Warnell scientists rooting out energy, climate change research

Claud Brown wins Distinguished Alum • Warnell remembers Reid Parker • Forestry conclave comes home
A ‘Plum’ of a tournament
Thank you to our sponsors! Plum Creek hosted its second annual charity golf tournament in October, once again bringing a significant windfall to the Warnell School’s Young Alumni Endowment for Leadership Training. The tournament, held again at The Georgia Club just outside Athens, raised around $74,000 for the Warnell School. “We are lucky here at Warnell to have such a great partner, Plum Creek,” said Dean Mike Clutter. “The annual golf tournament has become a tradition for Warnell and forestry golfers throughout Georgia. I want to personally thank Pete Madden, Tom Reid, Grant Harvey and Jim Rundorf here in Athens, along with Rick Holley and his team in Seattle, for such a great event.”

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THRIVING IN THE FACE OF CHALLENGES AND LOSSES

This edition of The Log is dedicated to the memory of Reid Parker, a long-time professor, supporter and champion of Warnell and all things Bulldawg. He educated a generation of young foresters, helped UGA as a faculty athletic association representative and interim athletic director, and after retirement in 1986 continued to be an active supporter of our programs. Those fortunate enough to grow up here in Athens (God’s country as we know it) knew the Parker family and the contributions they made to our community. Reid will be missed but his memory will live on through that generation of students that benefitted from having crossed paths with him. In honor of Dr. Parker, his family and close friends have created a scholarship in his memory. If you are so inclined, the enclosed envelope provides a way to contribute to his memory and the impact he had on a generation of students.

Our programs continue to grow and thrive — with more than 350 undergraduate and 180 graduate students, enrollment has stabilized after our recent substantial growth. These student numbers really challenge us — particularly in our field-based classes where hands-on experience has been a hallmark of Warnell’s teaching expectations. We continue to adjust our curriculum to respond to these and other challenges involved in delivering a top-notch natural resources education.

Earlier this semester we hosted a couple of important events for Warnell and its constituents — the annual Forestry Conclave and our biennial Timberland Investment Conference. Forestry Conclave was held at the Whitehall forest with 15 participating schools. Many thanks go to the faculty, the UGA Forestry Club and supporters of this important event. In particular, Dr. Richard Daniels and the Forestry Club did an outstanding job in organizing and executing the three-day event. It was a memorable picture to see 200 forestry students camping on the flood plain below Flinchum’s Phoenix. Congrats to all involved. Also, congrats to the Center for Forest Business for another great Timberland Investments Conference held at the Ritz-Carlton on Lake Oconee. With more than 360 attendees along with Warnell faculty and graduate students, this conference showcases the best forest business program in the world! Congrats to Bob Izlar, Tom Harris, Jacek Siry, Dale Greene, Richard Mei, Rich Molpus and a bunch of graduate students that worked tirelessly to put it all together!

In closing, I want to convey that our programs are continuing to thrive thanks to the effort of our faculty, staff, students and support base. Our alumni work hard to generate resources to help our programs prosper and improve. Without this support, particularly over the past three years, we would be unable to meet the demands and expectations of our clientele. Thanks for all you do for our programs.

Mike Clutter,  
Dean, Warnell School of Forestry and Natural Resources
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HOW ARE WE DOING?
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ON THE COVER: Dr. Dan Markewitz examines the exposed roots of a pine tree. Markewitz and other Warnell researchers will be studying the possibility of using southern pine forests for use in biofuels, carbon sequestration and climate change mitigation with an influx of funding from the USDA. Photo by Sandi Martin

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A snow storm hit Athens in January, blanketing the campus in several inches of the icy stuff for several days, shutting down UGA and covering Building 1 of the Warnell School in white. Photo by Elizabeth Hagin

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In compliance with federal law, including the provisions of Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, Sections 503 and 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, the University of Georgia does not discriminate on the basis of race, sex, religion, color, national or ethnic origin, age, disability, or military service in its administration of educational policies, programs, or activities; its admissions policies; scholarship and loan programs; athletic or other University-administered programs; or employment. In addition, the University does not discriminate on the basis of sexual orientation consistent with the University non-discrimination policy. Inquiries or complaints should be directed to the director of the Equal Opportunity Office, Peabody Hall, 200 South Jackson Street, University of Georgia, Athens, GA 30602. Telephone 706-542-7912 (TDD). Fax 706-542-2822.
New cooperative to support deer research

Deer hunting in Georgia has grown to a more than $600 million industry and an important recreational activity for more than 300,000 hunters. Despite abundant deer populations across the state, Dr. Karl V. Miller sees the challenges, as well as opportunities, on the horizon. Although many landowners have initiated management programs to improve the quality of their deer herds, they often don’t have all the information they need to succeed. In addition, predation caused by burgeoning coyote populations appears to be influencing deer productivity in many areas. At the same time, human-deer conflicts such as crop damage, vehicle collisions and disease issues remain important considerations. That’s why Miller’s pushing for some proactive steps to safeguard this valuable state resource. “Despite decades of deer research across the country, we still don’t have all of the answers,” Miller said. “In fact, we’re now dealing with questions and issues that weren’t even on the radar screen of deer biologists a decade ago.”

Unfortunately, the need for more research has been hampered by dwindling funding for such studies. That’s why Miller is spearheading the development of a Deer Management Research Cooperative, which would help the Warnell School identify and implement research priorities and also develop a funding source to follow through with those initiatives. The first step was taken on Feb. 25, when around a hundred people representing private landowners, corporations, conservation organizations and state agencies attended a forum to discuss the formation of this cooperative. Attendees were treated to a discussion of Warnell’s current research projects, tour of its deer research facilities and a luncheon featuring keynote speaker Jeff Foxworthy, who wowed the crowd with some jokes before giving them an impassioned plea to help set up the cooperative.

Miller has been astounded at the support this idea has garnered. The response from those attending the forum makes him optimistic about the future funding and formation of the cooperative. “We are excited about the level of interest in the Cooperative,” he said. “It’s clear that everyone understands the importance of making management decisions based on sound science. We’re optimistic that the Cooperative will be able to make significant strides toward providing answers to important deer management questions.”

For more information about participating in the Deer Management Research Cooperative, contact Dr. Miller (kmiller@warnell.uga.edu), Dr. Robert Warren (Warren@warnell.uga.edu) or David Osborn (Osborn@warnell.uga.edu).

Warnell staff recognized at Homecoming festivities

Three staff members were recognized at the 2010 Homecoming dinner for their contributions to the Warnell School. Shane Kornberg, Eileen Carroll and Angie Callaway received the annual staff awards, presented by the Warnell Alumni Association. Callaway has been with UGA for 26 ½ years, the last five at Warnell as the school’s business manager. “The faculty, students and staff at Warnell make it a wonderful place to work,” she said. “Warnell is a true family environment. It was an honor to be recognized.” Carroll, a Massachusetts native, is married to Warnell Professor John Carroll. She has been the school’s grants coordinator for six years in May. “Over the years, I have seen many changes in grants administration,” she said. “Grant proposal submission has grown increasingly complex, and I help our faculty negotiate the numerous and complicated rules of all the various funding agencies. I’m able to use my accounting degree while working directly with faculty and students to help them put their best foot forward in representing Warnell.” Kornberg (BSFR ’99) has worked at the Cohutta Fisheries Center for 6 ½ years, a job he took while earning his graduate degree. “The best part of my job is outreach and extension,” he said. “We host lots of field trips from local schools, and teaching kids about fish and fish culture is very rewarding.”
The National Park Service has found a new home at Whitehall Forest. The federal service has partnered with the Warnell School for office, lab and support space at the 750-acre research forest. This will allow them to consolidate personnel in one Climate Science Support Center and fully focus its mandate to study the effects climate change has on park ecosystems. “It’s a great deal for both of us,” said Associate Dean for Research Jim Sweeney. “Having the National Park Service on our research campus provides enhanced opportunities for our students via undergraduate internships and graduate assistantship, and our faculty to work with climate change scientists on climate change and related topics.”

Joe DeVivo thinks so, too. The program coordinator for the National Park Service’s Southeast Coast Inventorying and Monitoring Network said the partnership is mutually beneficial. Park Service leaders wanted to make the change to Athens in order to eliminate satellite stations around the region and move outside of Atlanta, he said. Moving to Whitehall also puts them closer to other UGA collaborators. The program supports 17 park systems in the Southeast, DeVivo explained, and they have a directive and funding to study the climate change impacts on parks, which will then affect long-term management planning. “Part of the program is to engage other science partners in the region that does similar work, and the University here is obviously one of the nexuses of a lot of the climate change research in the region. We have a longtime agreement with UGA, so this made for a great fit for us,” he said.

