How Warnell took outdoor classwork online

Tracking the future of the red wolf

FIRE WORKS
Experiential learning translates into job training
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A crane positions the 16th and final lifting lug onto the hull of the motor vessel Golden Ray on June 3 in St. Simons Sound. Weighing over 38 tons, the lug was designed and manufactured to fit a specific section of the hull in order to stabilize it for cutting and removal by the 25-foot-tall Versabar VB 10,000 floating crane.

ST. SIMONS SOUND INCIDENT RESPONSE

A Wolf’s Tale
The population of the American red wolf stands at a crossroads, with politics and biology standing in its way. One Warnell alumnus is helping them find the path forward. PAGE 32

Hot Stuff
Prescribed burning is an acquired skill, but one that's essential for future land managers to learn and understand. Thanks to two spring break courses, Warnell students have the opportunity to experience this tool firsthand. PAGE 20

Frontlines of History
Alumni who work to protect Georgia's shorelines have spent nearly a year safeguarding St. Simons Sound following the capsizing of the Golden Ray cargo ship. PAGE 28

Our Digital Journey
Spring break this year became a line of demarcation: Before and after the coronavirus. Moving to an online format was an unexpected curveball, but luckily students and faculty hit it out of the park. PAGE 4

SUMMER 2020

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Renewing our Priorities and Perseverance

Our priorities suddenly shifted midway through spring semester. With the arrival of the COVID-19 virus, we made sweeping operational changes to meet what has always been our highest priority, the health and safety of our students, staff and faculty. Many other things were quickly put aside or delayed. Only essential research continued, outreach efforts largely went to virtual delivery and strategic planning deadlines were shifted by over two months. We focused on helping our graduating students finish their degrees and to keep the others on track—and on May 8, we celebrated our new graduates. We hope to welcome many of them back to Athens in October for an in-person event if conditions permit.

In the meantime, this summer I partnered with our faculty to help provide summer internships to many of our students who had opportunities fall through. Our strong financial support from so many of you helped us take those steps. So, once again, thank you for that loyal support. We are now moving toward restarting operations, with a goal to be teaching face-to-face on August 20. There remain more questions than answers, but we are working through the issues to be ready to start another academic year.

We are also in the final stages of completing our new five-year strategic plan, which will be shared on our website later this summer. Final approval by our faculty, alumni committees and Dean’s Advisory Board will take place in the fall. In many ways, we were fortunate to be in the planning process when confronted by the challenge of the pandemic. As a result, it’s helped us write a more resilient plan.

Thanks for all you continue to do to help us stay at the forefront of forestry and natural resources education, research and outreach. We wish you and your loved ones health and safety in these challenging times. We are here to help you if we can in any way. Better days are ahead—let’s help each other make them happen.

Go Dawgs,

Dale Greene,
Dean
HOW DO YOU TAKE CLASSES THAT REQUIRE BEING OUTSIDE IN THE NATURAL WORLD AND TURN THEM INTO AN ONLINE FORMAT? WITH INGENUITY, MORE THAN A FEW ZOOM MEETINGS AND A GOOD DOSE OF WARNELL SPIRIT.

BY KRISTEN MORALES

Participants in the hundreds—if not thousands—of Zoom meetings and presentations this past spring included (clockwise from lower left) associate professor Elizabeth King, senior Peyton Niebanck, assistant professor Gino D’Angelo, senior Cameron Pittman, associate professor Doug Aubrey, senior Ryan Grunert and associate professor Jay Shelton.
Professor Jay Shelton was knee-deep in McNutt Creek in a set of waders, explaining the next steps in counting and surveying fish. It’s a typical scene for anyone who takes one of Shelton’s aquatic sciences classes, except this time, Shelton was in front of a camera wearing a protective mask. Working with fellow faculty members Kris Irwin and Nick Fuhrman, Shelton was making one of several digitized lessons of the Natural Resources Management for Teachers class they co-teach.

The video series the trio produced rounded out the spring semester’s content that they didn’t get to before spring break—a line of demarcation of sorts for the University of Georgia. Just before students returned from spring break, they had received word that they shouldn’t—classes would take a two-week hiatus, and then go online for the remainder of the semester in an effort to keep faculty, staff and students safe from COVID-19.

Thus began two weeks of scrambling for solutions. For faculty, the challenge was taking the final six weeks of content and converting it into an online format, and research projects would need to be evaluated for possible coronavirus risks. For staff, it meant finding a new space in your home to set up your computer, connect with coworkers and get business done amid kids and pets. For students, it meant returning to your Athens apartment—or wherever you had a stable internet connection—and finishing out the semester with a new approach to labs and classroom discussions.

During this time, a question loomed in midair, waiting for an answer: How do you take classes and labs that thrive in an in-person format and make them virtual?

Here is a glimpse at how the Warnell family came together, despite being pulled apart by COVID-19 and social distancing, to pull off the rest of the semester.

LIGHTS, CAMERA … TEACH!

“We thought it would be cool to basically make it like we were doing a TV show—because when we first started, obviously, this is not at all what we planned,” says Shelton. He, Irwin and Fuhrman split the semester three ways, and it just happened that his lessons were all scheduled after spring break. “So, I said, well, I’m willing to come up with these virtual labs, but you guys will have to help me. And we decided to work as a team and try to make it as rich of an experience for students as possible.”

Of course, not every faculty member happens to co-teach with a TV personality (Fuhrman, a professor in the UGA College of Agriculture and Environmental Sciences, is also known as “Ranger Nick” to viewers of the Georgia Farm Monitor). But that didn’t stop some faculty from experimenting with new formats or changing up assignments to fit the digital realm.

Bynum Boley and Kyle Woosnam, both faculty who teach parks, recreation and tourism management, had experience teaching online. For them, the change involved rethinking how classroom discussions took place or restructuring presentations.

But Woosnam also co-teaches the summer parks, recreation and tourism field course with Irwin, which presents a different set of challenges. Due to continued restrictions on in-person classes this summer, it and other Warnell field courses moved online. The hallmark of all these field courses is the connections students make with professionals, careers in the field and each other. But even if students will be missing long van rides and shared hotel rooms, Woosnam and Irwin have planned a series of interviews and meetings with a variety of tourism professionals.

“In previous years, Kris and I would buy food and we’d make dinners and camp out. We just love it,” says Woosnam. “This summer, we will have these Zoom meetings, where students can be part of the conversation. We’ll just have to miss out on all the rides and lodging.”

RESEARCH, OUTREACH CONTINUES

Even though Elizabeth McCarty isn’t able to do in-person meetings and presentations, her calendar hasn’t opened up.
McCarty is a forest health specialist who spends a good bit of her time providing outreach to a range of professionals. Based at UGA’s Tifton campus, she often travels around the state. Now, the traveling is done from her computer, set up in a sunny room in her house. “I did an (Extension) agent training remotely; I wish it could have been done in person, but we’re still equipping them with the information they need,” she says. Otherwise, she is able to continue some research and catch up on some writing.

Outreach and research are integral parts of the work Warnell faculty do, and while the COVID-19 pandemic threw a wrench into some plans, for most it was an opportunity to pause, evaluate the status and the safety of their research staff, and then move forward.

While some new research projects have been put on hold, many ongoing projects were able to continue. Often, research taking place at an off-site location involved a researcher already in place, allowing social distancing to continue and for them to remain safe. Other long-term projects were deemed essential and granted permission to continue during the pandemic.

For example, professor Bob Cooper has been collecting data on the black-throated blue warbler for the past 19 years. The study, which is investigating the effects of climate change on the birds’ southern range, isn’t something you can just “turn off”—it involves two other faculty members and several study areas at the Coweeta Long-Term Ecological Research Site.

“For a study involving climate change, you really need a long-term study. You have a larger crew and it was much more involved in every way—you have to transport people to and from study sites, rent field housing, all these things that make it more difficult to arrange the project,” says Cooper. “But perhaps because it was long-term, UGA’s vice president for research saw that and the importance of maintaining the time series for data collection.”

The pandemic also gave some faculty members a new outlet for research. As our lifestyles changed, it sparked new questions. Has our interaction with the outdoors, and ticks, increased? With more people working from home, has it put additional stress on septic systems and the soils around them? And what about other human-wildlife disease transmissions? These questions and more are now being investigated by Warnell.

The school’s outreach efforts are also continuing in an online format. Irwin, associate dean for outreach, is working with faculty and staff to develop new modules that will provide the same high-quality education and professional development while also maintaining the safety of participants.

MAKE WAY FOR SENIORS

Obviously, moving to an online class format was a big change for students, too. For the most part, they rolled with it. Many chose to stay in their apartments near Athens to finish out the semester, even if social distancing meant life got a bit lonely.

Third-year fisheries and wildlife student Julia Yearout’s roommate was her bearded dragon, Lola. Her days consisted of waking up at 3 a.m. for her job at the UGA Dairy, then heading home, showering, taking a nap, and then her online class schedule. Whenever possible, students made a point to go outside—even camping for several days (the original social distancing).

“I was in the Grand Canyon when we got the message that classes would be cancelled,” says forestry major Robert Seibold, who graduates this fall. He tolerated the online work but wasn’t a huge fan. “You wake up at 11 and try to do work all day, and then you’re like, ‘Why am I inside all day?’”

Probably the biggest hurdle for students was finishing senior projects.

For example, Cameron Pittman, a senior fisheries and wildlife major, had planned to survey visitors to local parks. Earlier this spring he set up his questionnaire, worked out his locations and began spending time at the State Botanical Garden, talking to its visitors.

Then, it started raining.
“I had no idea I would be planning my survey during the rainiest month in the history of Athens,” says Pittman during his final presentation. February, it turned out, was a wash. He was able to collect a few more surveys before spring break—and then everything came to a halt.

Pittman wasn’t the only student whose schedule was thrown off by the weather—and then a global pandemic. “We had a crazy rainy January and February, so a number of groups were waiting for the skies to clear in March so they could get out into the field and take a second round of stand measurements, or a group working with birds, and they weren’t out when it was raining,” says lecturer Duncan Elkins, who advised several senior project students this past spring. “So, they literally were waiting for a window in which to collect that critical data, and then the closure of facilities kind of slammed that window on them.”

