



EcoVoice



a publication of the



School of Ecology
The University of Georgia

Spring/Summer 2008
Vol. 1, No. 1

ecology.uga.edu

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*Design and text by Anisa S. Jimenez, unless
otherwise noted.*



Inaugural members publicize the first meeting.

ECOLOGY CLUB BRINGS SENSE OF COMMUNITY TO UNDERGRADS

When Odum School senior Dale Broder returned to Athens in August after a year studying abroad, she realized that she felt disconnected. But rather than seeking out an ecology group for herself, she decided she would do something to help ecology undergraduates as a whole.

"I saw that there was a need to bring the undergraduate community together," said Broder. "And the Ecology Club has definitely accomplished that."

After talking with Undergraduate Coordinator Dr. Jim Richardson, Broder and fellow student Jean Chi decided to make the club a reality. Broder also noted that support from Dean John Gittleman has greatly helped the club's success.

"The energy coming from our undergrads through the Ecology Club is the best, most exciting that I have ever seen, at least in the ten years that I have been involved with undergraduate program," Richardson. "The next generation is stepping up to the environmental plate and I consider myself privileged to be here to see it happening."

The first event was a fall 2007 retreat at the Odum Property, complete with a nature hike and live saxophone music by senior Elijah Carter.

UNDERGRADUATE COMMUNITY continued on page 2



Notes From Dean John Gittleman



Ecological issues will define the 21st century. New ecological science is needed on our crowded planet to protect our environment, to ensure our health and to provide sufficient water and food for humanity. The Odum School of Ecology, the first standalone college dedicated to the science of ecology, is ready to face these challenges. We will adhere to some key principles and focus on problems at multiple levels by bringing together scientific and public issues at local, regional and global scales.

From the early days of the Institute of Ecology and pioneering work of Eugene Odum, the University of Georgia has always been a leader in ecology. Building on this history, the Odum School of Ecology is uniquely positioned to create an ecology of the future.

We are a small School with big ideas. Structurally, the Odum School will be a unit without borders, looking outward to collaborative, synthetic ecology as necessary to answer important questions.

Education and outreach will be at the core of measuring our success. UGA has an opportunity and obligation to the citizens of Georgia to deliver answers and guidelines to everyday ecological and environmental problems. A fundamental goal is to show that the way we do science is interactive and working toward a sustainable model. This will be reflected in one of our goals to work toward a new green building that will showcase the best science and education of ecology in the world.

As we often feel bombarded by ecological problems it's important to recognize that an "eco fatigue" can set in, a feeling that these issues are overwhelming. We need to hold on to the thinking that collectively we will solve these problems – the whole is greater than the sum of its parts.

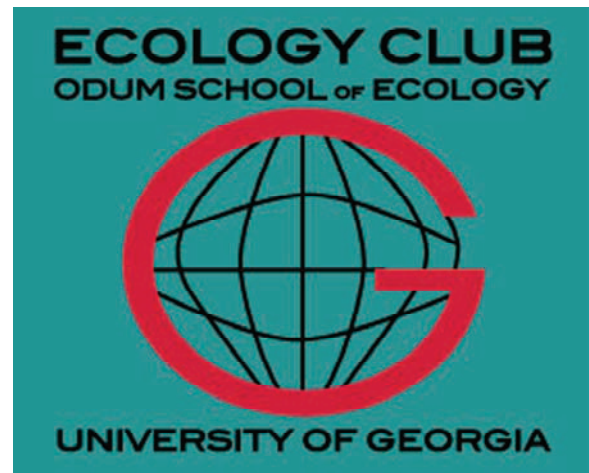
And we need to have some fun along the way. Music, film and art will be part of what we do in the Odum School, as shown in our partnering with Athens theatre Ciné in hosting environmental film festivals. If you are interested in being a part of these exciting events, please visit <http://www.ecology.uga.edu/ecofilmfest.htm>

We all are very excited about this opportunity. As Dean, I have faith in ourselves to do something great here, embrace the spirit of experimentation and our hope for the future!