Currently, the National Park Service has just four workers at Whitehall’s Phillips Lab – DeVivo, an aquatic ecologist, coastal biologist and a technical writer/editor — but DeVivo hopes to eventually have a dozen working out of the space. This will ultimately close those satellite offices, although the agency’s Cumberland Island National Seashore office will remain open to monitor wildlife and plant populations. Sweeney said plans are afoot to construct a new building that will be home to both Warnell’s new tenants and the U.S. Fish and Wildlife Service, which is currently located elsewhere in Athens. The site of the new building has yet to be determined, Sweeney said, but will be located at Whitehall Forest.
It was a sweet homecoming. Not only did the 54th annual Southern Forestry Conclave come back to its roots – the University of Georgia – but the UGA Forestry Club took some top honors in the 2011 competition. The Warnell School held the conclave at Whitehall Forest, hosting 14 other colleges during the three-day competition. It began with technical events and ended with the physical contests that have made the annual conclave such a popular battle among college athletes. And when it was over, UGA stood victorious, placing third overall behind perennial winners Arkansas and S.F. Austin.

Individual team members who placed:

- Second, wildlife identification: Tyler English and Gresham Cash
- Second, bowsaw: Matt Tsiklistas
- Second, women’s bowsaw: Laura Eidson
- Second, men’s crosscut: Matt Tsiklistas and Daniel Atkins
- Second, knife throw: Jason Bland
- Third, log rolling: Jason Bland and Austin Smith
- Third, pole climbing: Clayton Smith

Dr. Richard Daniels, faculty advisor to the UGA Forestry Club, praised the efforts of the students who took the initiative in planning the conclave and raising money to offset the costs of hosting it. “Many clubs said this was the best conclave they had been to,” Daniels said. “Our students can take tremendous pride in their efforts. The experience gained in doing everything it took to pull off an outstanding conclave is something we can’t teach in our courses, and I know each of them will take this experience into their professional careers.”

The forestry club students undertook the arduous task of organizing and raising funds to host the conclave. Not all costs were covered by the entrance fees, Daniels explained. “I can’t say enough about these students,” Daniels said. “Conclave is the highlight of their year, and it is a real joy to work with them to make it happen. This year the benefits of conclave go well beyond just honing forestry skills. Hosting the conclave is providing many more leadership opportunities and experiences in organization, business, fundraising and networking – all of which will be invaluable after they graduate.”

It’s not the first year UGA scored well at conclave. In previous competitions, the UGA team has placed second or third, taking
top honors in technical events at the 2010 forestry conclave held in Monticello, Ark., beating other competitors in tree identification, timber estimation, wildlife identification, wood identification, orienteering and aerial photo interpretation.

Although the more showy events like axe throwing, log birling and pole felling get the crowds more excited, the technical events truly highlight Warnell’s excellent forestry curriculum, which reflects the professional skills forestry students earn with their degrees. But this year’s conclave was also an excellent chance to see some pros compete. The Pro/Am Collegiate and Professional Timbersports Series sponsored by Stihl Inc., maker of chainsaws and other power equipment, topped off the first full day of competition by pitting professional and collegiate lumberjacks in a competition based on historic logging techniques. This portion of the conclave is scheduled to be broadcast on ESPN2 and ESPNU at a later date. Warnell’s Jason Bland also did well in this event, placing third among collegiate competitors.

For more photos of conclave action, visit warnell.smugmug.com.
While the UGA Forestry Club stayed home to place high in its annual conclave competition, the student chapter of the Wildlife Society took to the road, taking top honors at the annual Southeastern Wildlife Conclave hosted by Auburn University in March – the sixth year that the UGA team has won the overall competition. The only time in the past few years UGA has not won first place at the overall wildlife conclave was in 2007 when we hosted the yearly contest and could not compete. Faculty advisor Steven Castleberry praised his team, saying, “It was truly a team effort with UGA placing in the top three in almost every competition. And after getting second place last year, the Quiz Bowl trophy is back in its rightful place. The Warnell students were prepared, competed well and presented themselves as professionals.”

Individual award winners were:
- First place, Overall Conclave: UGA team
- Second place, team competition: UGA team
- First place, Quiz Bowl: Claude Vaughn, Derek Colbert, Amos Tuck, Laci Coleman and Jonathan Owens
- Second place, Essay: Sarah Arnold
- Third place, Painting: Camille Beasley
- First place, freeform art: Jackie Sherry
- Second place, freeform art: Annaliese Ashley
- First place, landscape photography: Annie Davis
- Third place, landscape photography: John Rossoow
- Third place, wildlife photography: Annie Davis
- Third place, turkey calling: Cody Seagraves
- First place, game calling (wild pig): Courtney Conrig
- First place, fly casting: Claude Vaughn
- First place, orienteering: Abby Prieur and Cody Seagraves
- First place, dendrology: Katie Mullen and Matthew Walter
- Second place, radiotelemetry: Beth Oxford and Laci Coleman
- Second place, obstacle course: Robert Brown, Swannie Evans, Justin Dycus and Skilor Gay

Rocking ID classes
Naturalists began flocking to Oconee Forest Park in February to learn about rocks of the Georgia Piedmont. Dan Williams, a forest resources manager, has been leading free rock identification sessions at the Warnell-managed forest, giving those attending a "naturalist’s perspective" on major Piedmont rock types.
Bob Izlar knew the 2011 Timberland Investment Conference would spark interest from the forestry and investment communities based on past experience. But even he was surprised by the record turnout for the biennial conference, which overflowed the Ritz-Carlton Lodge at Reynolds Plantation in late March. Attendance topped out at nearly 400, almost double the size of the 2009 conference, with representatives coming from 14 countries and 23 states, said Izlar, director of Warnell's Center for Forest Business.

“We are optimistic that the strong interest in the conference signals an improving economy and growing interest in timber as a stable, long-term alternative investment option for institutional and individual investors,” said Izlar.

The 2011 conference focused on global competition for wood markets, the impact of the housing market, and domestic and international investment outlooks. It drew forest industry and investment professionals eager to hear a diverse field of experts who addressed almost every facet of the timber business, including markets for wood products, bioenergy, timberland appraisal, legal implications of timberland investing and trends in ownership and forest management. More than 30 speakers were on the 2011 Conference agenda, including:

- Kermit Baker, senior research fellow at Harvard University’s Joint Center for Housing Studies;
- Danielle DiMartino, financial analyst with the Federal Reserve Bank of Dallas;
- Dean Robet Sumichrast, UGA Terry College of Business;
- Clark Binkley, International Forestry Investment Advisors;
- Reid Carter, Brookfield Asset Management Inc.;
- Dr. Jack Lutz, Forest Research Group;
- Dr. Brooks Mendell, Forisk Consulting;
- Mr. Bob Chambers, Sierra/Atlantic;
- Dr. Jon Caulfield, RMK Timberland Group; and many more.

In addition, Plum Creek Timber hosted a pre-conference woodlands operations tour for 50 attendees.

While Izlar is eager to plan the 2013 conference, he said, “We first want to thank our many sponsors whose contributions of resources, time and knowledge made the 2011 conference a successful event. We hope that the interest and excitement generated by the 2011 conference will continue to build for 2013, along with an improvement in the economy and timber and timberland values.”

The UGA event is the only university-sponsored Timberland Investment Conference in the world, bringing together leading experts from the private sector and academia to explore every aspect of the timberland asset.

The Warnell Center for Forest Business (CFB) pioneers academic research and sound financial methods to provide education and service to forest industry, investors and landowners throughout the world. It has previously held similar conferences in Munich, Germany; London, England; and at the Chateau Elan in Northeast Georgia. This was the third CFB investment conference held at the Ritz-Carlton at Reynolds Plantation.

A ‘Capitol’ Day

Members of the UGA Forestry Club and student ambassadors traveled to Atlanta on Feb. 9 to attend the annual Georgia Forestry Day at the Capitol, where Gov. Nathan Deal spoke at the Georgia Forestry Association’s Young Professionals meeting about issues facing the state forestry industry. Deal later spoke at a press conference announcing the results of a three-year Warnell School study about the value of non-timber forestland (see Page 12). Pictured left to right are student ambassadors Ashley Alred, Amos Tuck, Dylan Layfield and Derek Stanfield. Also attending but not pictured were members of the UGA Forestry Club.
Part of your research focuses on linking forestry with new biotechnology, with a particular interest in lobolly pines. How does your research relate to the emerging biofuels sector?