But despite the data disappointments, the entire experience was an interesting exercise in real-world project management. It’s not uncommon to begin with one idea in mind, only to have partners or stakeholders pivot—and you have to be flexible.

“No project ever plays out exactly how you think it will in the first few weeks of a semester, but the deviations this semester were an order of magnitude more than normal. And the students handled it with more aplomb than I’ve ever seen,” adds Elkins. “It’s not unrealistic to get a curveball in the middle of the semester; what was unrealistic was that every group had the same curveball, and it impacted them substantially but in different ways.”

In the end, though, all the senior project and senior thesis students completed the work and made their presentations. Probably the most nerve-wracking part, say their advisors, was preparing for a Zoom presentation—a different experience than speaking to a room full of people.

As it turns out, what began as a flurry of emails, digital meetings and working from living rooms turned into an incredible shared experience that pushed a lot of boundaries wide open. It showed how creative faculty, staff and students can be when it’s crunch time. And it highlighted the resilience and drive of students, who logged on two weeks after spring break to an entirely new set of challenges (and, often, surroundings).

Despite the changes, they pulled through and finished the semester strong.

“Our students really made me proud,” says Dean Dale Greene. “They’re a terrific group of young people. They just rolled with it. It makes me proud for the future of natural resources, knowing this is who we’re sending out into the world.”
Research Rewards
Associate professor Puneet Dwivedi received the 2019 Southeastern Society of American Foresters Research and Development award earlier this year. Dwivedi, an associate professor of forest sustainability, joins an impressive roster of Warnell faculty members who have also received the award: Kamal Gandhi (2016), Michael Kane (2014), Jacek Siry (2013), Pete Bettinger (2009), and Dale Greene (2007).

Election Results
• Cecil Jennings was elected second vice president of the American Fisheries Society.
• Lori Sutter was elected treasurer of the Society of Wetland Scientists (until 2024) and received the organization’s President’s Award for 2020.
• Jason Gordon is incoming president of the International Society of Arboriculture’s Southern Chapter.

‘My biggest concern is the lack of funding available for invasive species management and research, especially for invasive plants.’

CHUCK BARGERON, director of the Center for Invasive Species and Ecosystem Health, on what invasive species management concerns keep him up at night. Bargeron is the man behind Bugwood.com, a website that catalogs thousands of images to help identify and control unwanted pests and plants.

Beetle Battle
Forest health specialist Elizabeth McCarty partnered with the Georgia Forestry Commission earlier this year to produce a video and treatment method to help landowners and homeowners fight the hemlock woolly adelgid. For more details or to borrow a treatment kit, contact your local Extension office.
This spring, Warnell had a bevy of honors bestowed upon faculty. Four faculty members were honored with UGA-level awards for research, teaching and outreach, while our annual Warnell faculty awards highlighted those within the school’s ranks. Here’s a more detailed look at those who were honored.

UGA-Level Awards

**KRIS IRWIN**  
Walter Barnard Hill Award for Distinguished Achievement in Public Service and Outreach  
As the associate dean for outreach at Warnell, Irwin also teaches classes that connect the natural world with education and service-learning. His work connecting STEM education with service-learning was a major factor in receiving the honor.

**PUNEET DWIVEDI**  
Creative Research Medal  
Dwivedi studies the impact of heirs’ property on sustainable forest management among African American forest landowners. His research has helped African American forest landowners to practice sustainable forest management in Georgia and beyond.

**ALEX BUCKSCH**  
Fred C. Davison Early Career Scholar Award  
Bucksch’s work increases understanding of plant adaptations to changing environments, which could benefit crop yield and public health. More than 600 researchers use his methods through the world’s largest root phenotyping platform, Digital Imaging of Root Traits.

**JOHN MAERZ**  
Lamar Dodd Creative Research Award  
Maerz’s research addresses the effects of nonnative species, climate and land use on the ecology of native wildlife, while examining how animals influence ecosystem processes and how ecological principles can be applied to inform the conservation and management of wildlife.

**JAMES BEASLEY**  
Alumni Association Faculty Award for Research  
Teaching and research are linked, says the associate professor, and it’s important for students to see first-hand how scientific discoveries are made. “Students are often the cornerstone of research at a university, and graduate students are involved in the vast majority of research projects in my lab,” he says.

**GINO D’ANGELO**  
Alumni Association Award for Early Career Teaching  
His approach to teaching involves getting to know his students, drawing them into a discussion, and challenging them once they’re engaged. It’s something he learned in his years working in the public sector before coming to Warnell in 2017.

**JAMES MARTIN**  
Herrick Superior Teaching Award  
The associate professor often uses a “flipped” classroom model to deliver content to students in advance of the class. Then, he turns the lecture time into a “lab” of sorts, putting the new concepts to work. “So, when I have students in front of me, we’re working on something more hands-on.”

**ELIZABETH MCCARTY**  
Alumni Association Faculty Award for Outreach  
As forest health specialist for Warnell based at the UGA Tifton campus, McCarty spends a good bit of her time sharing her expertise with a range of stakeholders and constituents. It’s a great way to share her research, she says, and propels her to do more, both with the public and in the lab.

**JACEK SIRY**  
Xi Sigma Pi Forestry Honorary Outstanding Professor Award  
Siry knows his forestry undergraduate students didn’t come to UGA to study economics. So, when he steps into his forestry economics classroom, he makes every effort to bring high energy and even humor, to keep his students on their toes.

**KYLE WOOSNAM**  
Alumni Association Outstanding Professor Award  
Often called “Dr. Woo” by his students, the associate professor says he wants to see his students as more than just a face in the classroom. The associate professor recalls those who had an influence on him during his time in college, and he tries to carry that forward to the next generation.

**Welcome to Warnell!**

Joe Parsons (BSFR ’81, MBA ’82) joined Warnell in April as the associate director of the Langdale Center for forest Business. He most recently served as senior wood procurement manager for Graphic Packaging International's Macon plant.
For as long as he can remember, Karl Miller has loved learning about animals.

Growing up in rural Pennsylvania, Miller says hunting and fishing were as natural as breathing. When he arrived at UGA’s Warnell School of Forestry and Natural Resources as a graduate student in 1981, he was looking forward to learning from Larry Marchinton and other faculty who had already established the school as a leader in wildlife sciences.

Then, luckily for Warnell, Miller continued to stick around. He joined the faculty in 1985 and would go on to become an internationally renowned expert in white-tailed deer behavioral ecology, with research that also spanned forest management practices and biodiversity. His students describe him as passionate, approachable, influential and incredible.

Now, Miller’s long and decorated career at Warnell is coming to a close—he retires Aug. 31 as the Wheatley Professor of Deer Management. Yet he reflects on his time with humility and grace. While his research was influential, he is quick to credit his graduate students and their success stories as a reflection of his own work.

“It has been a tremendous experience. The people I’ve had the chance to work with at Warnell have been wonderful,” says Miller. “I think that a person’s greatest legacy is the effect you’ve had on other people, and how you’ve benefitted other people’s lives. ... We’ve done a lot of good work, but it’s not just me—it’s the whole deer team, and the people across the country and the world I’ve had the opportunity to work with.”

He also counts success by the ways his research could be translated to real-life applications. For example, his work with the Quality Deer Management Association has helped change deer hunting across the country, refocusing efforts on age structure and deer density. Miller relishes the opportunity to take science—such as forest or herbicide management research—and put it in the hands of those who can use it.

But at his heart, he’s a teacher, with many fond memories coming from the classroom. He taught Wildlife Habitat Management for more than 25 years—it was his favorite course to teach—and it was a course that got students talking.

“There is no single undergraduate class any student can take that teaches you more information,” wrote one student at the end of the semester. “It is hard to put into words the feeling when receiving an A in Miller’s class. A feeling that you have only begun to scratch the surface of what there is to learn about managing wildlife, but that what you do know about the habitat you are certain you could not have learned in any other way in such a brief amount of time.”

For 20 years, he also co-taught Warnell’s spring Senior Project class with Dean Dale Greene. This meant weekly status checks for the three- or four-person teams, pushing or critiquing or encouraging to get assignments done. The experience brought the two friends even closer—even finishing each other’s sentences or sharing reading glasses when they reached a certain age—and it’s something Greene says he’ll always cherish.

“I think a lot of students appreciated what Karl and I called ‘tough love.’ We wanted them to succeed, but we knew that if you miss timelines two or three weeks in a row, you’re really in a bad spot. One of us was doing the tough, one of us was doing the love,” he says. “It’s a challenging course to teach, but a very rewarding course to teach. Being able to do it with someone like Karl made it all the more special.”

Teaching with Karl was more than fun, Greene adds. Miller has high standards, is grounded in his faith and is kind and considerate of others. And he cares about his students’ success.

But then again, says Miller, working at Warnell never felt like a job. “If you love your job, you never work a day in your life. And my whole career, I never saw myself doing something I didn’t love,” he adds.

Now, as he transitions to retirement, Miller says he’ll be catching up on “missed time” with his grown sons, Shaun and Tim, as well as his wife, Renee. Renee has also stepped back from her “Taste of Quality” cooking column in the QDMA’s Quality Whitetails journal so they can focus on the next phase of their lives.

His new priorities? “We have a beautiful property we love, there’s trails we haven’t ridden, saddle pads that haven’t been wet yet, streams I haven’t fished and places I haven’t hunted.” Or, more specifically, he adds, laughing: “Everything Renee asks me to do.” — KRISTEN Morales
STUDENT VOICES

Hannah Young (BSFR ’20)

The parks, recreation and tourism management field course Maymester offered through Warnell is the best experience I have had in college. The Maymester is led by Kyle Woosnam and Kris Irwin, two of my favorite professors at the school. The Maymester takes PRTM students all over Georgia, showcasing different career opportunities for our field. Students are encouraged to make meaningful connections with businesses and agencies they are interested in working for in the future. We spent a week at the sunny Georgia coast and another week in the beautiful North Georgia mountains.

This Maymester experience helped me solidify the passion I had already developed for park management through my job at Fort Yargo. My favorite part about the PRTM Maymester is how many close friends you will make along the way. During this trip, you are able to form a bond with your PRTM cohort that will last long after graduation. I think that these bonds will be important because you will be working with these people professionally in the future.