UNDERGRAD COMMUNITY, continued

Meetings are held once a month and often feature a guest speaker. Associate Professor John Pickering recently spoke to the group about "The Goldenrod Challenge," whereby participants seek to photograph the most species of insects, spiders and other arthropods on goldenrods within a county. Several Ecology Club members were up to the challenge.

Broder said that she has been struck by how much people are willing to get involved and help. "Although most members of the club are active in several organizations, everyone really pitches in to make this a success."



In January, a Sustainability Forum was held where several UGA student organizations came together for a dinner and open discussion on how to improve sustainability at UGA. Organized by Andrew Durso and Christina Faust, the ultimate goal of the meeting was to create a prioritized document with clear objectives to be presented to President Michael Adams.

Recently, the club enjoyed a weekend in Savannah and the surrounding areas. This was a clear choice, given the group's three main focus areas – community, outreach and appreciating the environment.

And so, this is just the beginning for a new generation of ecologists. From working to improve campus sustainability to enjoying nature hikes, the Ecology Club has created a cohesive undergraduate unit unlike any other.

For more information on the Ecology Club, please email ugaecologyclub@gmail.com.

For more information on The Goldenrod Challenge, please see <http://www.discoverlife.org/goldenrod/>

The Examined Life: Remembering Frank B. Golley

In the fourth century, Socrates remarked that “The unexamined life is not worth living.” And Frank B. Golley – professor, mentor, boat-builder, artist, musician, leatherworker, gardener and friend – was one of those great Renaissance men who lived life to the fullest.

On October 5-6, 2007, the Odum School of Ecology hosted a symposium honoring the life of Dr. Golley. The event began with a Philosopher’s Walk led by Peter Hartel on Friday afternoon, followed by a Courtyard reception. A panel discussion moderated by Rebecca Sharitz of the Savannah River Ecology Laboratory took place Saturday morning. Panelists each brought a unique perspective to the discussion. These included Elizabeth Blood (’81), Betty Jean Craige, Carl Jordan, John Leffler (’77) and Vince Nabholz (’78). After a luncheon, a slide show was presented, followed by an open discussion and reflection on Dr. Golley’s life.

The Odum School Lobby was filled with photos and mementos. Numerous publications filled the cases. However, these could not come close to truly representing the approximately 40 books and chapters and 150 technical papers Dr. Golley penned in his life.

His career spanned over four decades at UGA and included him being director at the Savannah River Ecology Laboratory from 1962-1967 and later director of the Institute of Ecology from 1984-1987. Dr. Golley was instrumental in the design of the institute, and worked to ensure that it created an environment of openness between faculty, staff and students.



“I see the future not as a time of trouble, not as a time of fear or concern. I see it as a great opportunity for us. And our problem is to enrich the concept of community and to make it more effective and to take advantage of our uniqueness and this particular time.”

-Frank B. Golley

Dr. Golley’s spirit is still felt in the hallways of the Odum School. His love of academia itself left a lasting impression. Always a student of the world, he had enrolled in a course

in recent years to learn more about one of his favorite authors, Vladimir Nabokov.

His accolades are numerous, his reputation untarnished. He served in a wide variety of professional positions, including being president of the International Association of Ecology, the Ecological Society of America and the International Society of Tropical Ecology. In addition, he had served on the Council of the Smithsonian Institution, the National Institute of Ecology and the Organization for Tropical Studies. He was on the committee to establish the State Botanical Garden of Georgia and served as its interim director. Dr. Golley was also the founder and first editor of the *Journal of Landscape Ecology*.

While Dr. Golley retired from UGA in 2000, he never stopped being a constant presence and influence on the institute. He was concerned with the evolution of academia and the sustainability and preservation of the environment. His loss leaves a void for us all, but we look to his example to give us guidance for the future.

Thank you, Dr. Golley.



MOVERS AND SHAKERS

FACULTY

•Odum Professor Gary Barrett was the recipient of a Lifetime Achievement Award presented at the annual banquet of the Institute of Environmental Sciences (IES) held at Miami University of Ohio. Barrett was the founder of the IES in 1970.