Lignocellulosic feedstocks are central to sustainable biomass to bioenergy systems. Wood is half cellulose, which is made up of sugars. A major challenge is to efficiently de-construct wood and release the sugars for conversion to fuels. If we can understand how wood is assembled at the molecular level, we will be better able to take it apart. We have focused on lobolly pine because of its importance in the southeastern U.S. and to the nation’s wood supply.

As part of your biofuels research, you have been looking at the molecular genetic mechanisms of wood growth and development in lobolly pines. What have you found that could propel the forest industry into bioenergy?

Our forest industry’s infrastructure and resources are well positioned to play a big part in a biomass to bioenergy economy. The Forest Biotechnology group in Warnell can complement existing strengths in the forestry program by integrating new biotechnologies. All of these resources will be needed to propel the forest industry into bioenergy. Our lab has identified major genes involved in cellulose synthesis and wood formation in lobolly pine. Working to improve cellulose content or manipulate other wood properties will contribute to more efficient biomass to bioenergy conversion systems.

You’ve been working with Dr. Scott Merkle to restore the American chestnut. What part of your research is helping contribute to bringing this once-dominant tree back from devastation?

This is an exciting project that’s part of the Forest Health Initiative to restore a cornerstone species of eastern forest ecosystems. The goal is to integrate genomics, biotechnology and breeding to develop blight-resistant American chestnut trees. Chinese chestnut is resistant to the blight, but it’s challenging to identify the genes that provide resistance. Dr. Merkle’s group can culture and regenerate American chestnut. We construct vectors to move potential resistance genes into American chestnut cultures. Trees are regenerated from cultures and then tested for blight resistance.

Your research isn’t limited to tree genetics. Why study the genetics of wildlife populations like sea turtles, red-cockaded woodpeckers and eastern fox squirrels?

Populations are increasingly threatened by pollution, over-exploitation, habitat destruction and fragmentation. With human development separating patches of suitable habitat, populations can become isolated. This results in inbreeding, which causes lower fitness and threatens the population’s ability to adapt to changes in their environment. We can use genetics and genomics to understand population structure, how populations are related, and to identify threatened populations. Information from the research helps to develop conservation and management strategies that will safeguard animal and plant populations.

You don’t do just research. Why is teaching and interacting with students your favorite part of your job?

College, including graduate school, is one of the most exciting periods of your life and working with students keeps you motivated. Warnell attracts an exceptional group of students with broad interests. Working at the DNA level allows you to work with a wide range of species and that facilitates working with students with diverse interests. The Warnell School strives to provide the best education and opportunities possible so that our students will succeed and become tomorrow’s leaders. I enjoy being a part of that.
Seniors get a head start on giving

Some graduating seniors couldn’t wait until they became alumni to start giving back to their alma mater. Beginning in 2010, seniors began donating to a “Senior Gift” fund to help support the Warnell School’s education mission, a campaign spearheaded by the student ambassadors. Donations received from the graduating seniors in the Class of 2010 went to the Young Alumni Committee’s Scholarship for Leadership training. It’s a great way for the senior class to give something back, said Student Services Coordinator Emily Saunders (BSFR ’05, MNR ’10). “I’ve seen first-hand what a difference even the smallest monetary gesture can make in the life of a student’s education, and that’s something that our young alumni appreciate once they graduate,” Saunders said. “They often want to return that favor once they have started their careers, so it’s amazing that so many of our seniors took that initiative before they even got their diploma. It’s that enduring support that allows Warnell students to reach their educational goals.”

Saunders said the current graduating class has not yet decided where they’d like their gift to be donated, but that it will benefit a Warnell program. The spring and fall classes last year raised around $500 for the Warnell School, a figure that Saunders is optimistic will be surpassed as the new gift program takes root. Students are notorious for having very little money to spare, so Saunders is thrilled that so many donated to the gift program. Any dollar amount is welcome, she said, although some students donated larger sums. “We just want everyone to participate, stay in touch and support each other in any way possible,” she said. “I would rather see everyone in our graduating class give $10 than one person give $500.”

The Log and 2009 Annual Report win honors

The Warnell School of Forestry and Natural Resources has won three awards in the Council for Advancement and Support of Education’s annual District III honors program. The organization singled out the Warnell School’s alumni magazine, *The Log*, and its 2009 Annual Report for Special Merit Awards. The District III advancement awards were announced at the organization’s February conference in New Orleans.

*The Log*, produced twice a year in the spring and the fall, won a Special Merit Award in general alumni magazine excellence. The 2009 Annual Report, published in the spring of each year, won two Special Merit Awards, one for general excellence in annual reports and the other for improvement in design. Publication staff singled out were Sandi Martin, Elizabeth Higin and Associate Dean Jim Sweeney.

Warnell hosts biofuels conference

More than a hundred people attended the Forest Bioenergy Conference hosted by the Georgia Forestry Association and the Warnell School in Forsyth in February. Foresters, landowners, logging contractors and other forest industry workers attended the third biennial conference to see where Georgia stands in bioenergy development and market as forest biomass emerges as a potential feedstock for renewable energy facilities. Among the speakers: Warnell’s Dr. Dale Greene (pictured left), Paul Ferre with Georgia Biomass, Anne Blair with Southern Alliance for Clean Energy and Nathan McClure with the Georgia Forestry Commission.
To those in the forest industry, the results of Dr. Rebecca Moore’s three-year study were not a surprise. Georgia forests provide $37 billion in ecological benefits to the state every year? Of course they do. While providing the raw materials needed for forest products and recreation, Georgia’s forests are also providing essential ecosystem services like water filtration, carbon storage, wildlife habitat and aesthetics. But when her research was announced at a press conference on Feb. 9 – with the governor in attendance – it definitely made a splash among those who hadn’t been in the know. That’s understandable – Moore’s quest to put a number on these previously unquantified indirect benefits was the first study of its kind in Georgia. “People value these things,” Moore said, “but because they aren’t like other goods in that people don’t go out and buy them, it’s difficult to estimate just how much we value them. The purpose of our research was to do just that – estimate the value of the ecosystem services provided by private forests in Georgia.”

Moore’s study was done with funding from the Georgia Forestry Foundation and a diverse group of contributing sponsors. The $37 billion value is in addition to the value of timber, forest products and recreation, which themselves also total in the billions of dollars. “We have had studies for some time that tell us what the economic benefit of wood and fiber manufacturing in the state is,” notes Steve McWilliams, Executive Director of the Georgia Forestry Foundation. “This new study allows us to place a dollar value on those services we receive from the standing forests, and they are many.”

Moore studied the 22 million acres of privately-owned forestland in the state to estimate the benefits of these ecosystem services, and the number she came up with astounded some. Gov. Deal said at the press conference held on the steps in the capitol in Atlanta that although everyone recognizes the impact the forest industry has on the economy, this news has important implications.

“People value these things,” Moore said, “but because they aren’t like other goods in that people don’t go out and buy them, it’s difficult to estimate just how much we value them. The purpose of our research was to do just that – estimate the value of the ecosystem services provided by private forests in Georgia.”

Moore’s final report focused on six types of ecosystem services forests provide: Gas and climate regulation; water quantity and quality; soil formation and stability; pollination; wildlife habitats; and aesthetic, cultural and passive use. She and her collaborators – graduate students Tiffany Williams and Eduardo Rodriguez and Warnell Assistant Professor Jeffrey Hepinstall-Cymmerman – analyzed Georgia forestlands by identifying key forest characteristics that affect ecosystem services and estimating per-acre values for each different type of forest. These values were estimated from survey data the team collected and from the results of previous published studies. The values can vary widely — between $200 to $13,000 per acre — depending on the location and ecology of the land, Moore said.

McWilliams said he hopes the results of Moore’s study focusing specifically on Georgia will result in public policy decisions that help us conserve Georgia’s forests. “It carries a lot of weight when we can talk about Georgia forests to Georgia legislators and Georgia opinion leaders,” McWilliams said.
As the American population landscape changes, public land managers find themselves facing a new challenge: Fewer Americans use state parks and national forests in the traditional way. So public land managers now need to find out what visitors want—and adapt or lose patronage. “It’s an important dilemma,” said Lincoln Larson, a Ph.D. student studying the issue under Dr. Gary Green. “Managers should acknowledge this demographic shift and respond accordingly. They need information that will help them to adjust their services, programs and activities to meet the needs of a diversifying population.”

Although research has revealed declining per capita visitation in national parks, national forests and state parks, Green’s team believes that adapting recreational offerings on public lands could help reverse that trend. Three Ph.D. candidates at Warnell investigated this issue at the state and federal level: Larson and Jason Whiting examined Georgia state parks, while Susan Parker examined federally-managed forestlands. Their findings could help shape future public land management decisions and policy.