I am so thankful for the friendships I have made, the knowledge I have learned, and the connections I have created during my time as a Warnell Dawg.

Editor’s note: This fall, PRTM students experienced field course virtually. See more details in the story starting on page 5.

A New Look for Building 1

Warnell’s oldest building got an update earlier this year that adds some modern style to its hallways. Using wall wraps and acrylic panels, Warnell installed a series of graphics that complement the historic features of the 1930s-era building. One set of graphics is located on walls between two much-used classrooms and features alumni quotes and highlights Warnell’s eight areas of emphasis. Another set uses drawings by Warnell graphic artist Wade Newbury on the stairwells between floors 2 and 3. The locations were chosen because of their high foot traffic and impact, with the graphics adding color and style to the hallways.

Roundtable Gets New Format

This year’s Roundtable event for students and potential employers featured icebreakers and other informal ways to help them connect. This annual event used to be a career fair and networking night, but over time the calendar has shifted. Today, many students have their summer plans lined up before spring semester starts.

So, now Warnell hosts a career fair in the fall, where those important summer connections are made, and Roundtable is a networking event that introduces younger Warnell students to alumni and potential employers who are still hiring if they did not secure a position at the Fall Career Fair.
Virtual Graduation

When campus moved to online instruction, it also meant plans for spring graduation ceremonies had to be shelved. So, how do you celebrate graduation when students and faculty are staying socially distant? Well, as many ways as you can.

With a desire to create a sense of community even from a distance, staff planned “care packages” to be sent to each graduate, containing the regular items they would receive for graduation—a padfolio, a note from Dean Greene and, for undergraduates, a copy of The Cypress Knee.

But staff had already planned to give new graduates alumni pins, so they were added to the packets, along with some Warnell-themed coloring pages and a copy of the printed programs.

On what would have been Warnell’s convocation day, Warnell released a video with the planned speakers for the day (Greene, faculty speaker Kyle Woosnam and student speaker Destin Kee) and celebrated graduates through a parade of social media posts.

To see the graduation speeches and download your own coloring pages (and bingo game), visit warnell.uga.edu/about/traditions.

Outstanding Seniors

It’s a tradition for Warnell seniors and professional societies to vote for the student who they think best represents their area of emphasis. The following graduates (or soon-to-be graduates) represent this year’s selections.

Keri Greeson
Parks, Recreation and Tourism Management
Greeson took a trip to Red Rock Canyon in high school and, she says, “ever since then I’ve been interested in how lands are managed—and environmental education, specifically.”

Jordan Horvieth
Fisheries
She changed her major four times before landing at Warnell. “Then I realized I should probably stop listening to other people and do what I thought was best for me.”

Robert Seibold
Forestry
“Growing trees sounds pretty fun to me,” says Seibold, who took a non-traditional route to his degree, including several years working at recreation areas across the United States.

Cody Scarborough
Wildlife
This South Georgia native always sees himself in the country. “Ideally, I’d like to end up out west for graduate school and get a master’s or a Ph.D. in wildlife behavior or habitat management.”

Rebecca Templeton
Natural Resources Management and Sustainability
As part of her GIS major, Templeton enjoys working with drones to gather information. “The part I find really helpful is that you get a visual output.”

Student Scholars

• Members of Warnell’s American Fisheries Society chapter received the Best Student Subunit Award by the Southern division of AFS.

• At the 43rd annual Southeast Deer Study Group, doctoral student Jordan Dyal received first place for Outstanding Student Presentation (joined by master’s student Zach Wesner and professor Richard Chandler). Students Adam Edge, Jackie Rosenberger, Cheyenne Yates and Jordan Younghann also presented research posters.

TA Honors

Will Lewis and Sam Merker received Warnell’s Outstanding TA Award. Both have taught Experimental Design, while Lewis recently also taught Ornithology.

Stephen Kinane, Farhad Hossain Masum and Chris Silcox received the UGA Outstanding TA Award. Kinane has taught timber management, and forest harvesting and roads, while Masum has experience teaching in a variety of courses, including Field Orientation, Measurements and Sampling; Renewable Resource Policy; Economics of Renewable Resources; and Society and Natural Resources.
A Handbook for Removing Obsolete Dams

When the University of Georgia set about to remove White Dam, an outdated dam on the North Oconee River, the process involved more than moving heavy concrete. It also required cutting through piles of red tape and layers of approvals.

But in the end, the project proved to be a valuable example of how landowners, agencies and nonprofits can work together for a shared end goal: a healthier river. Now, the multi-agency team that cut its teeth removing White Dam (led by faculty member Jay Shelton) has released the first handbook to removing obsolete dams in Georgia, putting a successful process on paper for future landowners and agencies to reference.

Sustainable Sourcing

Associate professor Puneet Dwivedi is collaborating with the Sustainable Forestry Initiative to analyze the effect of SFI’s fiber-sourcing standard on water quality and biodiversity in the southern coastal plain of South Carolina, Georgia, Florida and Alabama. This region, which is home to several imperiled species, could see positive effects through forest management practices, such as the program supported by SFI.
A New Way to Analyze Wood

Researchers at Warnell are developing a new technique to quantify wood and bark volume using computer imaging and a custom-built router.

Place a wood disk on the deck of the router, located in the Philips Plant Sciences Lab at the edge of Whitehall Forest, and it will hover, calculate, whirr and cut sleek, smooth lines across the wood’s surface.

“Now we have wood disks that are clean and can be imaged,” says Joe Dahlen, associate professor of wood quality and forest products. “We’ve sampled 400 trees, and we’re looking at determining the ring-width information from the disks. Given the clean disks, let’s see how much more information we can get out of them.”

Once the clean cuts are made, the wood disks are taken to a specialized photo studio of sorts—also built by Dahlen and his research assistants—where they take images of each machined piece using a variety of white and blue lights to illuminate unique features of the wood.

Using this information, Dahlen’s research team is now working on a variety of models to determine factors such as the amount of compression wood, bark volume and total wood volume.

All of these calculations tie into a larger project that Dahlen’s team is tackling, which is looking at the performance of longleaf pine trees grown in plantations. But once the algorithms are tested and refined, they will have a model that can then be developed for any kind of tree.

By scanning a wood disk, Warnell researchers are developing computer models to calculate the components such as amount of compression wood, bark volume and total volume.

Sharing and Caring

A new “shared stewardship” agreement between Georgia and the federal government is one of many such partnerships across the country. But what does this agreement mean for forest management?

Assistant professor Jesse Abrams has been tapped by the U.S. Department of Agriculture to help assess the goals and achievements of these shared stewardship agreements over the next five years.

Why states enter into them, what they perceive as benefits, and how the partnerships play out across various landscapes will all be examined by Abrams and his research team, which specializes in environmental and land-use policies.

Too hot to fish?

Late spring and early summer consistently produce some of the best fishing of the year, but summer can be productive as well. The fish have finished spawning and are feeding aggressively just to keep up with their high metabolism in warm water.

Bass are always a popular target among Georgia anglers, and favorite lures include soft plastic baits such as worms or lizards, hard plastics like crankbaits, or other lures including spinnerbaits or jigs.

Avoid the heat by getting out early or late in the day; these times are generally when the fish are most active anyway. Outings can be especially fun with topwater plugs or buzzbaits fished near structure (fallen trees, docks, etc.). Warm weather often requires anglers to slow their retrieve (perfect for plastic worms) or use more natural baits like live minnows or nightcrawlers suspended under a float.

ROBERT BRINGOLF
Associate dean for academic affairs and professor (fish biology and ecotoxicology)
Guinea Worm Work

For her senior thesis, Erin Box, with an assist from former Warnell undergrad and master’s student (and current lab manager) Kayla Garrett, worked with professor Michael Yabsley on how this disease is transmitted, which is increasingly being reported in dogs.

Published in the journal Scientific Reports, the study represents a significant step in understanding how this disease is transmitted. While infections among humans have dropped, infections of animals are still found in three countries in sub-Saharan Africa.

Following Butterfly Paths

Every fall, the orange and black wings of monarch butterflies grab your attention as they fly their annual migration route between Canada and Mexico.

But many other species migrate through the area, says master’s student Krishna Sharma. He’s now working on a project with professor Elizabeth King that, over time, will tell us more about the other butterflies that stop in Georgia on their annual trek.

Sharma is working with Butterflies of the Atlantic Flyway Alliance to understand more about the butterflies’ movements: Where do they stop, what attracts them and what plants’ nectar do they eat while they’re on Georgia’s coast. Data collected up and down the coast by citizen scientists associated with the organization offer insights into monarch movements, Sharma says, but lesser-known varieties still remain a mystery.

So far, the research done on migrating butterflies is dominated by monarchs. Sharma says he hopes that, through this work, he’ll be able to spur a conversation about additional species.

The Value of ‘Social Return’

Do you plan your hotel based on how it translates on social media? Associate professors Bynum Boley and Kyle Woosnam found some travelers consider this factor when choosing a non-franchise hotel over a chain.

In general, hotel chains offer consistent service and cleanliness, and guests generally know what they are going to get. “What you don’t see is people posting, ‘Hey, Hilton was very clean,’” says Boley. “You tell people to stay places that are unique, special or different, and also match an image of yourself that you want others to see of you.”

Your Friendly Neighborhood Bird

Ibis have become an integral part of urban life across much of the coastal Southeast. But this iconic bird’s ability to adapt to urban areas includes some trade-offs, notably in their health, daily and seasonal movement patterns, and potential health risks to humans, according to a series of studies co-authored by Warnell researchers.

In one study, professor Jeff Hepinstall-Cymerman writes that birds living in urban areas are less nomadic than their wildland relatives, with the abundance of food fundamentally changing how the birds sustain themselves.

At the same time, a second study by professor Sonia Hernandez finds birds living in urban areas are much more likely to have a less diverse gut microbiome, leaving them and their offspring more vulnerable to disease and exposing human populations to salmonella bacteria.

The studies are part of a collection of research on the ibis funded by the National Science Foundation and were published earlier this year in the journal PLOS ONE.
As humans stayed inside, did animals venture out?

