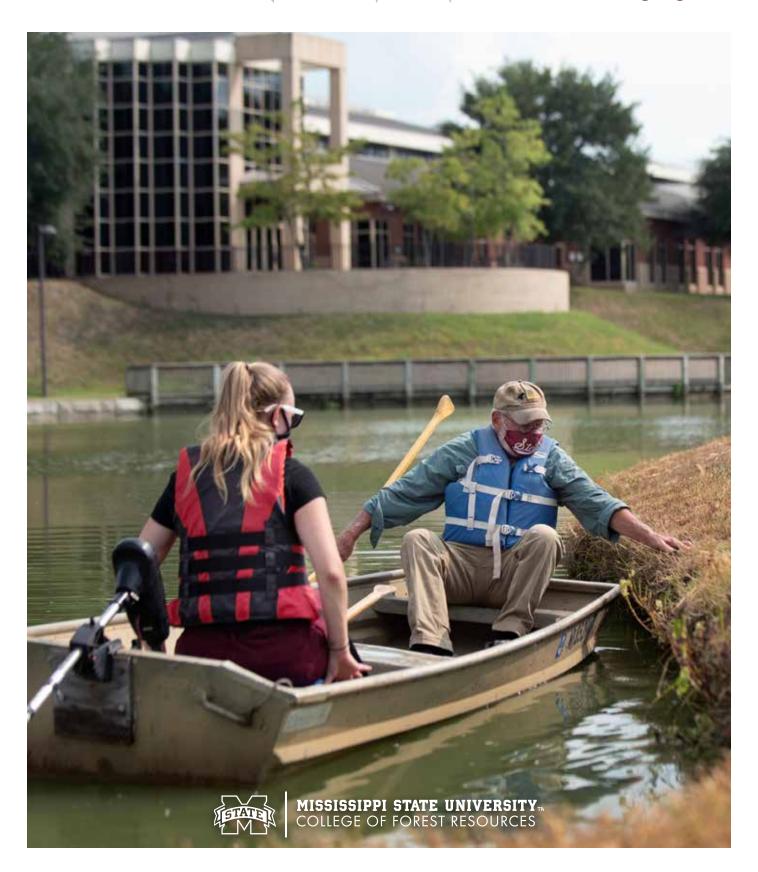
RENEW

2020-21



RENEW

COLLEGE OF FOREST RESOURCES ALUMNI NEWSLETTER 2020-21

| Mark E. Keenum | PRESIDENT, MSU |
|----------------|-----------------------|
| Keith Coble | VICE PRESIDENT, DAFVM |
| L. Wes Burger | INTERIM DEAN |
| lan Munn | ASSOCIATE DEAN |

CONTRIBUTORS

David AmmonAriell FainMegan BeanRuss HoustonVanessa BeesonLogan KirklandDominique BelcherReagan PostonKaren BrasherTaylor Vollin

The College of Forest Resources is a unit in the Division of Agriculture, Forestry, and Veterinary Medicine at Mississippi State University.

The mission of the College of Forest Resources is to promote, support, and enable the management, conservation, and utilization of forest and other natural resources to benefit the stake holders of Mississippi, the nation, and the world.



COLLEGE OF FOREST RESOURCES

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CFR BY THE NUMBERS

609

STUDENTS (FALL 2020)

480

UNDERGRADUATES (FALL 2020)

82

MASTER'S STUDENTS (FALL 2020)

47

PH.D. STUDENTS (FALL 2020)

71

FACULTY (FISCAL YEAR 2020)

140

DEGREES AWARDED (2019/2020)

84

FRESHMEN (FALL 2020)

25.5

AVERAGE FRESHMEN ACT SCORE (FALL 2020)

\$4,980,881.25

GIFTS (FISCAL YEAR 2020)

\$260,688

SCHOLARSHIPS (2019/2020)

30,729

ACRES IN THE BULLDOG FOREST (FISCAL YEAR 2020)

ON THE COVER: Graduate teaching assistant Vanessa Hoffman of Fayetteville, North Carolina, and Dr. Don Jackson, Sharp professor emeritus of fisheries, ready a boat for use in a limnology laboratory course at MSU's Chadwick Lake. Students are learning how to properly handle a boat, a necessary skill for hands-on learning of inland aquatic ecosystems. (Photo by Ariell Fain)

FROM THE **INTERIM DEAN**

GREETINGS FROM THE COLLEGE OF FOREST RESOURCES (CFR) AT

Mississippi State. It is my honor to serve this great college as interim dean and the Forest and Wildlife Research Center as interim director. I am a 28-year veteran of the CFR and have served as the associate director of FWRC for the last decade. While I am not a newcomer, I am new to this role, appointed at the retirement of Dr. George Hopper in June 2020. The university has a search underway to select the next dean and director of the College of Forest Resources and the Forest and Wildlife Research Center.