•Professor Alan Covich gave the Presidential Address at the Ecological Society of America Meeting in San Jose, CA on "The role of ecological research in the age of globalization."

•Assistant Professor John Drake was awarded over \$500K to study West Nile virus dynamics in New York City. *See more on page 5.*

•Assistant Professor Jacqueline Mohan is part of a research team that has been awarded a \$2.2 million grant funded by the Department of Energy to study eastern temperate tree species responses to climate warming.

•Professor Whit Gibbons received the 2007 John Behler Turtle Conservation Award, a major annual award to honor leadership and excellence in the field of turtle and tortoise conservation.

•Professor James Porter was presented with a Student Government Association Award for outstanding commitment to students at UGA.

GRADUATE STUDENTS

•Ph.D. student Will Duncan has been named one of fifteen Teaching Assistant Mentors for 2007-08.

•Ph.D. student Ashley Helton was recently published in *Nature* for her nitrate research, along with 30 other aquatic scientists including professor emerita Judy Meyer.

•Working in conjunction with graduate students from the Warnell School of Forestry and Natural Resources, several "Ecograds" helped found the Georgia Chapter of the Society of Conservation Biology. M.S. CESD student Danny O'Brien currently serves as President and Ph.D. student Tyler Kartzinell as Vice-President.

•Ph.D. student Chip Small received an EPA STAR Fellowship to study the potential importance of insect emergence as a biogeochemical pathway in streams.

•M.S. CESD student Kelly Siragusa served as student coordinator of Focus the Nation at UGA, a national teach-in on global climate change solutions. *See more below.*

•Ph.D. student Daniel Streiker was awarded a National Geographic Young Explorers Grant.

ALUMNI

• Scott Hitch ('96) is a partner with Balch & Bingham LLP in Atlanta. His practice involves a wide range of environmental and land use issues.

• Shelly Lakly ('99) has been named as The Nature Conservancy's new Georgia state director.

• Beth Shapiro ('99) was profiled in *Smithsonian* magazine for being one of America's Young Innovators in the Arts and Sciences. Shapiro has determined a method to isolate dodo DNA.

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

SPOTLIGHT: FOCUS THE NATION

Thanks to Odum School of Ecology graduate students, UGA participated in Focus the Nation, a national teach-in on global climate change solutions. The event was held January 30-31 with seminar highlights including a lecture by *Ecology of a Cracker Childhood* author Janisse Ray and the Charter Lecture presented by National Geographic executive editor Dennis Dimick. Jim Porter of the Odum School also presented a talk on challenges and solutions to global climate change. The event concluded with a rally featuring Athens mayor Heidi Davison.

In addition, students voted on the top five climate change solutions that will be compiled with all the other votes from universities around the country. Focus the Nation Eban Goodstein will use the votes to ask Congress for a solution.

Said student coordinator Kelly Siragusa, "This was an unprecedented opportunity for students and communities from across the country to learn about, discuss and voice opinions about the solutions to global climate change that will have major implications for the fate of our planet."



Odum School Master's student Kelly Siragusa served as student coordinator for the entire UGA portion of the national event.

14TH ANNUAL GRADUATE STUDENT SYMPOSIUM WINNERS ANNOUNCED



Senior Halley Ross (r) won an Outstanding Poster Presentation Award. Jim Richardson (also pictured) and Ph.D. student Will Duncan contributed to the award-winning project.