Parker’s research focused on how changes in the United States population demographics might affect the future of recreational demands on national forest lands. She examined the reasons for the differences in how and why diverse ethnic groups use the Chattahoochee-Oconee National Forest in North Georgia. Visitors leaving the national forest were asked what types of recreational activities they like to do as well as where they choose to go to participate in these activities. Parker is also currently conducting surveys in metro Atlanta. “With the large diverse population living in such close proximity to the Chattahoochee-Oconee National Forest, it is important for managers to seek to understand the preferences of this potential visitor pool,” said Parker.

While Parker studied national forestland users, Larson and Whiting have been monitoring the changing visitor diversity and recreation preferences for state parks. In 2009 and 2010, they conducted more than 5,000 surveys, made nearly 20,000 visitor observations and performed several hundred visitor counts at parks across north Georgia. Their findings highlight how different ethnic groups preferred to use the parks, but also identified obstacles to visitation such as inadequate information about park activities. Their study will continue through 2011. “For many years, people viewed state parks as places to fish or hike,” Larson said. “Today, most park activities are very family oriented. The bulk of visitors—especially minorities—now use Georgia’s parks for cookouts and social gatherings. We need to find ways to capitalize on this type of use and get more kids outdoors.” Larson and Whiting’s study has already found success in another manner: Public land managers in other states now use it as a model to assess their own state park systems. “We know that park directors across the country are already looking to Georgia as an example for this type of research,” Whiting remarked. “It’s great to see that authorities are making a commitment to embrace diversity and manage their sites for people from all backgrounds.”
Double duty
Can pines be the answer to biofuels and climate change?
Photos and Story by SANDI MARTIN
Pine forests in the Southeast have suddenly become hot property. Not only is interest in using timber as an alternative fuel source burning hotter, but now scientists are heating up their efforts to study southern forests as a way to mitigate and adapt to climate change. And Warnell researchers and outreach specialists are at the forefront, winning two significant grants from the U.S. Department of Agriculture to study both topics. Their work has the potential to have a major impact on the role forests play on the topics dominating environmental policy debates.

UGA has significant experience in conducting research into both biofuels and climate change. This research has been a part of a flurry of experiments across the U.S. and is focused on alternative energy sources and ways of offsetting global warming. The results have been mixed. Corn is widely used to produce ethanol, but Warnell and other UGA researchers are looking at non-food sources that could be more efficiently utilized with existing forest management regimes in the South. Climate change research regarding our forests’ ability to adapt to a changing climate has also produced insights into the surprising resilience of southern pine. In addition, UGA has conducted numerous research studies on the possible ecological effects of global warming, including those by scientists at Warnell who have looked at potential impacts on various tree and wildlife species.

Warnell’s team expects to make significant contributions to the research on biofuels feedstock production and climate change with two concurrent studies. Although closely related, and with some similar research methods, the two projects have very different scopes and goals. An $880,000 grant from the U.S. Department of Agriculture’s National Institute of Food and Agriculture (USDA NIFA) Sustainable Bioenergy Program will evaluate promising plantation regimes for feedstock production with a focus on environmental impacts, specifically carbon budgets and greenhouse gas emissions. The team will examine the environmental balance required for biofuels feedstock production including aspects such as how to simultaneously grow timber and biofuels feedstock while maintaining soil and water quality. In addition, the team is interested in what happens to the carbon contained in the soil when the trees are harvested. The other project, also funded by USDA NIFA for $1.3 million, will focus on developing strategies for southern conifer forest mitigation of and adaptation to climate change.

Dr. Michael Kane, who is leading the climate change project, is hesitant to step into the debate surrounding global warming theories and the part that humans play. But if the climate change projections are correct, he says, southern
forests could have an impact on lessening greenhouse gases and global warming. “If climate change does occur, we need to know how to manage southern conifer plantations under evolving climatic conditions,” he said. Markewitz’s project could also provide insight. “Pine feedstock for liquid biofuels can be part of the solution too by reducing our carbon dioxide emissions to the atmosphere from fossil fuel burning,” he said, “and the portion of the trees we leave belowground can help remove some carbon dioxide already in the atmosphere.”

The two projects have virtually the same scientists: Professors Markewitz, Kane and Robert Teskey lead the charge on both, with Dehai Zhao also working on both projects and Bill Hubbard rounding out the cast working on the climate change project. Markewitz is taking lead on biofuels feedstock and carbon sequestration, while Kane heads up the climate change study. In both projects, the researchers will carefully monitor and characterize tree components both above and below ground and quantify potential energy and carbon storage while Teskey will conduct ecophysiological measurements to determine the environmental and biological factors contributing to tree growth and stand productivity. Zhao will provide an integrative life cycle carbon analysis, modeling not only above and belowground carbon accumulation but carbon emissions due to forest management activities. For the climate change project, Bill Hubbard, a Southern Regional Extension Forester and an adjunct faculty member with the Warnell School, will lead South-wide efforts to reach out to landowners, youth, natural resource professionals and the public to help them understand proper management techniques in light of research findings.

Both projects will span multiple locations across the Southeast, including existing pine plantations managed by the Plantation Management Research Cooperative, which has been conducting management research since 1975. Where the two 5-year projects differ are the ultimate goals:

> While conducting the biofuels feedstock production project, the team will examine different planting densities for loblolly pine to get the best biofuel feedstock production. Part of this project also will try to demonstrate if it is possible to get a better yield of biofuels from trees than from corn, Markewitz explained, as well as one that is cheaper to produce. “Incorporating biofuel feedstock production into existing systems of timber production could be very beneficial to land owners and to national energy security,” Kane added.

(Upper left) Dehai Zhao will produce models detailing carbon levels at research sites for the projects. (Bottom) Dan Markewitz holds pieces of carbon that has turned into charcoal that was found in the soil around the roots of a pine tree.
For the climate change project, which is part of a larger $20 million grant awarded to a consortium led by the University of Florida, the team will come up with new forest management methods to reduce greenhouse gas emissions, maximize carbon sequestration, increase the efficient use of nitrogen and other fertilizers and increase forest resilience in the face of a changing climate. In this project Hubbard will also address climate change in forestry by reaching out to landowners and natural resource professionals.

These research projects are important because of the economic and ecological benefits southern forests provide, said Kane. In the 11 states reaching from Virginia to Texas, forests make up 60 percent of all land. Pine dominated stands cover more than 50 million acres of which more than 30 million acres are plantations. The financial impact the forest industry has on the U.S. economy is well known, but policy leaders are also now truly realizing the environmental effects they have, in part because of recent biofuels feedstock production and carbon sequestration research. Southeastern forests store enough carbon each year to offset 13 percent of the region’s greenhouse gas emissions, Kane said. His team and the overall project team have high goals for the climate change project. They hope to see a number of significant outcomes, including developing advanced fiber production systems and new plant cultivars adapted to changing climate, reducing use of energy and nitrogen fertilizer through greater efficiencies by 10 percent, and increasing the amount of carbon being stored by southern pines by 15 percent by 2030. Kane added, “These outcomes will promote enhanced productivity of southern pine forests while maintaining economic and ecological sustainability.”

For the other grant, the team will focus on planting density. They’ll examine stands with densities ranging 600 trees per acre up to 1,800 trees per acre. “You would imagine that at some point, you plant them so dense it’s inefficient,” Markewitz said. He also explained that testing the planting density will help managers devise more efficient ways of planting and harvesting stands, such as systems where some closely spaced tree rows are thinned out earlier for biofuel feedstock use while other widely spaced tree rows continue to grow for later timber harvest. This project will not examine the economics of using trees for biofuels, Markewitz stressed, but will instead focus on quality growth methods and environmental impacts.
Cat owners have plenty of reasons to keep their pets indoors, but they may not realize that their furry friend may die from an infection that they can get from ticks. Warnell researchers have been studying the parasite that causes the deadly cytauxzoonosis disease, linking it to a common tick easily picked up by domestic cats. And they are now closer to learning more about the role wild felines play in the disease’s distribution — even in places they didn’t know were a problem.

Cats often acquire the parasite that causes this disease, *Cytauxzoon felis*, between May and September from the American dog tick or the lone star tick. Scientists have known for a long time that bobcats are a reservoir for *C. felis*, and Ph.D. student Barbara Shock has been researching the parasite for more than two years, recently studying the prevalence of *C.felis* in 13 states. Her surveillance results have been surprising — she’s found it in wild felids in North Dakota, where there have never been reports of cytauxzoonosis showing up in pet cats. “For the past several years, we’ve known that the ecology of *C.felis* as more domestic cats have survived the infection and become carriers themselves,” Shock said. “This study really highlights that the parasite is present in bobcat and cougar populations where domestic cat cases are lacking.”