The year 2020 taught the world what we at CFR have always known: the importance of our natural resources and of being outside. While the global pandemic brought new challenges, we did what we do best, we got outside. Our faculty, staff, and students communicated, collaborated, and innovated to find creative ways to continue the important work as one of the country's leading natural resource university programs.

Our faculty rose to the challenges presented in the 2020-2021 school year. They moved all courses online in Spring 2020, and then offered a hybrid of online and in-person delivery for Fall 2020 and Spring 2021, accommodating students who were quarantined. Our faculty held classes outside of Thompson Hall under the large oak trees when weather per-mitted and did everything they could to ensure a great academic year. Our forestry faculty held two summer field programs in 2021, as we were unable to hold the program in 2020.

Many of our students were able to work this summer in intern-ships and professional experiences, something that students largely missed in 2020. Thank you to so many of our alumni and friends who employ our students for this hands-on experience, consid-ering these unprecedented times.

As we anticipate a great academic year, our alumni and friends continue to provide unwavering support. In this issue of Renew, we highlight a generous gift from the Mariann Cooper family to establish an open pine grassland ecosystem fund. Jeff Cooper, Mariann's son is a two-time alumnus and professional forester who established this estate gift in honor of his mother and the open pine grasslands for which they hold fond memories. A fund for research excellence has been established to honor Dr. George Hopper, our former dean and director. Dr. Hopper was a stalwart



for undergraduate and graduate research. His legacy will continue to support students with earnings from this gift.

We also highlight many of our outstanding alumni, who are working to manage, conserve, and use our natural resources for the betterment of our state and nation. A feature on female natural resource leaders includes alumni from each of the three departments working in leadership roles. Their passion, dedication, and perseverance today is helping plant the seeds for the next generation of female natural resource professionals to thrive in forest and field. We also highlight alumni who are leaders in state and national agencies and organizations, setting policy for future generations to manage our natural resources. From creating awareness about forestry and forest products, including the use of cross-laminated timber in buildings, to setting policy to ensure populations of pheasants and quail endure, to serving Mississippi's forest landowners, I am sure you will enjoy learning about how your fellow alumni are making a difference in their chosen career paths.

Our college continues to grow with enrollment of new freshmen up over 2020. There is building anticipation for the fall semester and the opportunities that each academic year brings to welcome new students into our college.

As one of the best natural resource programs in the nation, we will continue to build on the solid foundation laid by Dr. George Hopper. I am blessed to be given the opportunity to follow in his footsteps. Your support means so much to me and our faculty, staff, and students. Thank you for all you do. I look forward to seeing you soon.

& Dus E

L. Wes Burger Interim Dean

ASCENDING THE

CANOPY

CFR Alumnae as Natural Resource Leaders

BY VANESSA BEESON

Statistics, more than 75 percent of natural resource professionals are men. However, that tide is shifting as more women graduate with natural resource degrees. In MSU's College of Forest Resources, women accounted for nearly 43 percent of 2020 graduates. We check in with CFR alumnae who are already in leadership roles in the field and find out how they work to ascend the canopy in a profes sion traditionally dominated by men. Their passion, dedication, and perseverance today help plant the seeds for the next generation of female natural resource professionals to thrive in forest and field.

Nia Blair-Agyeman. (Photo Submitted)

HELPING THE HOMELESS AND THE ENVIRONMENT

FOR NIA BLAIR-AGYEMAN, a day at the office translates to people being able to spend a night at home. The 2017 sustainable bioproducts master's alumna is a senior environmental specialist with the City of Atlanta. Her job is the last piece of the puzzle that helps place residents eligible for funding under the U.S. Department of Housing and Urban Development (HUD).

Under the purview of the city's Department of Grants and Community Development, Blair-Agyeman conducts environmental reviews for all HUD-assisted projects to make sure the proposed projects do not negatively impact the property itself, the surrounding environment, or have an adverse environmental or health effect on people who will live there.