Graduate students, led by co-chairs Ching-Yu Huang and Chip Small, did an outstanding job organizing GSS. This year's winners are:

First Place Outstanding Doctoral Presentation Award
Andrew Mehring: "Floodplain forests and oxygen demand in blackwater streams: Differential effects of leaf litter species"

Second Place Outstanding Doctoral Presentation Award
Chip Small: "Elemental imbalance between consumers and their food sources along a natural phosphorus gradient in neotropical streams"

Third Place Outstanding Doctoral Presentation Award
John Davis: "Long-term nutrient enrichment of a detrital-based system leads to a trophic dead-end"

Outstanding Master's Presentation Award
Christina Faust: "Influence of bivalves on the persistence of Avian Influenza virus in water"

Outstanding Poster Presentation Awards
Andrew Durso and Jonathan Pahlas: "Cataloging biodiversity: filling in the gaps for coastal Ecuadorian Herpetofauna"

Halley Ross: "Small reservoirs have big impacts on sediment size and biological assemblages of downstream habitats"

DRAKE RECEIVES GRANT TO STUDY WEST NILE VIRUS DYNAMICS IN NYC

Although West Nile virus has been widely studied, there is still little known about how the ecology of mosquito-borne diseases differs between urban and rural areas. Assistant professor John Drake will shed light on these differences with a recently awarded \$578,619 grant from the National Science Foundation.

Drake has partnered with the New York Department of Health and Mental Hygiene to obtain data on the prevalence of infected mosquitoes, birds and humans. These data will be used to develop computer models to study differences between West Nile virus in urban versus rural environments. Other goals of the three-year study are to present recommendations for improving New York City's current mosquito control strategies, and to provide ecologically-based risk maps and calibrated metrics for early warning of disease outbreak. Drake said this would be the start of a long-term study.

"In America, we have eliminated malaria and we don't have a serious problem with dengue fever," said Drake. "Vector-borne diseases were thought to be a minor issue for the developed world. West Nile virus' emergence has changed that."

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

ORDER YOUR ODUM SCHOOL TOTE BAG TODAY!

Made in the USA out of 100% organic cotton, the Odum School logo tote bag is a purchase you can feel good about! The totes are khaki with the logo in green and black.

Totes are \$15 each for pick-up, \$20 each if you need it mailed to you. To order, please mail a check payable to the Odum School of Ecology to: Anisa Jimenez, UGA Ecology Building, 140 East Green St., Athens, GA 30602. Make sure to include your email address, quantity desired and mailing information.

Questions? Feel free to email anisaj@uga.edu.

Emerging Infectious Diseases Are On The Rise - Next Target "Hotspot" Predicted

It's not just your imagination. Providing the first-ever definitive proof, a team of scientists has shown that emerging infectious diseases such as HIV, Severe Acute Respiratory Syndrome (SARS), West Nile virus and Ebola are indeed on the rise. The team including Odum School of Ecology dean John Gittleman and scientists from the Consortium for Conservation Medicine, the Institute of Zoology (London) and Columbia University recently published their findings in leading scientific journal *Nature*.

By analyzing 335 incidents of previous disease emergence beginning in 1940, the study has determined that zoonoses – diseases that originate in animals – are the current and most important threat in causing new diseases to emerge. And most of these originated in wildlife. Antibiotic drug resistance has been cited as another culprit.

But this team did not stop with determining the causes of emerging infectious diseases; they took it a step further. To help predict and prevent future attacks, sophisticated computer models were used to help design a global map of Emerging Disease Hotspots.

"This is a seminal moment in how we study emerging diseases," said Dr. Gittleman, who developed the approach used in analyzing the global database. "Our study has shown that bringing ecological sciences and public health together

can advance the field in a dramatic way."

Over the last three decades, billions of research dollars were unsuccessfully spent to try and explain the seemingly random patterns of emergence and spread. Finally, this research gives the first insight about where future outbreaks may occur – and next up is likely the Tropics, a region rich in wildlife species and under increasing human pressure.