Shock’s research, guided by Dr. Michael Yabsley and funded by the Morris Animal Foundation, has helped her track the true distribution of the parasite. Cytauxzoonosis in domestic cats is commonly found throughout the Southeast and Midwest, typically killing more than 90 percent of those infected. But recently researchers have found that many cats are surviving infection and becoming reservoirs themselves. Many believe *C.felis* is circulating in a domestic suburban cycle that makes wild felids like bobcats unnecessary.

Shock recently published a study in Veterinary Parasitology on the prevalence of *C.felis* in bobcat populations that links the distribution of the parasite in wild felids to the distribution of the lone star tick, furthering the idea that this tick is the primary vector.

Cytauxzoonosis can be particularly brutal. Domestic cats that become infected can start showing symptoms within days, such as lethargy, dehydration, fever and enlarged kidneys, spleen and liver. Although most die, many domestic cats are starting to survive infection even without treatment, although scientists don’t know why. That’s why researchers believe domestic cats can now serve as a reservoir for the parasites. That troubling to researchers, because that would pose problems for control of *C.felis*.

Yabsley said Shock’s research will give veterinarians in those areas where *C.felis* had never been found in domestic cats a heads up that such a deadly parasite is in their backyard. “In these areas, veterinarians should be aware of this disease and look for possible cases,” he said. “This research provides further evidence that *C.felis* can be transmitted by the lone star tick -- one of the most commonly encountered ticks on domestic cats in the Southeast.”

Currently, there is no good, effective treatment for a domestic cat that has been infected with cytauxzoonosis, Shock said. But she said cat owners can easily prevent it from ever happening: Simply keep your cat inside, and if cats do roam outdoors, keep its tick prevention medicine up to date.
Forests can provide some herbal remedies

Owners of forestland might not realize it, but they could be wasting valuable profit potential right under their trees. The emerging field of agroforestry could help them capitalize on opportunities within their own forest, including growing native plants that are increasingly rare in the wild. Graduate student Raina Sheridan is trying to find out what the best farming techniques of medicinal herbs are for landowners interested in this new method as part of a project spearheaded by the U.S. Forest Service with help from Warnell professors Dan Markewitz and Larry Morris, and Agriculture Professor Sarah.

In agroforestry, agriculture and forestry practices combine by cultivating non-timber forest products like fruits and medicinal plants within the canopy, understory and ground cover of forestland. Agroforestry offers a number of benefits over traditional methods, including increased native wild plant populations, water purification, carbon sequestration and more income for the landowner. It produces a number of commercial products and environmental benefits, Sheridan said. But in particular, they offer the chance to grow valuable medicinal herbs, which have seen a rise in demand. But should landowners choose to grow medicinal herbs through agroforestry, they might not know what’s needed to be successful at it. Sheridan was tasked with helping find out.

The project, which started in 2009, set out to determine the site preparation requirements for growing these native medicinal herbs to maximize production of biomass or medicinal compound concentration within the plant tissues. Sheridan chose Goldenseal, Ginseng, Black Cohosh and Fairy Wand for her study.

Sheridan’s project began with a plot within Hardman Forest north of Athens, where she chose three plots in upland hardwoods and then planted the herbs randomly with buffers among the plots. She then treated each of her three experimental blocks differently, barely managing one section while intensifying the treatments with each successive planting, up to removing debris, tilling and regulating understory. The more time and effort spent on preparing the block for planting didn’t yield much more than the spots where she barely did anything, Sheridan said, although those planted with the most work did appear to be healthier. Sheridan said they plan to return to the plots in June and check the growth status of the plants to confirm their initial findings.

Importantly, Sheridan did find that certain herbs did not fare very well in general. Although Fairy Wand grew well, Goldenseal became established half the time. Ginseng and Black Cohosh did very poorly, although Sheridan suspects that is because the latter two were planted as seeds, whereas the former were planted with established roots. “We found that our seeds did not want to grow anywhere in the forest under any circumstance,” Sheridan said.

“This lets us know that it may be worth the extra time and energy to raise the seedlings in a controlled environment before transplanting into the forest, at least until better methods are found.”
If Warnell sent thank you cards to the people responsible for inspiring students to enroll here, “Ranger Pete” would be getting one for Ami Flowers. Flowers was already an outdoors-kind-of-girl when her class took a field trip to the Okefenokee Swamp in the fifth grade. Before this, her she spent her summers making insect collections with her brother and fishing with her dad. But it was that fateful trip that really got the young Flowers thinking that a career in the outdoors was for her. “I was awestruck by the flora and fauna of the ‘trembling earth’ and by the storytelling of our Georgia Department of Natural Resources host, ‘Ranger Pete,’ she says. “Seeing Ranger Pete on the job made me think, ‘That looks like so much fun! I want to do that!’ And here I am today, making natural resources my career.”

Ranger Pete, we thank you. Since enrolling in Warnell as an undergraduate, Flowers has distinguished herself not only with her research into recreation topics, but also with her talents for drawing and teaching. She’s currently working on obtaining her M.S. in forest resources, but her graduate coursework is mostly in scientific illustration. She’s particularly interested in the role of art in environmental education, which is the topic of her thesis, where she explores whether having more art activities within such programs help students better understand, learn and appreciate nature and the environment. “I chose this project because I enjoy working with children and teaching children through the use of art about the natural world,” Flowers says. “This research is important to me because I really want children to grow-up experiencing and appreciating nature. Studies have shown that children are becoming increasingly isolated from nature because of increased technology and urban lifestyles. Environmental education programs are a key way to combat this issue and help children connect with nature. It is my hope that my research helps improve these programs and inspires children to be better stewards of the Earth’s natural resources.”

The kind of inspiration she hopes to give today’s children is the kind she got as a child growing up in Appling, Ga. The daughter of Hank and Debra Flowers, the now 26-year-old spent her childhood riding bikes, hiking, and exploring the woods around her house. The outdoors was her playground, and so when high school guidance counselors pushed careers in medicine or the law, Flowers wasn’t interested. “I grew up playing outdoors, and the thought of spending my adult life within four walls was not an enticing career choice,” she said. Brother Jared (BSFR ’04) introduced her to the inviting small-school atmosphere of Warnell and she was hooked. Now Warnell is paving the way for her to follow her dream of working in the great outdoors.

So what is she going to do when she’s earned her Master degree? “Either I will further my education with a Ph.D. or find a job in my professional field,” she speculates. “My ultimate goal is to work outdoors in a job that combines my passion for nature, teaching, and my artistic abilities — inspiring and teaching others about the importance of nature and conservation of the Earth’s natural resources.”
Phong Nguyen was just eight years old when he got his first pair of king snakes. They were a sign of things to come. The 21-year-old Warnell undergrad has been keeping reptiles ever since, expanding his collection over the years to include garden and milk snakes, and ultimately, in high school, with breeding bearded dragons and crested geckos. “Bearded dragons ranged from deep red coloration to yellow and orange,” he says. “I thought they were the most amazing animals because the way they looked.” It’s no surprise then that Nguyen’s got his eye on herpetology here at Warnell and beyond.

Originally from Santa Ana, Calif., Nguyen’s family moved to Georgia when he was a freshmen in high school when his father, Ky Nguyen, decided to retire to a calmer locale. After graduating from Collins Hill High School, he enrolled at UGA as a freshman. Warnell drew him in with its hands-on outdoor labs. “I wanted to work with herpetofauna and wildlife, and Warnell gave me the ability to experience that,” he said.

And that’s what he’s been doing since joining the school’s pre-professional program. His senior thesis involves working with Assistant Professor John Maerz at Whitehall Forest, studying the abundance in particular habitats of two and three-lined salamanders (Eurcea cirrigrera and Eurcea guttolineata). Nguyen is testing out three theories:

- That adult two-lined salamanders show similar abundances along streams regardless of specific habitat features
- That adult three-lined salamanders are more abundant on bank cuts than other terrestrial parts of streams;
- And that the probability of detecting larval three-lined salamanders but not larval two-lined salamanders will be negatively related to the distance from a bank cut.

“My thesis is going well,” he said. “I’ve started to mark and recapture adult salamanders with VIE (visible implant elastomer) and have set up 17 litter traps in a transect between two bank cuts. I’m hoping to mark and capture a lot more adults once the weather warms up.”