"We make sure the properties are in an environmentally-sound area, close to public transportation, away from noise pollution, not in a flood plain, or near an environmentally-protected land-scape," Blair-Agyeman explained.

She began the job in March 2020, interviewing online as the world was sheltering-in-place at the onset of the COVID-19 pandemic. She went to the office once to pick up her computer and will continue to work remote at least through most of the remainder of 2021. While she may not be able to see the faces of the constituents she serves, she hears their stories and does her best to get them situated in the safe place they deserve.

The city receives four annual entitlement grants through HUD, including The Community Development Block Grant (CDBG); the Home Investment Partnership program (HOME); the Emergency Solutions Grant (ESG); and the Housing Opportunities for Persons with AIDS (HOPWA) program and partners with area nonprofits to place residents.

"We work with organizations that meet the guidelines for the City of Atlanta. For example, I'm doing a project with Nicholas House, which has a program called Homeless to Homes. If you meet the qualifications, we'll provide you money for a place to stay," she said.

Blair-Agyeman is passionate about the work.

"Many of these individuals and families had no place to live prior to being accepted into this program and now they do. For people just trying to get on their feet, find employment, and get housing, having a place to stay really boosts their confidence. Knowing I can work through the environmental reviews and help provide housing for those in need is a great experience because I am helping build my hometown."

The Atlanta native always had a love of the outdoors but an AP environmental science class in high school had her considering natural resources as a career. The next stop was Tuskegee University in Tuskegee, Alabama, where Blair-Agyeman earned a bachelor's in environmental science natural resource management in 2015. After that, she came to MSU where she earned a sustainable



bioproducts master's degree in 2017, studying the effects of natural disasters on timber producers and the broader industry. After a six-month internship as an environmental compliance officer at the Weyerhaeuser lumber mill in McComb, Mississippi, she found her way back to Atlanta and into her current position.

As a Black woman in natural resources, Blair-Agyeman appreciates the times she's been part of a diverse team but said the field has plenty of room to grow.

"I was the only Black woman in the Department of Sustainable Bioproducts at MSU, however, that department was so diverse, I didn't feel different because everyone was from somewhere else and there were quite a few women," she said. "My undergrad experience was also welcoming; while our class was small, the majority of us were women and we're all still working in the field."

Blair-Agyeman noted the diversity found among her colleagues working for the City of Atlanta as well.

"The world is changing, and the way people see each other is changing for the better, I think. We need to understand that though we are alike, we are different, and those differences should be celebrated and embraced," she said.

Blair-Agyeman said she looks forward to the next generation pursuing careers in natural resources.

"The next generation coming up will be amazing because children are exposed to environmental science and STEM (science, technology, engineering, and math) curriculum, in general, at a younger age. I learned about environmental science in high school, kids today have school gardens in pre-schools and kindergartens and environmental education programs in elementary schools," she said. "The fact that exposure occurs at such a young age across a broad spectrum of the population will help environmental sciences become more diverse, not just in background and ethnicity but having more women involved as well."

REDEFINING TRADITION

WHILE AMY BLAYLOCK is the first woman to serve as the Mississippi Wildlife Bureau director for the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP), it's a role familiar to someone who practically grew up in the agency.

"I've grown up with the wildlife bureau and the people within it," Blaylock said. "My dad, Larry Castle, was a district biologist, deer program coordinator, wildlife bureau director, and retired as director of technical programs. My uncle, Benny Herring, started as a district biologist, then wild turkey program coordinator, district manager, and deputy director before returning to the field as a district biologist."

While a family legacy might have made a wildlife career seem second nature for Blaylock, she is redefining tradition and blazing her own trail.

"I don't think it's been a challenge being a woman in this position for the first time. It's definitely been more traditionally thought of as a man's world that I work in but it's a lot of fun. Everyone has been great and easy to work with," Blaylock said.

While the team may be easy to work with, the work itself can be daunting, including a challenge never before experienced by any of her predecessors, when chronic wasting disease, or CWD, was first found in the state in 2018.

"CWD management and surveillance has been a huge task to undertake, beginning in my first year in this position," Blaylock said. "We identified our first positive case in February 2018 and immediately began sampling and mobilizing a program for hunters to submit samples from harvested deer."

In addition to the fairly new CWD program, Blaylock oversees the Bureau's many other programs focused on species including deer, black bear, wild hog, alligator, turkey, waterfowl, and more.