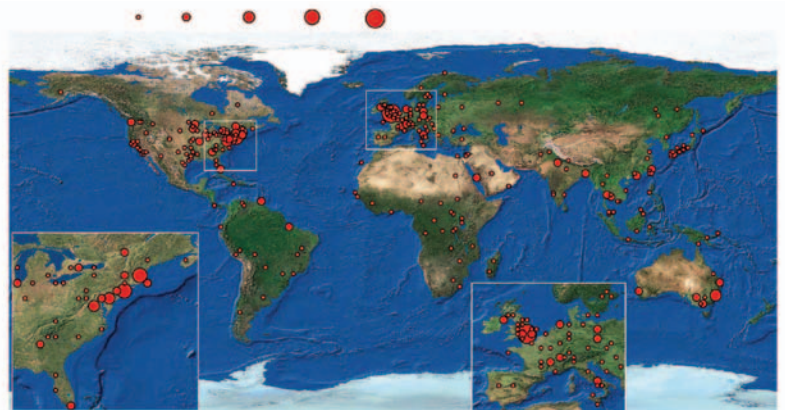
Emerging diseases have caused devastating effects internationally with millions infected and billions spent. Some diseases have become pandemic, spreading from one continent to another causing massive mortality rates and affecting global economies and livelihoods.

"This work by John and his collaborators is absolutely first rate, as evidenced by its publication in one of the world's foremost scientific journals," said Vice President for Research David Lee. "It brings novel insights and perspec-

tive to the fight against global diseases and illustrates the tremendous potential of this new field of disease ecology."

But knowing where the next outbreak is and understanding the reason for its occurrence does not alleviate the entire issue.

"The problem is, most of our resources are focused on the richer countries in the North that can afford surveillance – this is basically a misallocation of global health funding," said Peter Daszak, Executive Director of the Consortium for Conservation Medicine. "If we continue to ignore this important preventative measure, then human populations will continue to be at risk from pandemic diseases."



Global richness map of the geographic origins of EID events from 1940 to 2004. The map is derived for EID events caused by all pathogen types. Circles represent one degree grid cells, and the area of the circle is proportional to the number of events in the cell.

POSTDOC VERBURG DISCOVERS NEW FISH SPECIES

While living in Tanzania, East Africa, postdoctoral associate Piet Verburg enjoyed recreational scuba diving. Soon, a certain fish piqued his interest – a fish not present in existing literature. With co-author Roger Bills of the South African Institute of Aquatic Biodiversity, Verburg described two new species indigenous to the east coast of Lake Tanganyika and published his findings in *Zootaxa*.

"Only when we started to look closely at the fish did we realize that I actually had two species instead of one," said Verburg.

The two species, *Neolamprologus walteri* and *Neolamprologus chitanwebwai* belong to the *N. savoryi* species and cichlidae class.

Cichlids have evolved very rapidly in African lakes and Verburg explains that further studies are needed to investigate ecological



Neolamprologus walteri, top and *Neolamprologus chitanwebwai*, bottom

divergence between related and very newly evolved species.

"In other African lakes, very little divergence in ecology has been found between closely related cichlid species that actually live in the same place," said Verburg. "This contradicts the principle of competitive exclusion of similar species."

New evidence shows that these two species closely relate and do differ in ecology, while no such evidence has been found in Lake Malawi or Lake Victoria.

"Taxonomy and description of species is important in view of the high rate at which species are disappearing. To know the effects of species extinctions, we first need to know which species exist," said Verburg.

Importantly, from this work, two more species have been discovered that will further aid ecological study of conservation.

Breaking News

DOBBS FOUNDATION GRANT MAKES GREEN BUILDING A REALITY

The University of Georgia Odum School of Ecology, the world's first standalone school of ecology, wants to go green with a building that would showcase its environmental conscience. Now, with a grant from the Dobbs Foundation, the first step in considering and exploring such a facility has begun.

The \$180,000 grant from the Dobbs Foundation will fund a study of potential sites, programmatic elements, special sustainability design opportunities and conceptual drawings for further consideration by the university.

The proposed Odum School building would be unique in its showcase of sustainable features and would take advantage of the educational opportunities from a potential green building.

FAUST NAMED TRUMAN SCHOLAR

Odum School junior Christina Faust has been named a 2008 Truman Scholar. The mission of the Truman Scholarship Foundation is to recognize college juniors with exceptional leadership potential that are committed to making a difference through public service.