In late March, as communities began to issue shelter-in-place orders, it seemed animals came out of hiding. But were animals relishing in fewer humans around, or were we just noticing them more?

As it happens, Warnell assistant professor Michel Kohl and biologists from Georgia’s Department of Natural Resources had wildlife cameras set up across metro Atlanta during this timeframe for a separate study on urban coyotes. In looking at the movements the cameras recorded, data pointed to a possible uptick in daytime wildlife sightings that may correspond with stay-at-home orders.

“All of a sudden, this pandemic happens, and we see this massive switch in human behavior that, across the globe, has led to anecdotal evidence that wildlife are responding quite quickly,” he said. “Now, we have this data that we can dig into and see, maybe, if we saw something similar as Georgia shut down and then started to pick back up.”

How this directly relates to the COVID-19 shutdown is still not clear, but it’s something Kohl and his team continue to investigate.

$100 MILLION

Estimated amount of damage done to peanut and corn crops each year across 11 states due to feral hogs. A study by Warnell and Savannah river Ecology Laboratory alumnus Chris Boyce found the best time to prevent damage by these animals is just prior to planting.

Pig Partnership

Feral swine cause about $1.5 billion in damages across the country. Southwest Georgia, where more than half the land is used for agriculture, wildlife management areas and other sensitive ecosystems, the damage wrought by these invasive animals is particularly devastating.

But earlier this year, Warnell provided technical assistance as part of a new federal pilot project to eradicate feral swine in Southwest Georgia. This $1.5 million, 3-year project works with partner agencies to capture the animals and work with landowners to mitigate damage. Professor Mike Mengak and several students continue to gather data and assist with outreach efforts among landowners and residents.
‘They’re pound-for-pound the hardest-fighting animal I’ve ever experienced.’

J.T. PYNNE, a doctoral student tracking where pocket gophers are—and aren’t—across Georgia, Florida and Alabama.

Student works to amplify diversity in science with #blackbirdersweek

As an African American woman studying wildlife sciences, master’s student Sheridan Alford also realizes that too often, the conversation about birdwatching—and STEM topics in general—doesn’t include people who look like her. So when Christian Cooper, an African American man and avid birder, was harassed by a woman while birding in Central Park, Alford and a group of friends with similar passions decided they wanted to shine a spotlight on other black birders.

So, #blackbirdersweek was born. Within a week of launching the hashtag, their Twitter profile had more than 20,000 followers. Alford and others in a GroupMe chat that organized the effort used the platform to amplify voices of color from the scientific community.

The online event also connects to Alford’s master’s research, which is assessing African American involvement in birdwatching.

Research Delves into Interstate Highway Travel for Logging Trucks

Every mile log trucks travel adds to the overall cost of the timber—and current federal weight laws prevent log trucks from using interstate highways. But research by Joe Conrad, assistant professor of forest operations, is measuring the benefits of shifting log trucks from back roads to interstate highways.

This translates into safer routes that take logging trucks off local roads, minimize wear and tear on these roads, and cost savings for timber producers.

“So, the goal of the research was, if you made the weight limit the same on interstate and state highways, would it improve the efficiency of our timber transportation industry? The results were a resounding yes,” says Conrad.
The capsized hull of the motor vessel Golden Ray lists off St. Simons Island as equipment with Weeks Marine installs the first 36-inch floating pipe barrier segment. The pipes, placed between pairs of pilings, support the environmental protection barrier around the ship. It also supports the floating offshore oil boom that completely surrounds the work site as the ship is cut into smaller parts for removal. DIEGO HURTADO/GEORGIA DEPARTMENT OF NATURAL RESOURCES
Prescribed burn classes give students an edge in the real world
The morning’s air felt thick. It wasn’t ideal.
As the students gathered into the wood-paneled classroom at the Joseph W. Jones Ecological Research Center at Ichauway, Mark Melvin bit his lip. The plans that day called for their first hands-on prescribed burn, at a pie-shaped piece of land near Ichauway’s skeet range. Conditions weren’t terrible, but they weren’t great.

Melvin, prescribed fire management specialist at the Jones Center who is instrumental in teaching an annual spring break course in prescribed burning, remained hopeful. More or less.

“I spent about an hour this morning thinking about how we were going to burn,” says Melvin as he pulled up a web browser for the class to look at the numbers. In three hours, the fuel moisture had changed from 15.4% to 22.4%, just a little too wet to comfortably burn wiregrass. “If it was dry and it was going to be windy today, we’d probably be out there right now with our test fire. Even though these aren’t ideal conditions, it’s good because it gives us some flexibility.”

The devil may be in the details, but the details are essential for something like a prescribed burn, where smoke can quickly become a liability and the weather can be predictable in its unpredictability. The morning’s ever-changing conditions were a real-world lesson, though, and one reason why the students had taken the four-hour drive from Athens to spend their spring break in South Georgia surrounded by longleaf pine.

The spring break class at the Jones Center, now in its 20th year, is one of two opportunities students have to get hands-on experience with prescribed fire. Another spring break class takes place at the Savannah River Site outside Augusta and is in its fourth year. Because of the locations and the partner organizations for each class, they offer different perspectives, methods and takeaways. But current and former students who have taken the classes say they are grateful for the experience, and their understanding of fire has only expanded their opportunities after graduation.

“I went into the prescribed fire course without any expectations, and I thought the program was really, really cool,” says Lauren Head (BSFR ’20), who graduated this year with a degree in wildlife sciences and took the course at the Jones Center in 2019. “It was not something I would expect to get hands-on experience within college. I was very excited to get that experience as an undergrad.”

Sierra McGrath uses a drip torch to start a burn line during a practice fire at the Jones Ecological Research Center.
LONGLEAF LOCATION

At the Jones Center, students are immersed in a longleaf pine ecosystem. They spend their spring break not only learning about fire dynamics, weather reports and how to create a burn plan, but also about the benefits of fire for plants and animals that thrive in these forests. They may begin a day in the classroom, but soon file out into waiting vans to learn from Jones Center experts on, for example, how fire benefits wetlands or red-cockaded woodpeckers.

The class began as a Maymester experience, but the timing always proved difficult for burning, says faculty member Holly Campbell. Over the years, the course has been tweaked to reflect the needs of the students or complement what was being taught on campus. Today, it reflects a balance of hands-on activities, opportunities for safe burning and classroom instruction.

Not only are the students getting exposed to fire, adds David Clabo, who teaches the course with Campbell, but students are also gaining a fuller understanding of how fire can benefit an ecosystem.

“The Jones Center course covers a lot of the fundamentals. If a student works with fire later in their career, they can build upon those fundamentals and get specific for the area they are working in,” says Clabo, assistant professor of silviculture outreach based at UGA’s Tifton campus. “Let’s say they work out west over a summer; they learn the fundamentals at the Jones Center and build upon that in their career.”

It can also work in the opposite direction. For example, Luke Porter (MS ’20) came to Warnell with a few years of wildland firefighting experience under his belt. But he was interested in taking the Jones Center course to learn more about fire management in the Southeast.

Out west, he says, fire is a different animal—you have extremely dry conditions, a variety of vegetation and mountainous terrain that turn each fire into a different experience. But if a western fire is an uninvited guest who blows in through your front door and starts rooting through your fridge, a prescribed fire in the South sits on your porch and holds a conversation. Good fires are planned in their route as well as their benefits.

It’s something Porter says he wanted to know better, and the Jones Center class gave him that opportunity.

“I think it’s really cool to use prescribed burns in the South. I know we are doing a lot better job and getting people out west to burn more, but it’s harder because of the nature of what they face,” says Porter, who pursued a master’s degree in forestry after working for the South Carolina Forestry Commission and the U.S. Forest Service. “But here in
the Southeast, we’re breaking that mold.”

Fires are a natural part of nearly every environment. Porter, whose first job after college was making maps, notes maps of places in the world where fires happen: “Fires occur wherever there’s fuel,” he says. “So, anywhere. You can’t take it out of the environment, but you can control it. And that’s what prescribed burning does.”

GETTING CARDED

A few hundred miles away, near the border where Georgia tucks into South Carolina, another dozen students were suiting up for a similar challenge. Here, though, the students in professor Doug Aubrey’s prescribed fire course were working alongside U.S. Forest Service employees to maintain the Savannah River Site’s roughly 200,000 acres.

While students taking both courses must first complete a pre-test, the Savannah River Site course must adhere to more strict federal standards. Students are required to take a wildland firefighter training course over two weekends prior to heading out to receive their “red card”—a certification allowing them to work on a prescribed fire with a federal agency.

The red card is one major difference between the two prescribed fire classes. The second is the way in which students experience fire. Fires at the Jones Center are more of a family affair, with staff on hand to help out if needed but in general happy to hang back and let the students take a leading role in setting a line or walking with a drip torch. Neighbors have grown accustomed to regular burning on the property, and the location in general lends itself to fewer issues with smoke.

In contrast, at the Savannah River Site, U.S. Forest Service personnel work the fires full-time and have a battery of equipment to tackle thousands of acres, if necessary. While Melvin notes the largest fire he’s ever burned at the Jones Center was several thousand acres—something he doesn’t plan to attempt again any time soon—that’s a more typical fire at the Savannah River Site.

“I think what they experience on the Savannah River site is probably a whole other level compared to what’s at Ichauway,” says Aubrey. “Here, somewhere between

ABOVE: Jones Center herpetology scientist Lora Smith shows small tadpoles to students during a morning session on wetlands and biodiversity. Smith talked about the importance of fire for wetlands.

BELOW: Students sit for a briefing at the site of their first large burn exercise at the Jones Center.
15 and 20 Forest Service people are involved in prescribed fires as 100% of their job. And, we’re probably involved in somewhere over 3,000 acres of fire, primarily due to aerial ignition—a helicopter dropping ignition sources.

But, like at the Jones Center, students get an understanding of the goals and objectives behind the burns. Aubrey says the class gets into the ecology of fires and fuels, weather readings, wind direction and smoke issues. It’s an intense week; Monday is a travel day, with the remainder reserved for safety briefings. Tuesday, Wednesday and Thursday the students are on the ground, taking part in burning several thousand acres across the property.