"I'm the wildlife bureau director for the agency which oversees the wildlife management areas (WMAs), our private lands programs, and our species programs. I supervise all of our species coordinators, WMA coordinators, and biologists. I help support on-the-ground management of our wildlife management areas as well as making recommendations for regulations. For species programs, we make recommendations to the Commission on Wildlife, Fisheries, and Parks for season and bag limits. We also conduct research in conjunction with MSU."

White-tailed deer has always been Blaylock's passion in hunting and research.

"Deer are my favorite game species to hunt. That's always been what I've been around," Blaylock said. "For my master's degree working with white-tailed deer, I had the opportunity to work with MDWFP and saw my project from beginning to end. That on-the-ground hands-on experience plus the coursework really prepared me for a career with the agency."

While Blaylock studied the regional effects on white-tailed deer fawn size under the direction of Dr. Steve Demarais in the MSU Deer Lab for her master's, her undergraduate degree was in forestry.

"My bachelor's degree was in forestry with a wildlife management option. I chose to begin in forestry because you can't conduct wildlife management without having some background in forest management. My bachelor's helped me as far as knowing how to manage a forest to create the best wildlife habitat possible," she said.

When she finished MSU, she joined MDWFP first as a wildlife biologist working mostly with private landowners on deer management. That role expanded into serving as the WMA biologist for 11 wildlife management areas across the state.

"I loved working for the WMA program. That was one of my favorite positions I have had since my career began. It gave me a chance to be on the ground managing for wildlife instead of recommending management strategies to landowners. During that time, I was also our wildlife restoration coordinator, which involves writing the grants that funds the work our agency does. That position broadened my view on how the Wildlife Bureau operates as far as funding," she said.

Blaylock said she doesn't have as much time to hunt as she used to but that she and her husband have passed along the tradition to their two kids.

"I grew up with my dad taking me deer, dove, and squirrel hunting. Now, my daughter and son enjoy hunting, each having harvested their own deer," Blaylock said.

Whether her time is spent outdoors with her kids or in the forest directing Mississippi's wildlife programs, it's clear that Blaylock's passion for wildlife will extend to the next generation of women motivated to make a difference and manage all of the natural resources the Magnolia State has to offer.

Amy Blaylock. (Photo Submitted)



PROTECTING A CANOPY AS OLD AS THE NATION

A STUDY ABROAD got RACHEL HABIG-MYERS thinking about urban forestry.

The Russellville, Alabama native and MSU forestry grad was part of the Congress-Bundestag Youth Exchange, which brought her to Rottenburg-am-Necker, Germany to study forestry for a year.

"The scale of properties, and the biomes in our urban landscape around the Washington D.C. area are similar to my experience in Germany, where they've actively maintained their forests for over 1000 years. Just by looking outside, I am constantly reminded that some of the lessons to be learned are actually 1000 years old. By seeing examples of the issues faced by others we can solve our own problems and improve our local environment," she said.

Habig-Myers began her MSU journey as a freshman architecture student but found a better fit in forestry.

"I heard the average life of a building was only 40 years and I wanted to study something that lasted longer, so I decided to switch to forestry. I count myself lucky to have been at MSU as a forestry student because it's such a good program to get the fundamentals of our science from a utilitarian standpoint. MSU is at the forefront of tree farming and agroforestry, focusing on the success of tree planting and management. Having that perspective is essential to understanding the range of attitudes and beliefs I see in my work every day, while also succeeding in growing and maintaining trees."

Now, Habig-Myers helps protect the canopy of Washington D.C.'s largest suburb, including trees as old as the nation. In her role as field coordinator for the forest pest branch of the urban forest management division for Fairfax County, Virginia, she is tasked with ensuring the county's canopy is protected from insect and plant pests. She implements and supports 15 management and monitoring programs for invasive insects, plants, and diseases.

"What excites me most is winning against bad insects and plants," she said.

It can be a challenge fighting forest pests in such a dense, urban environment.

"One fifth of our land is either under pavement or shingles, yet we still have over 50 percent tree canopy. We have 1.14 million people living in 404 square miles, so the area is densely populated with a single tree often impacting two or more properties. All of those factors can make pest invasions a complicated problem for us," she said.

Part of her current work is focused on mitigating impacts caused by the emerald ash borer, where the team has introduced parasitoid wasps as a biological control for the pest.