Nguyen expects to graduate this spring, and has applied for a herpetology internship that will have him working through the end of the year. After that, he plans to attend graduate school, although he has not decided where. Ultimately, he says, he wants to be a wildlife biologist specializing in herpetofauna. “I have considered getting a Ph.D. and teaching at an institution,” he says. “I do want to spend a few years doing research and traveling the world, perhaps conducting research on herpetofauna in my native country of Vietnam where there are still large forested areas that have not yet been surveyed.”
Less than a decade ago, Brooks Mendell was asked an infuriating question. In 2004, while defending his dissertation on risk management and finance in forestry, then Warnell Associate Dean of Academic Affairs David Newman asked what would ultimately be an inspirational query: “Now that you’re the world’s expert on something no one cares about, what are you gonna do?”

What did Mendell do? He proved Newman wrong. Mendell responded to the calls he was already getting about his dissertation’s topic and started a profitable company that finds the answers forest landowners and wood-using companies have about what the timber market looks like, how wood use is changing over time and what this means for future stumpage prices and investments. Newman, Mendell said, “was a motivator by instigating” him. Forisk Consulting, founded the same year Mendell earned his Ph.D. from Warnell, has grown into a thriving company that has twice landed on the UGA Alumni Association’s Bulldog 100 list (see page 29 for more details).

And it has landed the 40-year-old an honored position. Mendell was named the 2010 Distinguished Young Alumnus at last year’s Homecoming festivities for his contributions to Warnell and the forest industry. Mendell joked that he just made the age cutoff, and he said he’s honored to have been chosen. “I care about the forestry school a lot,” he said. “I read an article once that said your feelings about your school are tied to your feelings and relationships with key professors. For me that really is the case. (Dean) Mike Clutter is a good friend of mine, and he’s been very supportive of us.” It’s not just Mendell. Nearly his entire staff is made up of Warnell grads or UGA grads. “We have those personal relationships over there, and it sustains those relationships.”

These days Mendell spends a lot of time studying the current forest industry and giving dozens of talks a year. He also spends a lot of time with his two daughters, Dani and Ellery, and wife Elizabeth. But it took Mendell a while to get here. He earned both his bachelors and masters degrees from the Massachusetts Institute of Technology in the 90s and then started work for Weyerhaeuser while still in school. He got an M.B.A. from the University of California at Berkley in 2000 and worked for a consulting group. It wasn’t until 2002 that he landed at Warnell for his Ph.D. Even though he started Forisk in 2004, he didn’t actually work for his own company right away—he was doing a Fulbright program in Uruguay and joined Warnell’s faculty. And when he first started school as an undergraduate, forestry wasn’t the plan: He was a political science major at MIT. His interest in forestry, he said, was spawned by attending meetings about environmental issues and realizing that few people actually knew what was really going on. So he researched it himself. His focus quickly realigned. “I’m pretty quantitative, and I like science. But I like to know how things work,” he said. “Forestry, in the end, is a business.”
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Some foresters get their start simply by living in heavily wooded areas, cultivating a love of trees by proximity and youthful recreation. Others grow to love it as they realize timber’s importance in the world, both economically and environmentally. But Claud Brown didn’t grow up among trees, but his love of forestland was spurred in his youth. A native of Cumming, Ga., Brown likes to joke about his start in forestry: As a young man growing up during the Great Depression, his career began by pulling weeds.

“There were no herbicides back then,” he said. So when the Georgia Forestry Commission set up a pine tree nursery in his hometown, they hired teen boys and girls to keep it clean. “They had to be weeded by hand. Now that was a job!” And that’s how a storied career in forest research began, with hard labor for little money. It was enough. Brown, who’d always liked being out in nature, found himself interested in forestry. And later, while mulling over what to do with his G.I. Bill, he picked forestry, enrolling in the University of Georgia in 1946. Brown and UGA made a great match – he earned two degrees here and later came back to teach for 25 years, becoming a pioneer in biotechnology research. And in 2010, his contributions to science and the Warnell School were recognized. Brown was named the 2010 Distinguished Alumnus at Homecoming festivities last year. “It was quite an honor to win it,” he said.

It certainly isn’t the first award bestowed upon the 86-year-old. Over his career, he also won multiple research awards, including the prestigious Creative Research Award and Medal from UGA in 1981. Brown, who also has a Ph.D. from Harvard University, is the author or co-author of more than 100 articles in renowned research journals, has the distinction of sending samples to the moon with the Apollo crew, has written multiple books – including one still in use in dendrology classes at UGA — and was inducted into the Georgia Forestry Hall of Fame in 1985. Brown’s team at UGA not only spearheaded cloning of conifers and other research that later led to the technology that allows scientists to genetically engineer pine trees, but he may have been the first to grow pines in a lab in the world.

Dr. Scott Merkle has known Brown for 27 years and was the last post-doctoral researcher the noted Warnell professor hired before retiring in 1985. No one is more deserving of the Distinguished Alumnus Award than Brown, Merkle said. Not only is Brown a true example of an outstanding alumnus, but he is a pioneer in the forest biotechnology field. “Claud was doing forest
Now Accepting Nominations for Alumni Steering Committee, Young Alumnus Award & Distinguished Alumnus Award

If you would like to nominate an alumnus for the Steering Committee, visit our website, download and return your submission form to the Warnell Alumni Office.

If you would like to nominate an alumnus for Distinguished Alumnus please mail a letter of nomination to: Dean Michael Clutter, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA 30602. Young Alumnus nominees must have graduated from Warnell within the past 10 years and be under 40 years old.

All nominations are due September 30, 2011.

Contact Emily Nuckolls at (706) 542-0713 or enuckolls@warnell.uga.edu for information.

Biotechnology before the term biotechnology was even coined," he said. Merkle, who was asked to introduce the award to Brown at last year’s Homecoming festivities, noted the significant contributions Brown has made to forest research. Brown, he said, is the reason he came to Warnell. "In my mind, Claud is our school’s premier ‘world-class’ scientist," Merkle said. "And I know this is true because even now when I go to international forestry meetings, scientists from all over the world, when they find out I am from UGA, still ask if I know him. His research on tree physiology and genetics is so ingenious and groundbreaking that it often has often been used as examples of classic work in textbooks on tree physiology and plant development."

Brown wouldn’t even let retirement slow him down. For years after he officially retired, he conducted research in a lab he built in his home’s basement. He even published a dozen journal articles over a decade — all after retiring. It wasn’t until 2000 that he stopped. Doing research at home, he laughed, "was a lot more convenient. No interruptions from students. I could work all day." But he said he loved being at Warnell. He came to UGA from Texas A&M, he said, because he wanted to do basic research, and the forestry school in 1960 had a very practical approach to studying forestland. "I had complete freedom to do what I wanted to do while I was there – teaching or research," he said. He even turned down a position at Harvard to stay at UGA.

He doesn’t regret it. Now he’s just thinking about what he wants to do now. He lives outside of Athens on 30 acres near Watkinsville, but is considering one day moving to Houston to be with his son Scott and his two grandchildren. Brown’s wife of 57 years, Billie Kinsey Brown, died last year. His family, including daughter Claudia, visit him often. But in between visits, Brown enjoys listening to the sounds of the wildlife that still populate the former 2,000-acre forestland. Wild turkeys often make their presence known. “When we first moved out here, people thought we were crazy,” he laughed.
Homecoming hit a hole in one last year, as alumni flocked to Athens for some golfing, clay shooting and BBQ in time for the big game against Vanderbilt. Before heading to Flinchum’s Phoenix for the annual Alumni Dinner, attendees also raised some money for the Young Alumni Committee Endowment for Leadership Training. The 2010 Alumni Golf Tournament raised more than $11,000 for the endowment, with more than a hundred golfers teeing off at the UGA Golf Course. This endowment provides funding for leadership opportunities such as conference fees and host speakers.

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Great Research comes with Great Graduate Students

By EMILY NUCKOLLS

The poor college student years, everyone remembers it fondly; days when an extra $20 really meant something and you would attend almost any event if it meant a free meal. Cheap beer, good friends and football. At a time when college education costs are sky-rocketing and state budgets are being slashed we are lucky here in Georgia to have the HOPE Scholarship program which makes an undergraduate education a reality for many students who would not otherwise be able to attend UGA. Here at Warnell we are able to award 38 undergraduate scholarships thanks to the generosity of our alumni and friends, further aiding our students. Part-time jobs during college might build character, but a little extra time to study is never a bad thing! Some scholarships like the Young Alumni Endowment for Leadership Training provides travel money to students; enabling them to take their studies and research outside of Athens and attend conferences and research seminars, further preparing them for the road ahead.