**BEYOND THE CLASSROOM**

During the week he spends with students, Aubrey says he does notice a change in some—they get what he calls the “fire bug.” The red card they obtain during the class opens up opportunities to go out west and work as a wildland firefighter. Or, if a student wanted to stay near home for the summer, they could connect with consulting land managers and offer to help with their burns.

Either way, the classes create a baseline of experience that students can build upon.

Ben Hornsby (BSFR ’03, MS ’06), a forester with the U.S. Forest Service, works with Aubrey to provide the students’ red card certification. Hornsby says he wishes he had the same opportunity when he was a student. At the time, he knew he wanted to work with fire, and paid out-of-pocket to receive his certification after graduating. From there, he searched for opportunities to gain more experience and eventually landed a full-time job as a wildland firefighter.

“I worked on a shot crew in Montana, as a senior firefighter out in Florida, then the opportunity came up and I started working where I am now, which is in the Athens Prescribed Fire Lab,” he says. He works with a team to move fire behavior models into the next generation, and also assists with operations at all national forests. Recently, his research has taken him to Osceola National Forest, Everglades National Park, Fort Stewart and Eglin Air Force Base.
Current fire behavior prediction systems were developed out west, with kind of the worst-case scenario in mind. And the fuels are completely different in the west than they are in the east,” says Hornsby. “We prescribe fire here in the east as much as they get in the west. They’re mandated to use these models, but they don’t work in southern fuels and humid environments. So, we’re trying to revamp how the prediction systems work to incorporate different fuels and moisture levels, and then we can couple fire behavior with atmospheric interactions.”

But Hornsby adds that private landowners and non-governmental organizations play a large role in prescribed burns across the Southeast. He estimates between 6 million and 10 million acres of privately owned land is treated with prescribed fires every year.

As a result, leaving college with direct experience in prescribed fire is a key component to any future land manager’s toolbox.

“I think it’s imperative,” adds Hornsby. “If you think about it, whether you go into a professional fire job or not—whether you’re a forester, a consultant, a private landowner, a wildlife biologist—pretty much most landscapes in the Southeast are fire-dependent. So, if you’re trying to manage something to the best of its abilities and maintain high biodiversity and forest health, having a healthy forest is imperative.”

Porter, who recently graduated with fire experience, agrees.

Even with his prior experience with wildfires, Porter is glad to now have an understanding of fire’s effects on southeastern ecosystems.

“I look forward to fighting fires in Georgia, for a state agency,” says Porter, who recently began a job as a forest manager with the Georgia Department of Natural Resources. In the position, he’ll be helping landowners determine the best options for managing their property, offering cost-share advice and connecting them with initiatives to plant trees. Along with the class at the Jones Center, Porter also took the Georgia Forestry Commission class to become a certified prescribed burner.

Bottom line, he adds: Get as much experience as you can.

Campbell, Clabo and Aubrey all agree that interest in prescribed fires among students is increasing. The science has evolved in the past generation, from a focus on preventing large-scale forest fires to understanding the benefits that come with a burn. There’s economics, logistics and public perception to consider, too. And while large-scale timber productions tend to rely more on herbicides or mechanical methods of controlling the understory, fire remains one of the most cost-efficient methods to maintain forests across the Southeast.

“But a landowner can have mixed objectives—they’re growing timber, but they’re also managing for wildlife, for example. They can be open to using fire,” says Campbell. “And it’s not just about managing for wildlife. Wiregrass, for example, needs fire to reproduce effectively, as well as pine regeneration. Not everyone is growing loblolly pine on tight spacing; there’s a lot of different types of species that it’s managed for.”

Students, led by Mark Melvin, survey their afternoon’s work.
ALL FIRED UP

Back at the Jones Center earlier this spring, Melvin had a feeling the air would improve. With their gear on and tools loaded into the back of the truck, the group headed toward their first burn site. Then, gentle raindrops began to fall.

Melvin shook his head, undeterred. In just a few hours, the numbers swayed one way, then another. But the sprinkle was temporary, and after lunch the sun appeared.

It was go time.

Melvin went over the burn plan with the students before sparking the first flame. “We’ve got our area on a map—26 acres. We have our timeframe. We looked at the weather stats and got our permit. What are we going to affect? A bunch of pine trees,” says Melvin, who has been tracking South Georgia’s weather for decades. He knows its tricks. “OK, let’s go.”

Working in groups of four, the students took turns tracing burn lines through the stand of longleaf, carrying tools and drip torches and watching as the fire began to take hold. It was subdued—the air was still moist and the breeze had died down—but still enough to give them a sense of how a fire can move across a property.

“For me, this is an ideal setting,” says Justin Hill, a master’s student, reflecting on the day’s burn. “The classroom is good, and you need that aspect of it. And everyone who’s talked has done an exceptional job. I didn’t have much working knowledge on the different types of approaches you can do for burns, and the different results you can get. I’ve learned a lot in everything we’ve gone through.

In almost two decades, Melvin says the philosophy behind the experience remains the same: Give students the opportunity to learn about fire in a specific ecosystem.

What they walk away with goes well beyond a line on a resume.

“We bring university students here for a unique experience, to immerse them in the world and ecology of fire—in particular, in our part of the world,” Melvin adds. “This is something you can’t do anywhere else.”
Stewards of the shoreline

In a small office on the Georgia coast, a handful of graduates are keeping watch for potential environmental damage wrought by the Golden Ray cargo ship.
The view out Jared Flowers’ office window has changed a bit in the past year.

Flowers (BSFR ’04) is marine biologist supervisor for the Georgia Department of Natural Resources Coastal Resources Division. Last August, he could see boats drifting by as they headed out of Oglethorpe Bay and Brunswick’s port. But today, the view is dominated by barges, cranes and a 665-foot cargo ship lying on its side.

“It happened over a weekend, in the middle of the night,” says Flowers, recalling the evening in September 2019 when the ship, loaded with about 4,000 cars, capsized and caught fire in St. Simons Sound. “My wife and I saw the news reports and we hopped in our car. We drove over the bridge to get a good view of the sound and we were like, ‘Wow.’”

From that moment forward, the professional landscape for Flowers and his coworkers changed as dramatically as the view. The Coastal Resources Division, a team of about 60 professionals, is tasked with managing Georgia’s marshes, beaches and marine fishery resources. So, when a cargo ship capsizes within view of all of these, they’re going to be involved.

But along with their care and diligence for the marshes and fisheries along Georgia’s coastline, several key decision-makers in the Brunswick office also share a connection to the University of Georgia. Flowers’ supervisor, Carolyn Belcher (PHD ’08), is chief of marine fisheries for the Coastal Resources Division. Her supervisor, Doug Haymans (BS ’90) is director of the division. And Warnell graduate Clay George (MS ’02), is a senior biologist for the agency.

Since September, they have been working alongside representatives from the U.S. Coast Guard, Gallagher Marine and, more recently, the Georgia Environmental Protection Division to assist with cleanup and salvage of the wreck. “It gives you an appreciation for other people’s field of science,” says Belcher. “For something like this, the responding agency is typically the EPD, because they are involved in the environmental contamination part of it. But EPD is not trained in the ecological impacts. We’re looking at it from the perspective of how much marsh was affected? Does it impact the fisheries? For us, there’s a whole suite of people involved.”

Crews onboard the work barges Farrell (left) and Columbia work to clean residual fuel oil from tanks inside the Golden Ray last December in St. Simons Sound. The work barges provide a platform for personnel and equipment to perform as they prepare the wreck for removal.
IMPORTANCE OF TRAINING

Agencies plan for a number of horrific events—natural disasters or hostage situations, for example, might be a worst-case scenario you can wrap your head around. In federal agency terms, it’s called “critical incident management training,” and it involves taking a group approach to managing a disaster. When a variety of agencies are involved, each handles a portion of it, with cooperation between the agencies coming through a command center. That central component involves all the leads on the project, striking a balance of numbers and expertise to keep it manageable.

“I’ve been in my current position two years and I think the training was during the fall of my first year,” says Belcher. “It gives functionality within that group; we’ve all been exposed to that training.”

In the case of the Golden Ray, there are three main parties handling the operation, adds Haymans: A “responsible party,” or the private company responsible for the ship; the federal party, this case the U.S. Coast Guard; and the state party. This was Haymans’ team until recently. Now that the cargo ship is largely contained and is now being prepared to be cut apart, the state Environmental Protection Division now represents Georgia during the recovery efforts.

Which means Haymans and his team can focus on monitoring the shoreline for oil or other environmental issues. Termed SCAT for shoreline cleanup assessment team, this responsibility involves going out into the marshes and surveying for potential pollution. And this is where the Coastal Resources Division shines, as its biologists have specific knowledge of the area’s geography and tides.

“I manage part of the group under the marine fisheries section. Biologists who work for me have most of the experience working in and around the sound. We have the local knowledge,” says Flowers. “We have tricky tides here and some of them who have worked the area know where there may be sandbars.”

But even the SCAT trips are a team project—crews represent all parties involved. If pollution is found, an assessment is made and the group has to sign off on the assessment. Then, the group looks at remediation solutions.

LEARNING SOMETHING NEW

But Flowers admits, this is a new aspect of his job. When the Golden Ray came to a rest on its side, Flowers had been in his position just under a year. Until then, he was primarily looking at fisheries and sampling fish for management plans.

Belcher, too, has taken on new responsibilities in the past year—although, as an administrator, her role was assisting with logistics or connecting others working on the project to the right sources. She previously held Flowers’ position and came up through the ranks as a field biologist. When the central command center was set up, Belcher found herself sitting at a table in a hotel conference room assisting with reviewing documents or getting the right equipment into the right hands.

But she says she appreciates the overall experience. And thankfully, the ship hasn’t brought the environmental damage it could have.

“We have sensitive areas, like Bird Island. (The contractor) put a boom around the island to keep it protected. If we had a more active biota kill, in terms of the fish, we probably would have been more involved,” adds Belcher. “And, we have a coastal ornithologist and marine mammal biologist who are being attentive to what’s happening with the marsh birds and marine mammal populations.”
The plan was to stabilize the cargo ship, then position a crane over it to cut through the boat in sections, removing swaths of metal and carrying them away for scrap. Ideally, this would have been done before June 1, the start of hurricane season. But with equipment delays and now COVID-19, progress has stalled. At press time, nine members of the crew set to dismantle the ship had tested positive for the coronavirus, and with hurricane season looming, questions remain about the value of pushing forward on a skeleton crew.