"We are starting a seed collection program to eventually plant ash seedlings where we've introduced the wasps. We hope to get the emerald ash borer to act like a native insect where it doesn't kill every ash tree it comes across, creating an island where the ash trees could survive where the emerald ash borer also exists," she said.

The team is also combating hemlock woolly adelgid, an insect that attacks the region's storied hemlock trees.

"Our area has been inhabited by European settlers longer than most parts of the country, so we only find hemlocks on really steep slopes. Hemlock grows very slowly so a tree 12 inches in diameter might be around 300 years old," she said. "We're working with Fairfax Fire and Rescue, who scale slopes for evacuations, to safely treat trees on a very steep slope."

Habig-Myers received her bachelor's and master's in forestry from MSU in 1999 and 2002, respectively, and another master's in environmental interpretation from the State University of New York College of Environment and Forestry.

"My research for both master's dealt with attitudes and beliefs about the environment. That is critical in my job now because I deal with the public's attitudes and beliefs concerning the environment. They may be upset because someone is cutting down a tree that shades their house. My yard is only ten feet wide. If my neighbor cut down their tree, I wouldn't have shade on my house, so I understand the emotion tied there. Understanding psychology and sociology in the framework of natural resources has been beneficial in helping people find resolutions to issues," she said.

Habig-Myers said her upbringing in Alabama and Shenandoah Valley, Virginia ignited her passion for the natural world.

"I grew up in the country and roamed free in both places. In the Shenandoah Valley at night, I could see the lights of Skyline Drive up in Shenandoah National Park. Even at night, I was connected to the nature around me with a sense of wonder and freedom."

Rachel Habig-Myers. (Photo Submitted)



FROM THE FRONT LINES OF FIRE

CANDICE STEVENSON is the fire communication and education specialist for the National Park Service. She's well-equipped to educate the public and the media about fire because she's served on the front lines as a firefighter. The Forest, Mississippi native and two-time CFR alumna stationed at the National Interagency Fire Center in Boise, Idaho said she loves her job because she's able to communicate her passion while also inspiring the next generation of natural resource professionals.

"I've been a firefighter, so I can tell someone what it's like to have been out there. If I'm talking with someone whether it's media or someone asking about a particular fire, I can relay that information. When the light bulb goes on and someone figures out how to keep themselves safe, that's when I've done my job," she said.

Hired into the student career experience program with the U.S. Fish and Wildlife Service at the Sam D. Hamilton Noxubee National Wildlife Refuge allowed Stevenson to work while she finished her bachelor's in wildlife science, graduating in 2004. She continued on with the program earning her master's in wildlife and fisheries science in 2008.

"MSU was a lot of fun. We learned to apply knowledge from the classroom to the field, so you learned how to dress and prepare for the field. You came out ready for so many different jobs. Even if you didn't get a job in forest resources or biology, the experience of being in the field and working with your hands was invaluable," she said.

Stevenson continued on with the agency at Wheeler National Wildlife Refuge in Alabama and then on to Florida at Merritt Island National Wildlife Refuge and Lake Woodruff National Wildlife Refuge, where she served as refuge manager and became a public information officer and firefighter type two.

"Becoming a firefighter was intimidating because I didn't think I could do it but once I tried it, I realized I could. It was awesome to pass the pack test, where you have to walk three miles carrying 45 pounds in 45 minutes," she said.

Soon, Stevenson was considered a national resource, being deployed around Florida and the country for natural disasters and wildfires.

"If you're in one of the wildland fire positions such as a public information officer, you're considered a national resource, so it doesn't matter what agency you work for, you can go and work on other federal and state lands," Stevenson said.

In her current position, working for the National Park Service's Division of Fire and Aviation, Stevenson coordinates with external affairs counterparts from other agencies to keep the public and media informed about wildfire and more.

"I help communicate information about our division's three branches: wildland fire; structural fire, which covers historic and iconic structures; and the aviation program," she said.

She maintains multiple websites for the three branches, writes articles, prepares educational material, and social media content to keep the public informed. She also coordinates with regional fire communication specialists to make sure they have the information and resources they need to educate the public on wildfire preparation. She also chairs the National Wildfire Coordinating Group PIO Subcommittee, a multiagency partnership to foster effective wildfire communication across the country.