But an education at UGA is more than football, scoping out some free food and friends. The University of Georgia is a world-class research institution, attracting the highest level of graduate students and researchers from across many different fields. Here at Warnell our ongoing and new research keeps moving us towards being one of the top forestry and natural resource programs in the nation. But this research cannot happen without the help of graduate students who perform much of this research, under the guidance of our faculty. Recently, in his 2011 State of the University address, President Michael Adams announced that the University would be focusing more funding on our graduate programs: "UGA cannot be a great graduate institution with a weak research agenda, and it cannot be a great research institution if the graduate programs are not strong." And here at Warnell we are doing the same thing. In his letter in the Fall 2010 Log Dean Clutter announced two new graduate assistantships the school will be establishing. But this doesn’t come cheap. A graduate education costs upwards of $200,000 a year and endowing an assistantship costs around $300,000.

Were you a struggling graduate student? Did you benefit from a fellowship or assistantship, allowing you to continue your studies at Warnell? Graduate students provide invaluable research help and teaching assistance to our faculty and we cannot continue to make gains in wildlife, natural resource management or forestry research without them. They make our school strong and help us give undergraduates a top-notch education as well.

Whether you received aide from one of our many undergraduate scholarships, helped us establish one once you left our grounds, or earned your graduate degree at Warnell, consider giving to one of our new Graduate Support Funds. You can contact Development Director Kim Holt or I for more information. We would love to talk!

As always my door is always open. If you ever find yourself on campus, stop by; I would love to show you what great things are growing here at Warnell!

For more information:
Emily Nuckolls, Alumni Relations Coordinator
180 East Green Street, Athens, GA 30606
(706) 542-0713 • enuckolls@warnell.uga.edu
1970s

Farris Cadle (BSF ’74) is now teaching as an adjunct professor at Middle Georgia College an online course that covers surveying law, using his book, “Georgia Land Surveying History and Law,” as the textbook. Following graduation from Warnell, Farris obtained a Master of Arts degree in geography from San Diego State University. He is a registered land surveyor and currently operates a land title research company.

Several members of the Class of ’76 met for an early 35-year reunion in January 2011. They reunited for a day canoe trip in the Okefenokee National Wildlife Refuge and a visit at St. Simon’s Island. Pictured left to right: Don Stone, retired interpretive naturalist with Broward County, Fla.; Sharon Dolliver, retired chief of communications with the Georgia Forestry Commission; Lance Hunt, retired branch manager with Lanier Engineering in Roanoke, Va.; and Sam Dolliver, retired environmental health and safety manager with Imerys Kaolin in Dry Branch, Ga.

1990s

Eric Fowler (BSFR ’94) is now living in Connecticut with wife Julie and son, Alexander. He’s worked for SavATree for the past nine years, specializing in plant health care and general tree care sales and service in Westchester County, New York.

Linda May (BSFR ’94) transitioned to the Georgia Department of Natural Resources in 2009 after spending 12 years as a wildlife interpretative specialist at Charlie Elliott Wildlife Center. She now serves as the environmental outreach coordinator for the nongame conservation section, working on educational program design, event coordination, public affairs and assisting with the revision of the State Wildlife Action Plan.

Bryan Jordin (BSFR ’99) has been tapped by Jackson Spalding to lead its JS Creative web design and development team. He will manage and grow the firm’s digital practice. Jordin previously worked as a web developer at the Georgia Institute of Technology and as the senior IT manager for the Southern Regional Extension Forestry Office. After graduating from the Warnell School, he studied computer science at Georgia State University.

2000s

Carol Guy (BSFR ’02) and Seth Stapleton (MS ’05) reside in Saint Paul, Minn. Seth is in the third year of his Ph.D. program studying polar bear population ecology in the Canadian Arctic through the University of Minnesota. He also continues to manage the Jumby Bay Hawksbill Project, a sea turtle nesting ecology research project in Antigua, West Indies. Carol is a Senior Consultant at PRIZIM Inc. specializing in sustainable practices and greenhouse gas emissions management.

Amanda Carla Newman (BSFR ’03, MS ’08) married First Lt. Thomas Fisher, U.S. Marine Corps, on Dec. 19, 2010 at Marine Corps Air Station Cherry Point Chapel in Havelock, N.C. Amanda is a production forester with Weyerhaeuser Co., and Thomas is a staff officer for 2nd Low Altitude Air Defense Battalion stationed at Cherry Point, N.C. They live in New Bern, N.C., with their two dogs and a cat.

Matt Owens (MFR ’06) gave a detailed presentation of his approach to managing Panola State Park to Dr. Neelam Poudyal’s park management class in February. Owens gave a tour of the park attractions and facilities and took the students on a hiking trip.
Sara Johnson (BSFR ’07) is now married to Andrew Miller of Bedfordshire, England. She is currently attending graduate school at Arkansas State University for a Master of Science in Biology degree, studying a suburban population of red-shouldered hawks in Cincinnati, Ohio.

Jason Eric Nedlo (BSFR ’07) started a new job as deputy district ranger on the Marienville District of the Allegheny National Forest in August 2010. He and wife Leigh Griggs Nedlo (BSFR ’04), and their toddler daughter, Phoebe Mae, welcomed a son Zephyr Lee on Oct. 18, 2010.

Mallory Cronic Wilkins (BSFR ’09) is working for the Florida Fish and Wildlife Conservation Commission in Panama City, Fla., working with Justin Davis (BSFR ’04, MS ’09) on the Carter Tract of Econfina Creek Wildlife Management Area. She lives with husband Olan and pets Blitz and Green Bean.

2010s

Hanna Smith Reece (BSFR ’10) has completed a six-month internship at Sweetwater Creek State Park, become CPR certified, finished Certified Interpretive Guide training and is working toward a pesticide applicator’s license.

Alums make Bulldog 100

Warnell alumni continue to impress in the business world. The UGA Alumni Association’s second annual “Bulldog 100: Fastest Growing Bulldog Businesses” program names three alumni-owned businesses as part of the 2011 rankings. The Warnell alums were honored at a prestigious ceremony in January for their savvy business management.

Brooks Mendell (PhD ’04) landed at No. 47 with his business, Forisk Consulting Inc. in Athens, while Monroe-based Zup Co. Inc. headed by Mike Zupko IV (BSFR ’95) came in at No. 57. Stafford Huff (BSFR ’80) landed at No. 85 with his co-ownership with other UGA alumni of Babush, Nieman, Kornman and Johnson LLP in Atlanta.

The Bulldog 100 rankings are compiled annually to recognize alumni who succeed post-graduation in business. To be considered for the program, an organization must have been in business for at least five years, have revenues of $100,000 or more for the calendar year 2007 and be owned or operated by a UGA alumnus. The program recognizes the fastest-growing businesses regardless of size by focusing on a three-year growth rate average. Atlanta-based CPA firm Gifford, Hillegrass and Ingwersen LLC ranked each company in order of the compounded annual growth rate to compile the top 100.

For more information, visit www.uga.edu/alumni/bulldog100.

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Even for a renowned forester like Reid Parker, the giant redwoods of California could still be an astounding sight. When Parker and his wife visited their daughter in California, they'd get about four miles on a drive before he'd ask that they stop so he could look at the trees. “Honestly, I thought Dad would break his neck, he just kept looking up and looking up,” Ann Parker recalled. “I remember feeling incredibly proud and happy that I could share something new with him.”

That love and curiosity about forestry never wavered during his life, not even after he retired from UGA. Parker (BSF ’50) died on Jan. 13, 2011, at the age of 86, just eight months after the death of his wife of 60 years, Cynthia Todd Parker. Their four children — John Reid Parker Jr., Ann Parker, Ginny Savini and Lee LoPriore — are all UGA graduates. Reid and Cynthia were also beloved grandparents to eight grandchildren, including Jessie Savini, currently attending UGA.

Before retiring as Associate Professor Emeritus in 1986, Parker taught at UGA for 32 years. During his distinguished career, he also served as undergraduate student advisor for Warnell students and was UGA Athletic Director for Administration for two years, accompanying the Bulldogs to their 1980 National Championship. A scholarship has been created to honor Reid Parker’s legacy; his family invites anyone who knew him and wishes to continue his good work to contribute to this scholarship in his memory (see sidebar, next page). “My sisters and I knew immediately that the perfect way to honor our father was a scholarship for students at Warnell,” said his son John. “He would be both proud and humbled — Dad truly loved the Forestry School and poured his heart into the students he worked with over the years. To be able to continue to help the coming generations of foresters succeed is what he lived for, and his spirit will live on through the students who use this scholarship.”