While the next steps remain in flux, though, Haymans says he’s thankful for the training he and his team received. It put them in step with their federal partners and made for a smooth response to something that could have been an environmental disaster.

“Even though it’s not our normal operations, it would be nice to get some training in oil spills or these types of environmental disasters,” notes Haymans, when asked what he had learned from the experience. “But, it’s fortunate that in the past 18 to 24 months, DNR has taken critical incident management training very seriously. We’ve had enough hurricanes, tornadoes, snowstorms and floods to know that we have an infrastructure to work with other entities, which prepared a lot

LEFT: Workers are dwarfed by the size of the Golden Ray as it sits on its side in St. Simons Sound. BOBBY HAVEN/THE BRUNSWICK NEWS

BELOW: Beachgoers enjoy the water while the Golden Ray lays on its side in St. Simons Sound. TERRY DICKSON/THE BRUNSWICK NEWS
GHOSTS IN THE MACHINE

While one population of red wolves struggles, evidence begins to mount of distant relatives to the west.

Alumnus Joey Hinton hasn’t given up on them, even though the clock is ticking.

BY KRISTEN MORALES
Red wolves are standing at a crossroads. To the east lies a successful project to bring the endangered animals back to their historic range—now at a standstill. To the west lies a potential population that has flown under the radar until recently, with locals and wildlife researchers joining forces to learn more about them.

And Joey Hinton (PHD '14) is right in the middle, ready for the journey.

Hinton, who has spent more than a decade researching the reintroduced population of red wolves in eastern North Carolina, is now part of a team investigating new discoveries of canids in Texas and Louisiana. Although there are differences between managing a reintroduced population and surveying for lost ones, both force difficult conversations about how to define a species—a situation the red wolf is all too familiar with.

But that doesn’t mean Hinton won’t give it a go.

“We draw different conclusions on what red wolves are because different researchers use different criteria to define species,” says Hinton, a wildlife ecologist and postdoctoral researcher at the State University of New York College of Environmental Sciences and Forestry. “At some point, we’ll come together on this issue of what a red wolf is, but everyone agrees that red wolves are unique and worth saving.”

**RESTARTING AND RELOCATING**

Fourteen of the last red wolves known to exist are called the founders.

Originating from eastern Texas and western Louisiana, the founders represented what was considered the best definition of a red wolf, selected out of hundreds trapped by the U.S. Fish and Wildlife Service in the late 1970s. After an initiative to boost their numbers through a captive-breeding program, the founders’ progeny were reintroduced to coastal North Carolina, where they were given an expanse of land to establish new generations of wild red wolves.

Historically, red wolves have existed across the Southeast. Over time, humans displaced or killed them, pushing populations into smaller pockets. When the U.S. Fish and Wildlife Service initiated the plan to capture as many of the remaining red wolves in Texas and Louisiana to begin a captive breeding program, reintroducing wolves in North Carolina offered a new beginning for the species.

Two decades after the red wolves were introduced, the red wolf population had grown to more than 150. But this didn’t mean they were in the clear. Despite their status as endangered, they were legally protected as “threatened” under their non-essential population classification, meaning that if a landowner happened to kill a red wolf on their land, there were little to no repercussions.

Complicating matters were coyotes. Under normal conditions, they’re not a problem because red wolves do not allow coyotes in their territories—a contrast to gray wolves that commonly tolerate them. In fact, red wolves will breach coyote territories and displace them to acquire space, effectively reducing coyote presence in areas. Problems arise between red wolves and coyotes when humans kill red wolves, forcing wolf packs to disband, and facilitating hybridization between surviving wolves and coyotes.

For example, if the male half of a breeding pair dies, the surviving female might settle for the next-best thing: an available coyote. “With no male wolves available, she’ll likely fail to breed or find a suitable coyote to breed with. So, you either have 0% overlap or 100% overlap in territories between red wolves and coyotes because wolves will either displace or breed with coyotes depending on the situation,” adds Hinton. “So, if we were to establish a mosaic of wolf territories, with available wolf mates that can be drawn from a surplus population of transients, red wolves would push coyotes out. Red wolves are the reason why coyotes were absent from the eastern United States for the past 10,000 years. Once we extirpated red wolves and put surviving wolves at a numerical disadvantage, coyotes invaded the Southeast.”
Just as the project seemed to be hitting the right marks, it ran into a speed bump. A few politically connected landowners began to push back against the red wolf, and their numbers began to decrease due to illegal killing of wolves. This increased coyote numbers in the recovery area. Warnell wildlife sciences professor Michael Chamberlain recalls watching issues arise as more voices from outside the scientific community began to weigh in. Chamberlain first lent his expertise to the project in the 1990s as part of a panel of experts tasked to develop plans to stem wolf losses.

“Once the Fish and Wildlife Service saw the coyotes were breeding with wolves, they convened a workshop to talk about how to stop this,” says Chamberlain. “The outcome was to have the Fish and Wildlife Service capture coyotes and sterilize them and release them. And then, as wolves go in from captive units, you go in and remove the coyote and replace it with a wolf.”

It was a labor-intensive approach, though, and required low anthropogenic mortality for red wolves and sterile coyotes to be effective.

When environmental groups won a lawsuit against the North Carolina Wildlife Resource Commission to ban nighttime hunting of coyotes in eastern North Carolina, leadership in the U.S. Fish and Wildlife Service pulled back support for the project. Consequently, red wolf numbers precipitously declined from 120 wolves in 2014 to about 12 today.

But Chamberlain and Hinton had their data. They knew the ins and outs of the project. So, what do scientists do? They publish their findings.

“I was committed to the science about the animal, and I was committed to Joey because he was my student and I wanted him to be successful. And once we collect the data, it’s a disservice not to publish the data,” says Chamberlain. “Our work will essentially be the penultimate work on this species ever. Because you’re not going to do behavioral work on red wolves in the wild ever again. The only thing you’ll ever see written about this animal will be genetic stuff. That’s it. Because you will never be able to study wolf habitat use or home range sizes or denning ecology—that stuff we published, you’ll never be able to do again.”

IT’S IN THE GENES

Genetics are where the red wolves’ story takes a turn.

Because around the time the North Carolina project began to fall apart, a resident of Galveston Island, Ron Wooten, emailed a picture to wolf biologist David Mech, who in turn forwarded the image to Hinton and a collection of biologists, genetic researchers and red wolf proponents. In it, a pack of canids with large heads and a dark reddish tint to their coats can be seen lounging, playing and howling.

Could they also be red wolves?

Chamberlain and Hinton were intrigued and urged Wooten to find tissue samples to genotype. Wooten had just that—two roadkill samples he’d saved in his freezer for this opportunity—and sent them to Bridgett von-Holdt, a biologist at Princeton University and a research collaborator of Chamberlain and Hinton. “I was most grateful for the interest exhibited by these folks, as these animals were

Joey Hinton fits a GPS collar on a coyote in March 2011. The animal was released as a sterile placeholder to prevent fertile coyotes from establishing territories in the recovery area. JOEY HINTON
very unique,” says Wooten.

VonHoldt studies evolutionary genetics and genomics of North American canines, specifically wolves and coyotes. She’s discovered evolutionary relationships in canines, eastern wolves, red wolves and gray wolves. Genetics is one tool to dig deeper into the relationship between these animals, she says, although that picture can be clear as mud.

“Many agencies want to know if the red wolf is a distinct species. When was there gene sharing between red wolves, gray wolves, eastern wolves and coyotes? All of those things we can estimate with genetics, but much of the findings are challenging to interpret. There’s been a lot of genetic exchange between red wolves and gray wolves and coyotes in the past 10,000 years or so,” she says. “Also, agencies are revisiting their criteria for defining a species. Does that mean you have distinction in just genetics? Or is ecology and behavior also important? Everything has been an ongoing conversation.”

The red wolves we have today descended from the founders, both in captivity and in the wild, are genetically diverse—to a point. But, vonHoldt says, by using those genetics as the definition of a red wolf, it’s not the full picture of the animals and their history.

When those two samples were tested by vonHoldt’s lab, the results revealed a bit more of that picture. They showed evidence of “ghost alleles,” or red wolf genes that are different from those in captivity or released in North Carolina. Wooten collaborated with vonHoldt, Chamberlain, Hinton and others on a groundbreaking study, released in the December 2018 issue of the journal Genes, that detailed their findings.

At the same time, another group of scientists used a different methodology to identify red wolf ancestry in scat collected in Louisiana. It’s presumed the last red wolves in that corner of the Southeast went extinct due to hunting or hybridization with coyotes—but what if they didn’t?

Now, a study beginning later this year will survey canid populations along the Gulf Coast for red wolf ancestry. Under direction of the U.S. Fish and Wildlife Service, the National Academy of Sciences put out a call for research in Texas and Louisiana. Hinton teamed up with another one of Chamberlain’s former graduate students, Kristin Brzeski at Michigan Technological University, to start the project this fall in Louisiana, with the goal of connecting the project with Brzeski’s ongoing Galveston Island project to get a fuller picture of red wolf genetics across the region. Melissa Karlin with St. Mary’s University in San Antonio and Wooten, a biologist by training, are also assisting with the research.

AN UNCERTAIN FUTURE

Still undetermined is how the recent wolf discoveries fit into the overall journey of the red wolf. Are they hybrids? Or something more?

Hinton says he and vonHoldt use different criteria and come to different conclusions on what the animals are. But whether they’re a hybrid species, holding genes from a bygone era, or true red wolf descendants that have been forced to mix with coyotes, the animals deserve a chance to remain on the landscape. “Regardless of our positions on the origin of the red wolf, there are ecological and evolutionary processes that are unique to the wolf and to the Southeast. Protecting the red wolf is a way of preserving those processes on the landscape,” he adds.

How red wolves are defined taxonomically also ties into their future...
and their protected status.