Each of the extremely prestigious scholarships provides \$30,000 for graduate study. Scholars also receive priority admission and supplemental financial aid at some premier graduate institutions, leadership training, career and graduate school counseling and special internship opportunities within the federal government.

The Truman Scholarship Foundation was established by Congress in 1975 as the federal memorial to the thirty-third President. The activities of the Foundation are supported by

a special trust fund in the US Treasury. There have been over 2,500 Truman Scholars elected since the first awards were made in 1977.

NEW ECOLOGY MINOR ESTABLISHED

Following a faculty vote in December 2007, the Odum School will launch its new minor in Fall 2008. This will be a Bachelor of Science minor.

With ecology as a discipline that has come to the forefront of society, it is a great complement to many other majors. The Odum School looks forward to educating more students in the exciting and rigorous discipline of ecology!

FUNDACIÓN MAQUIPUCUNA RECEIVES MACARTHUR GRANT

Ecuador-based non-profit Fundación Maquipucuna recently received a MacArthur grant that will help it protect the 500,000-acre Cotacachi-Cayapas Ecological Reserve. Ecology Ph.D. student Rebeca Justicia and Professor Ron Carroll both work with the non-profit that secures sustainable livelihoods for rural communities in northwest Ecuador.

Maquipucuna acquired the title for 98,000 acres of communal land adjacent to the reserve from the Comuna Rio Santiago Cayapas, the largest Afro-Ecuadorian community in the region. A portion of the land will be a community-protected area, while the remainder will produce organically certified cocoa for international markets. Maquipucuna has also helped coffee farmers obtain organic certification, form a roasting company and create the Café Choco-Andes label. The goal is to ensure that farmers have suitable market incentives to continue restoring shade coffee plantations, which provide a buffer for the Re-

serve.

PULLIAM HONORED BY US-IALE

Ecology Professor Ron Pulliam was recently honored at the 2008 conference of US-IALE (US Regional Association of International Association for Landscape Ecology) in Madison, WI. Approximately 30 international presenters attended the retirement symposium.

Pulliam is a former recipient of the Distinguished Landscape Ecologist Award, the highest honor from US-IALE. For more information, please visit: <http://www.usiale.org/madison2008/session.php>

RENOWNED SCIENTIST JAMES H. (JIM) BROWN SERVED AS 2008 ODUM LECTURER

The Odum School was thrilled to host Jim Brown for its annual Odum Lecture. Dr. Brown is a Distinguished Professor Biology at the University of New Mexico and a member of the National Academy. He presented his talk, "Toward a Metabolic Theory of Ecology," on March 25.

Following Dr. Brown's talk, a panel discussion was held. Serving as the moderator was Dean John Gittleman. Panelists, in addition to Dr. Brown, included David Coleman, professor emeritus at the Odum School; Alan Covich, professor at the Odum School; Sue Kilham, professor at Drexel University and Bernard Patten, professor at the Odum School.



DONOR PROFILE: Priscilla Golley



Priscilla Golley established the Frank Golley Memorial Fund in her late husband's name to help fund graduate student education. In her own words,

she discusses why she chose the Odum School for her gift.

“

Before Frank died, I knew I would establish a fellowship in his memory. Frank devoted his professional life towards

his goal of making the former Institute of Ecology, now the Odum School of Ecology, in his own words, “A community of scholars.” He worked with the architect to design the Ecology building to provide an environment where this community activity of sharing ideas would be done in both formal and informal settings. Along with the open area that encouraged all to gather and talk about their activities and research, he provided a gallery where there was a monthly changing display of art to provide the opportunity for an exchange of ideas across disciplines. He encouraged the students to think more broadly than the specific question of their own research and to de-

velop scholarly activities that promoted an exchange of ideas, such as the Peanut Butter Club and the annual student organized symposium. I believe a gift to fund a fellowship to be given each year to a student that promoted these ideals would encourage the continuation of the work Frank was devoted to achieving.”

If you are interested in giving to the Frank Golley Memorial Fund, please contact Elisabeth Butler at ehbutler@uga.edu or (706) 542-6007.



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