Parker came from humble beginnings, born in Franklin County, Georgia, on land bought by his great-grandfather in 1883. He grew up during the Great Depression in South Carolina and, like many men his age during that time, ultimately fought in World War II. Parker served in the U.S. Air Corps and U.S. Army from 1943 to 1946 in the European Theater of Operation, Company C, 66th Black Panther Infantry Division. On December 24, 1944, while crossing the English Channel, his troopship with over 2000 young American soldiers on board was sunk by a German submarine within sight of land. Tragically, almost 900 men died that night, but Parker survived and was discharged in 1946 as a staff sergeant. Always a modest person, he did not discuss his wartime exploits with his children for more than 30 years.

“Three years of military served as a time of maturation and made me appreciate home and family,” he wrote in his farewell address when he retired from UGA. Parker graduated from UGA in 1950 with his BSF degree and followed up his education with post-graduate work at other institutions. It wasn’t until 1954 that he came back to UGA and made his mark on the lives of untold students. Many came to him for help during hard times, a welcomed burden. “In retrospect, it scares me to think of the thousands of students I have touched in one way or another,” Parker wrote. “I have purposely angered, challenged, bribed, threatened, advised, cajoled, begged and finagled in whatever ways I felt would best serve the students’ needs … these influences exhibit the best and the worst of the teaching profession. And I am thankful and fortunate to have followed this professional path.”
When he retired, Parker spoke of his early life and humble beginnings, and described how the GI Bill led him to UGA, but it was a “most insignificant conversation” the day before he was discharged that led him to forestry. “An Army buddy casually remarked he would probably return to NC State to finish his degree in forestry,” Parker wrote in his farewell address. “I committed my SOUL at that instant to FORESTRY!!”

Parker’s loss has been deeply felt at Warnell. Bob Izlar (BSFR ’71, MFR ’72), director of the school’s Center for Forest Business, knew him when he was an undergrad. “I remember Reid Parker as a sort of ‘second father’ here at the school,” Izlar said. “Since Reid was advisor for all undergrads, we all got to know him very well over four years here. He taught the three sequential freshmen forest resource courses, and he also taught the economics of forestry course we all had to take as seniors. He was very easy to know, but he would not put up with those who would not try. Reid always took an active interest in our professional and personal lives.”

Bill Dudley (BSF ’64, MS ’66) said Parker became a great friend after he graduated. “As you think back, you remember four or five teachers who really had an influence on you,” Dudley said. “He was one of those. He wasn’t ‘do as I say,’ he lived his code. And he genuinely cared about us. He was a man of character, just genuine. He worked hard to help the students, and he was more of a mentor than professor to a lot of us.”

The impression and influence Parker made on students continued for years after they graduated. After their father’s death, his daughters took turns calling people to let them know he’d passed away. “We always knew he was a wonderful person,” said Ann. “But nothing could have prepared us for the responses we got from those phone calls: grown men’s voices cracking, telling us how he changed their lives.” Her sisters agreed. “Students told us how he’d guided their futures and helped them through difficult times,” Ginny said. And all three recalled fondly how students would come to the house when their father was still teaching at UGA. “I remember that some of them would bring guitars and other instruments, and we’d all sit around the patio and sing,” said Lee. “The students were a part of our life, too.”

During his time at the University, Reid Parker worked diligently and passionately with his colleagues, with students during their time at UGA, and with students who went on to work in the field of forestry. He gave unstintingly of his time in support of student and alumni activities to support foresters and the profession he loved. Parker Scholars must demonstrate a high level of academic performance and a strong involvement in a leadership role at the school during the first two years of their undergraduate career, showing:

- A demonstrated commitment to the school through direct service work in a student-focused program;
- Strong academic performance;
- Demonstrated aspirations of leadership;
- Demonstrated ability to overcome challenges;
- And a proven record of commitment to others.

For more information or to contribute to the scholarship, contact Kim Holt, Director of Development, at 180 E. Green St., Athens, GA 30602-2152, (706) 542-3098 or kholt@warnell.uga.edu.

Pictured in top left is Reid Parker and his wife of 60 years, Cynthia. In 2008, Parker and son John traveled to France, where they toured memorials to the soldiers who fought at Normandy (bottom left) and met with a local mayor, Monsieur Mouquet (top right). At bottom right, Parker is pictured with daughter Ann.
Obituaries

Charlie Bonner Jones Sr.
Warnell lost a Distinguished Alumnus and longtime supporter late last year. Charlie Bonner Jones Sr. (BSF ’48) died Sunday, Dec. 26, 2010, at age 86. A renowned forester in Georgia, Mr. Jones was an active member of Warnell’s Alumni Association and a past recipient of the school’s Distinguished Alumnus Award. Dean Mike Clutter said his loss has been felt. “Mr. Jones was a great supporter of forestry in Georgia and of Warnell,” Clutter said. “He enjoyed asking the tough questions and looking for answers to them. Our profession here in Georgia is much better off having had him as a contributing member to the forestry industry. We will miss his dry wit, his recalcitrance and most of all, his constant pressure to make our profession better.”

Mr. Jones was a native and life-long resident of Baldwin County. He was a member of the Boy Scouts of America with the ranking of Eagle Scout. He graduated from Georgia Military College in 1942, earning the rank of Battalion Commander. Mr. Jones served in the U.S. Army during World War II, reaching the rank of Staff Sergeant and receiving a Purple Heart. He graduated from the Warnell School in 1948 with a degree in forestry and began his career with the Georgia Forestry Commission.

Mr. Jones’s long forestry career included time with Dixie Wood, serving as president of Oconee Wood and a partnership in J&H Timber. In later years, he worked as a forestry consultant. Mr. Jones was a member of the Georgia State Board of Registration for Foresters from 1979 until 2005, receiving a governor’s commendation for his 26 years of service. He remained an active member of both the Georgia Association of Foresters and Society of American Foresters throughout his career. He was elected to the Georgia Foresters Hall of Fame in 1983 and was named a Fellow by the SAF in 1984. He received the GFA’s highest award, The Wise Owl, in 1984. Mr. Jones received the the Distinguished Alumnus Award from the Warnell Alumni Association in 2005. He was a founding member and past president of the Milledgeville Country Club, where he served as groundskeeper for more than 25 years. He also served on the board of trustees at GMC for a number of years.

Mr. Jones was preceded in death by his brother, James Jefferson Jones Jr.; his parents, James Jefferson Jones and Mattie Ruark Jones; and wife, Lena Nash Jones. He is survived by two sons, Charlie Bonner Jones Jr. and Myles Nash Jones, both of Milledgeville; and three grandchildren, Eileen Jones of Yorktown, Va., and Hayley Jones and Myles Jones Jr., both of Milledgeville.

S.E. “Shelly” Shuman
S.E. “Shelly” Shuman (BSF ’57) died Nov. 8, 2010, at age 79. Mr. Shuman, who was born in Clyde, Ga., but grew up in Pembroke, graduated from Bryan County High School in 1947. He was a member of Alpha Gamma Rho, Alpha Zeta and Xi Sigma Pi. Mr. Shuman served in the U.S. Navy during the Korean War while stationed in Guam. He served as a member of the Bryan County Board of Education from 1979 to 1986. Mr. Shuman was a member of the First Baptist Church of Pembroke, was an avid sportsman, raised deer hounds and collected freshwater ducks. He retired from the construction industry after working for Sam Findley for 11 years, APAC for two years and as founder and owner of Shuman Construction Company Inc. for 30 years. He received the honor of Savannah Boss of the Year, 1966-67.

Mr. Shuman was preceded in death by wife Mary Ann S. Shuman, mother Myrtie S. Wilbanks, father Henry Speir Sr., sister Velva L. Celeste and brothers Henry Speir Jr. and Melvin Speir. He is survived by three sons, Russ Shuman, Rick Shuman and Ronn Shuman, all of Pembroke; eight grandchildren; one great-grandson and numerous uncles, in-laws, cousins, nieces and nephews.

Frank Ollis Parker Jr.
Frank Ollis Parker Jr. (BSF ’59), of Canton, died Nov. 8, 2010, at age 78. A native of Haywood County, Mr. Parker was son of the late Frank Ollis Parker Sr. and Ruth Collette Parker. Mr. Parker was a former owner of A&P Motors, a retired owner of Frank Parker Trucking and a veteran of the U.S. Army, having served during the Korean War. He was also preceded in death by sister Toosie Allen and brother Max Parker. He is survived by wife Linda Lucas Parker; son Frank Parker III of Candler; daughter Melissa Clark of Winter Springs, Fla.; stepsons Jeffrey Blake and Alan Blake, both of Canton; two brothers, Wallace Parker and Dallas Parker; five grandchildren; seven step-grandchildren; and two step-great-grandchildren.
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