, planning and policy can protect these sensitive coastal ecosystems.”

Breaking News

MEYER/HELFSMAN RETIREMENT SYMPOSIUM HONORS LIFETIME CAREER ACHIEVEMENT

The Odum School of Ecology hosted "Aquatic Conservation Science: Merging Theory and Application" on October 3-4, 2008. The symposium was held in honor of the careers of emeritus faculty members Judith L. Meyer and Gene Helfman.

The event featured individual talks and a panel discussion and included internationally renowned speakers on aquatic conservation science. Speakers represented areas of expertise including ecosystem and fisheries science, aquatic conservation policy and water resource management.

"The professional legacies of Gene and Judy are wide and deep," said Laurie Fowler, co-director of the Odum School's River Basin Center. "Gene has written the world's leading textbook on the conserva-

tion of fishes. His involvement in endangered species has resulted in both the advancement of science and much greater protection. And besides being an internationally recognized aquatic scientist, Judy has applied her expertise to the better development of federal, state and local policies through leadership on boards ranging from those established by the National Science Foundation, the U.S. EPA and much more."

For more information on the event, please visit <http://www.rivercenter.uga.edu/helf-meyer.htm>

UGA HELPS ATLANTA REAL ESTATE DEVELOPER WITH SUSTAINABLE DEVELOPMENT METHODS

A team from the University of Georgia recently received a grant from IDI to develop more energy-efficient

and environmentally sustainable practices for the Atlanta-based company.

IDI is a real estate company focused on the development of distribution centers around the U.S. The team, including Odum School faculty Laurie Fowler and M.S. CESD student Tammy Andros, will help the company's proposed Jefferson, GA location have more efficient water use, environmentally sustainable landscape, energy reduction and more.

ECOFOCUS FILM FESTIVAL RECEIVES GRANT

EcoFocus Managing Director Sara Beresford obtained \$25,000 from The Lyndhurst Foundation, based in Chatanooga, TN. This grant will help sponsor the EcoFocus film festival. For more information on that event, please see page 1.



Photo by Tim Carter.

GREEN BUILDING UPDATE

The Odum School has taken the next step towards a green building by selecting nationally-renowned architectural firm BNIM. On Sept. 8-10, Dean John Gittleman, River Basin Center Co-Director Laurie Fowler and Urban Ecologist Tim Carter toured green buildings designed by the firm, including the National Renewable Energy Laboratory (left) in Golden, Colorado. This trip was the next step after the Odum School received a \$180,000 grant from the Dobbs Foundation in February 2008 for a conceptual plan. The next phase of the project will be a design charrette, in which the architects will come up with potential plans for the green building.

And according to green building committee chair Laurie Fowler, "We have hired the world's leading experts in designing green buildings and are honored by their commitment to our project. We look forward to working closely with our students to design a building that is a living laboratory for sustainable water, energy and other systems. Our goal is that this building provide lessons to school children across the state, to alumnus who come back for football games, as well as for the world's scientific community."

DONOR PROFILE: Rebecca Bell



Rebecca Bell has been part of the Odum School family for almost 40 years. She has nurtured countless UGA Ecology students, their projects, and even

their careers. Rebecca makes an annual gift to the Ecology Fund, which is the backbone of support for all Odum School programs. In her own words, this is why Bell supports the Odum School.

"I have been involved for several decades with Dr. James Richardson at the Odum School of Ecology. Projects have included the

Georgia Sea Turtle Cooperative, Rainforestry, Inc., the Little Cumberland Island Loggerhead Sea Turtle Project and the Jumby Bay Hawksbill Research Project. It has been my great pleasure to give to the Odum School of Ecology in support of the undergraduates in Ecology; they are an exciting group of young scientists with whom to work. I have enjoyed reading about the experiences of the students who have visited Selvatica, the wilderness rainforest preserve with which I am involved, and I have sensed the excitement in these students that has derived from their learning experiences. I have been involved in hiring many students and recent graduates of the School of Ecology to work on the Little Cumberland Loggerhead Turtle Project and the Jumby Bay

Hawksbill Project over the years. In fact, one recent graduate, Ben Morrison, has just completed two years of sea turtle research on Little Cumberland Island, and he has used this experience to move on to a new environmental position on Little St. Simon's Island. It is deeply satisfying for me to follow the development of such student careers and to feel an integral part of the system."

If you are interested in making a gift to the Odum School to benefit its academic programs, general fund or green building, please contact Elisabeth Butler at ehbult@uga.edu or (706) 542-6007. You can also visit our web site at: www.ecology.uga.edu/giving.

Text by Anisa S. Jimenez, unless otherwise noted. Contact: anisaj@uga.edu



140 East Green Street
Athens, GA 30602-2202

(706) 542-2968
Fax (706) 542-4819

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