In 2018, the U.S. Fish and Wildlife Service published a new species status assessment and five-year review for the red wolf. The review recommended no change in the endangered status, but it also began work to determine whether the red wolf represents a “taxonomically valid species designation.” Although the National Academy of Sciences concluded that the red wolf is a distinct species, the USFWS proposed a new rule for the North Carolina project that would reduce the recovery area by 87% and the reintroduced red wolf population by 90%, restrict recovery efforts to federal land only in Dare County, and allow the legal take of red wolves that traversed off those federal lands.

“By restricting management to Alligator River National Wildlife Refuge and the Dare County Bombing Range, we will ensure we can better reduce external threats and monitor the environments surrounding these wild wolves,” says Greg Sheehan, the principal deputy director for the U.S. Fish and Wildlife Service, in a news release. “A recent species status assessment informed us that past strategies were not effectively leading to recovery, so we believe that a concerted effort in a managed area will help.”

But Hinton disagrees, because the project achieved 70% of its recovery goals when the population reached 155 red wolves. The recent population decline is a result of changes in management of the wild population. Without the red wolf adaptative management plan, plus the loss of several USFWS biologists who were never replaced, the project floundered.

In a statement to the U.S. Senate in February 2017, Gordon Myers, executive director of the North Carolina Wildlife Resources Commission, testified that the Endangered Species Act needed to be modernized “to meet today’s restoration challenges” by allowing states more control. Myers, who retires from his post at the end of August, did not return a phone message seeking comment about the red wolf project.

VonHoldt says she hopes there is space on the landscape, somewhere, for the red wolf.

“The red wolf is a unique carnivore on the landscape that has a very distinct form and function and genetic signal,” adds vonHoldt. “I believe that biodiversity is important to retain, and we’re at a point where we can decide to retain it and preserve it. I’m worried the longer we sit without action, the greater the chance we face losing our chance to keep red wolves on the landscape.”

Hinton is now working on a paper that offers advice on how to move forward with recovery efforts. There is a template for success—he participated in that success in North Carolina, and it can be revived. But there needs to be willingness by the USFWS to make it to work.

Also, he says, there is strong support in eastern North Carolina for red wolves and growing support for them in east Texas and western Louisiana. “Compared to 15 years ago when very few people knew about the recovery project, there is a lot more public support for the red wolf today because of the recent headlines. The more eyes on the project, the better for the wolf,” he says.

“I think you’ll see new efforts for recovering this animal. I don’t know if that’s two years down the road or 10 years, but I think the Fish and Wildlife Service will eventually be forced to do something.”
Celebrating Excellence

Every spring, Warnell welcomes guests to the Spring Awards Banquet to celebrate the achievements of our students and to thank our donors for their outstanding generosity. Due to the coronavirus, this year’s event was canceled, but we still celebrated the recipients and their benefactors.

We look forward to gathering next spring to continue the tradition. The event is a time to honor those who support Warnell—and embrace the next generation of natural resources professionals.

Donors Make a Difference!
Scholarships provide students with access and opportunities that can be life-changing. To learn more about how you can impact the life of student through a scholarship, contact Bridget Harden, director of development, at bharden@uga.edu.

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Ben Gochnour

N.E. Georgia Quail Unlimited Scholarship
Calvin Ellis
Cody Scarborough

National Wild Turkey Federation Georgia Scholarship
Patrick Wightman

Arlene C. and Tilden L. Norris Endowed Scholarship
Jack Derochers
A new professorship at Warnell will provide a clear benefit for both the forestry program as well as Georgia taxpayers.

The Stuckey Professorship in Forest Economics and Taxation, established with support from W.S. Stuckey Jr. (BBA ’56, LLB ’59), provides dependable funding for research and travel into this critical area of forest landownership. The professorship has been awarded to Warnell faculty member Jacek Siry, a longtime professor in the Harley Langdale Jr. Center for Forest Business.

This endowment not only acknowledges Siry’s leadership in the area of forest taxation and economics, but it also provides critical funding for graduate student stipends, research materials and travel assistance in this area.

The professorship was made possible through the efforts of Warnell alumnus Wade Hall (BSFR ’91), Stuckey Timberland Inc. and Pollard Lumber Company coming together in support of Warnell and its mission. The professorship also works alongside a new support fund created by Superior Pine, the Superior Pine Products Forest Economics and Taxation Support Fund. This fund was made possible through the efforts of Warnell alumnus Andy Stone (BSFR ’74), former president of Stuckey Timberland and more recently with Superior Pine Products.
Alumni Steering Committee
The Warnell Alumni Steering Committee is an alumni service organization designed to bring together graduates to encourage their continued involvement and support of the Warnell School. The 13 members work together to support events, programs, and philanthropic initiatives that help the school accomplish its mission. Though one such cornerstone event series, the spring alumni receptions hosted by the committee, was canceled, members remain available and welcome ideas, suggestions, or outreach from any alumni. The committee also encourages nominations for UGA’s 40 under 40, Bulldog 100, and Warnell Outstanding Alumni awards, so please reach out to a committee member with ideas for nominees. Meet the members and learn more at warnell.uga.edu/alumni/connect.

Young Alumni Committee
Warnell’s Young Alumni Committee works to support the school by assisting with fundraising efforts, encouraging participation of recent alumni at events, hosting events and initiatives, engaging and mentoring current students, and building leadership skills of young alumni and students. Each year they host a spring Sporting Clays Tournament and fall Parker Memorial Golf Tournament. Through the golf tournament and support from the Parker family they have created three endowed scholarships and named a room. Although this year’s sporting clays tournament was canceled, the committee is making plans for the golf tournament. It may look a little different but will still support and celebrate Warnell.

New YAC Members!
Shawn DeRome, BSFR ’14, MFR ’16, is a business development manager for the Timber REIT, Rayonier, Inc. and lives in Fernandina Beach, Florida with her husband and spoiled Springer Spaniel, Maggie Bell. In her spare time, DeRome enjoys all things that get her back outside – hunting, shooting and gardening, to name a few!

Blake Sherry, BSFR ’17, is a procurement representative for International Paper Pensacola, working in the Florida Panhandle and lower Alabama region. In his free time, he enjoys just about everything you can do outside and is always looking for an excuse to visit Athens. Sherry wants to give back to Warnell while on the YAC so current and future students can be positioned for success after Warnell the same way he was.

Save the date for Homecoming Weekend
October 2–3, 2020
CELEBRATE COMMUNITY

WARNELL SCHOOL OF FORESTRY AND NATURAL RESOURCES
HOMECOMING 2020
THE UNIVERSITY OF GEORGIA

Featuring the annual J. Reid Parker Golf Tournament on Oct. 2!
All invitations and details for the golf tournament and other celebrations will be shared via email and electronically.

Don’t miss out!
Email aprilmcd@uga.edu to ensure your contact info is correct.
Dana Bloome learned about forests from her father, Larry Bloome Jr., owner of D&L Logging in South Carolina. “Those experiences we had in the woods—they were amazing and still stick with me to this day,” she says.

But growing up, her classmates didn’t always feel the same way. “When I was younger, I sometimes got picked on because my dad was a logger. … And I just thought, some people just hate it because they don’t understand.”

So, Bloome began thinking about solutions. She thought of her dad, who she considers her own, real-life superhero, and realized the answer could come through books for kids.

And so, “The Little Foresters Adventures” was born. In the first installment, “The Big Thinning,” Larry the Logger helps a group of friends save a dying forest. The book tells the story of four kids who, with their hard hats, vests and boots, set out on a Saturday morning to play among the trees.

Published earlier this year, “The Big Thinning” is the first of what Bloome plans to be a series blending kid-friendly adventures with real-life lessons about the importance of the forestry industry. The goal is to give both children and adults a story that’s entertaining as well as informative.

These days, Bloome now runs a forestry business, Family Tree Forestry, with her brother and fiancé and contracts her father to perform harvest activities. Having seen it from multiple sides—even running some of her dad’s equipment on occasion—she has a deep appreciation for the challenges and teamwork involved in forestry.

To purchase a copy of the first “Little Foresters Adventures with Larry the Logger,” “The Big Thinning,” visit forestryinbloome.com, or visit Forestry In Bloome on Facebook.
The value of forested land isn’t just in its timber—it’s also in its legacy. While generations of foresters have skewed male, times are changing; women are buying, inheriting and managing more land than their ancestors.

And Danielle Atkins is here to shepherd them through the process.

Through workshops, an online academy and a symposium planned for 2021, Atkins and her consulting firm, Land and Ladies, is connecting with female landowners across Georgia and the Southeast to educate them on managing forestland and empower them with confidence to get a hand on their land. She focuses on three tenets that support her message and the goals of Land and Ladies: Enlighten, empower and enroot.

“Enlighten is the education aspect. Empower is the events we’re hosting, many of which are partnered with Warnell. We’re starting with a series of workshops where women will learn various forest management needs, from reforestation to harvesting basics, and gain the confidence to start being engaged with their land,” she says. “But enroot is probably my most favorite word. It shows them their legacy and potential.”

In a way, it makes sense that Atkins has found her way to a career that blends education, science and the outdoors. It’s what first drew her to Warnell as an undergraduate, when she was considering a career as a science teacher. But she also knew that she didn’t want to spend her days inside. She became a wildlife sciences major but continued to explore her options.

During her senior year, she helped re-launch the Cypress Knee yearbook, which meant fundraising for its publication. Through this experience, and being a member of the UGA Forestry Club, she met influential forestry alumni and learned the range of expertise it offered.

She was hooked, but it came with a catch. Offered an internship at Disney that aligned with her environmental education interests, she had to make a decision: Continue down that road or try for a last-minute internship in forestry that would pave the way for her master’s degree.

“I went to a GFA event determined to get an internship. It was April, so most were already decided by then,” she says. “But I walked up to a representative from Weyerhaeuser, introduced myself and said, ‘I need summer field experience.’ They happened to have an intern drop out at the last minute. I spent the summer in Alabama, and it was perfect.”

After her acceptance into the MFR program, Atkins interned with Plum Creek—where her soon-to-be husband, Daniel Atkins, also interned—and then the couple moved to Brunswick, Georgia, where he continued to work with Plum Creek until the company’s merger with Weyerhaeuser; he continues to work there today. Atkins landed a job with the Georgia Forestry Commission, and after the birth of their first child, she worked with McIntosh SEED to consult with African American forest landowners.

While the McIntosh SEED program works one-on-one with landowners, Atkins’ Land and Ladies takes the form of small groups, workshops and networking. The public health crisis caused by COVID-19 allowed her to further hone her business concept by incorporating virtual meetings.

The first event, The Woman Landowner Workshops, launches Oct. 1 in Athens and is produced in partnership with Warnell and BMT. January will see the first virtual event, The Woman Landowner Academy, in partnership with the Georgia Forestry Association. Her capstone event, The Woman Landowner Symposium, is planned for April 22-23, 2021.

Land and Ladies is still just beginning to grow, but its roots run deep. “It’s an opportunity to grow a greater network for women,” she adds. “They can come together and kindle relationships, which for women is one of the most critical points of what I’m doing—building that relationship.”
ALUMNI SPOTLIGHT

Nico Arcilla (PhD ’08)
Libby Mojica (MS ’06)

PAYING IT FORWARD

You never know when Warnell paths will cross.

At last November’s Raptor Research Foundation meeting in Colorado, Nico Arcilla ran into Libby Mojica. The two overlapped briefly during their time at Warnell—they recall meeting during an Audubon Christmas Bird Count—but went their professional ways.

Now, years later, their shared love of birds of prey drew them back together, but the circumstances were vastly different. Arcilla had only planned to attend the raptor conference in support of her friend, Oscar Beingolea, a Peruvian expert in peregrine falcons. Arcilla had assisted with Beingolea’s study that had been accepted for publication in the Journal of Raptor Research, and she convinced him to present his findings at the November meeting.

The study was important: It was the first peer-reviewed paper linking peregrines breeding in North America with their wintering grounds in Peru, showing new dimensions of the birds’ migratory connectivity and timing.

But, tragically, Beingolea died of pancreatic cancer just before the conference. Arcilla was devastated. But she also knew it was important to keep telling his story and sharing his work. “At the awards ceremony I thought, what could we pay tribute to him by supporting the collaborations that are possible between citizen scientists and professional researchers?”

That’s when the meeting of Arcilla and Mojica was crucial. Mojica, president of the Raptor Research Foundation, was open to an idea that Arcilla proposed: A grant in Beingolea’s memory. They began fundraising and are now more than halfway to their goal of establishing an endowed annual grant to support field research on raptors in Latin America and the Caribbean. Thanks to support from the Raptor Research Foundation, the first $1,000 award will be given this year.

Arcilla received a number of grants and fellowships during her years at Warnell, and that money opened up doors she hadn’t even considered. For example, a Tinker Foundation Award from UGA’s Latin American and Caribbean Studies Institute helped her set up her dissertation research on Amazonian birds. Through that experience, she realized how few opportunities there are in many parts of the world to fund field work or assist with journal publications.

“One thing I learned from my experience in Peru is how much of people’s knowledge of the natural world never makes it into scientific journals,” she says. “Oscar spent his entire life tracking these birds. He loved doing research. People like that, who are so passionate, inquisitive, and dedicated, make all kinds of discoveries that can teach and enrich us all. We hope this grant will make it a little easier to do just that.”

For more information or to donate to the grant, visit raptorresearchfoundation.org.
ALUMNI SPOTLIGHT
Rusty Cobb (BSFR ’01, MS ’06)

SUPPLYING WOOD DURING A PANDEMIC

When Rusty Cobb was considering what he wanted to study in college, a family friend who worked in forestry helped to point him to his eventual career path. “I’m happiest outdoors, in the woods, so making a career out of something I love was an easy decision,” says Cobb, a timber marketing manager for Rayonier’s Coastal Resource Unit based in Yulee, Florida. He’s responsible for identifying, negotiating, and delivering timber on 166,000 acres in southeast Georgia and northeast Florida.

Like many people in the past few months, Cobb didn’t know how critical his job would become as COVID-19 swept across the country. He quickly became an integral part of meeting the increased demand for timber used to make wood-based products, especially toilet paper, paper towels, medications, hand sanitizers, soaps, wood pallets and cardboard shipping boxes, and, of course, lumber and plywood to make emergency structures.

“I’m proud to help maintain the flow of timber used as raw materials by the mills and manufacturers who are tasked with keeping pandemic-related items in the marketplace,” he adds. “But marketing trees in a pandemic is not something you learn in college!”

Cobb is pleased he’s working for such a highly respected global company that takes great care in managing its renewable resource: trees. Rayonier is a real estate investment trust that manages 2.6 million acres of timberland across the United States and New Zealand. In the U.S. South, where Cobb is based, Rayonier grows loblolly, slash, and longleaf pine forests used primarily for pulpwood and sawtimber.

When Cobb began his Warnell classes and was a bit overwhelmed by the transition from a small town in middle Georgia to a big-city university campus, he remembers a professor, Dr. Bruce Bongarten, who took the time to help him adjust. Cobb says it was a pivotal moment that gave him the support he needed to succeed.

“UGA gave me the best possible knowledge base so I was ready to begin a career in forestry,” says Cobb. “But what I also realized, and continue to see, is that a UGA degree means I earned a well-respected brand in the industry. It means I received a high-quality education.”

—BARBARA FARNSWORTH
DOUG MOORE (MFR ’15) married OLIVIA (GEELS) MOORE on May 30 at Moss Mountain Farm outside Little Rock, Arkansas. Doug is a senior investment associate with Prudential Global Investment Management’s Agricultural Finance and Investments Group, managing timberland assets in the eastern United States.

KATIE MCMANNERS (BSFR ’16) and J.J. BAILEY (BSFR ’17) are engaged to be married this fall.

CHARLIE TODD (BSFR ’16, MNR ’17) is the natural resource specialist for U.S. Army Corps of Engineers at Richard B. Russell Lake handling waterfowl management, white tailed deer population surveys, food plot plantings and wildlife damage management. He also began selling for Mossy Oak Properties of Augusta.

LANIER (FORSTER) CLEGG (BSFR ’18) married AARON CLEGG on Dec. 28, 2019, in Social Circle, Georgia. Forster is now pursuing a M.A. in journalism and mass communication (public relations) at UGA.

CAMILLE BENNETT (BSFR ’19) is the water conservation graduate assistant with the Athens-Clarke County Public Utilities Department and is pursuing a master of natural resources degree at Warnell.

DAVID ENDREDI (BSFR ’19) and JAMES WILLIAMS (BSFR ’19) were hired by Forest Resource Consultants as forest technicians. Their job duties include cruising timber for volume estimation for inventory, timber sales, and appraisals.

LANIER AND AARON CLEGG

2020S

WESLEY HOBBS (BSFR ’20) was hired by Forest Resource Consultants as a forest technician, where his job includes cruising timber for volume estimation for inventory, timber sales and appraisals.

LUKE POINDEXTER (MFR ’20) married MARGOT “KIRBY” CRUTCHFIELD on June 13.

from a Quercus alba tree salvaged by Jase, magnolia grandiflora leaves and branches and Pinus echinata boutonnieres. The couple now resides in Statesboro, Georgia; Jase is acquisition and lease manager of The Westervelt’s Atlantic Region and Tara is a kindergarten teacher at Metter Elementary.

JASE AND TARA BROOKS

Dick Field

ALUMNI SPOTLIGHT

COMMUNICATION IS ESSENTIAL

Dick Field pulls a dark green book from its shelf and cracks it open.

An art deco bookplate is pasted on the inside front cover, where, in black ink, is written the name of its former owner: B.F. Grant.

It’s one of several 1920s-era books in Field’s library—a collection that’s being slowly dismantled as he and his wife, Susan, begin to downsize. But each one holds a particular meaning, and Field still recalls pulling this book out of a box set outside the venerable Warnell professor’s office door.

Other books recall different memories—one, for example, has pictures of a fire tower where he worked for a summer. Others are vintage textbooks or reference guides used throughout his career at the U.S. Forest Service, the Georgia Center for Continuing Education or Athens-Clarke County.

Now in retirement, Field sees how skills learned in forestry tied it all together, whether he was crunching numbers or developing building plans. After getting his undergraduate degree and serving in the Army, a former professor recommended he consider the University of Georgia. He and Susan made the decision to move even prior to Field applying to Warnell. But before they had even settled in, opportunity called.

“We didn’t even have a telephone yet, and somebody came knocking on the door,” says Field. “It was somebody who worked at the (UGA) library, and they said they wanted Susan to come the next day and start work.”

Originally Field’s plans were to get his master’s and work in forestry consulting, but then he decided to pursue a Ph.D. and work in the quantitative area. He ended up with the U.S. Forest Service at a pivotal moment in its history. It was the mid 1970s and the United States was changing how it managed forests through the National Forest Management Act. Planning moved from unit-level to forest-level, and Field worked with forests in Georgia and North Carolina to develop the new management plans.

“It was getting more quantitative analysis in it,” he adds. “Foresters have got a very broad background in training. It’s math, science, English—you’ve got to be able to communicate.” This lesson was underscored by his first major professor, Archie Patterson, who made communication a key part of his training. He even built a classroom where students could be taped making presentations so they could be critiqued.

After about 14 years with the U.S. Forest Service, Field transitioned to the Georgia Center, where he ran the continuing education program for forestry and then managed the conference department. From there, he went on to blend his forestry, quantitative and management skills as the first environmental coordinator for Clarke County. Field was instrumental in getting the county’s green building initiative started.

At a recent event opening a new section of the Greenway—something he’s long championed—Field pulled aside one of the SPLOST staff and asked, “Are you still doing the green building?” “He said, ‘We’re still using the policy you wrote,’” Field said with a chuckle. “Things come and go. You see some things move in the right direction, like the green building. Others? They go in cycles.”
Earlier this summer, the village of Roiffe, France, honored George Merritt (BSF ‘35). Merritt was killed in action during World War II when his plane was shot down near the village on June 7, 1944. Residents have since named a school in his honor, and they mark his sacrifice during an annual ceremony on D-Day.
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— Steven Peter, South Paw Forest Products
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