Stevenson, passionate about carving out in-roads for women in the wildland fire field, also serves on a committee to better determine avenues of success for women in NPS wildland fire.

"We hope to identify barriers that prevent women from pursuing this field and find ways to recruit more women and keep them here," Stevenson said.

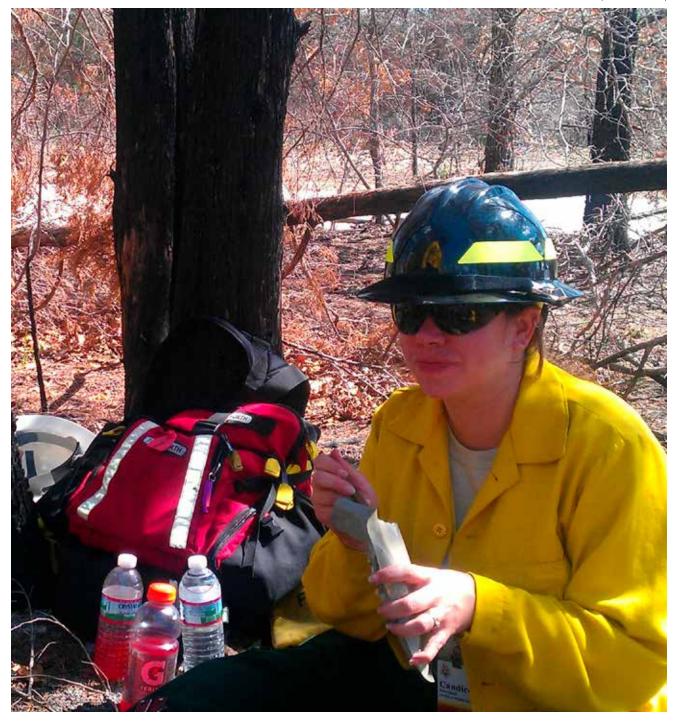
The team seeks ways to be more inclusive and reduce bias in their marketing, recruitment, and retention efforts, including exploring the idea of all female firefighting crews.

"Being the only woman on a crew is daunting. Men have had an opportunity to be on all male crews and bond in that way and we're trying to provide the same thing for women.," she said.

Stevenson's advice to anyone entering the field is to embrace every opportunity.

"Even those wild adventures, even those things you don't think you can do, you absolutely can. CFR students enjoy diverse options in a career path, with many different places your education and experience can take you," she said. "I didn't get a communications degree, but I love everything about my job. Also, don't assume you have to be 100% competent before jumping into an opportunity. You can learn on the job. If someone gives you a chance, have the courage and confidence to take it."

Candice Stevenson. (Photo Submitted)



LOVE OF THE FOREST COMES FULL CIRCLE

Sustainable Bioproducts alumnus helps forests through market innovation

BY VANESSA BEESON

T'S EASIER TO UNDERSTAND TREES when you're surrounded by forests. At least, that's the case for **DR. BRIAN BRASHAW**, 2014 sustainable bioproducts alumnus.

The Laona, Wisconsin native said the link between forests and the forest products industry became evident early on.

"I grew up in the Nicolet National Forest. My dad worked for Connor Forest Products and many family friends worked for the U.S. Forest Service," he recalled.

Nicolet merged with another forest in 1993 to become the Chequamegon-Nicolet National Forest, which covers around 1.5 million acres of Wisconsin's Northwoods. Brashaw—now stationed in Duluth, Minnesota at the Superior National Forest—has dual roles as assistant director of the U.S. Forest Service's Wood Innovations Program and program manager for the Forest Products Marketing Unit, the market development arm of the agency's Forest Products Laboratory (FPL) in Madison, Wisconsin.

Focused on near-term market opportunities for wood products, he said his job deepens his appreciation for the forest.

"Working for the Forest Service has allowed me to come full circle and think about how to support forests in all I do. Successful markets support forest management. A real-life connection is created as I'm thinking about markets and research while stationed with people managing the land," he said.

The Wood Innovations Program's market development approach supports forest management and is managed by state and private forestry staff.

"If landowners have markets for their products, they're more likely to keep their forests as forests. Consider forest restoration, if we're thinning and improving the land and we have a market for the products, we reduce waste while creating revenue to offset the treatment's cost," he said.

The team focuses on development and economic opportunities of mass timber, including cross-laminated timber, or CLT. They also invest in wood energy, biochar,

cellulose nanomaterials, and other innovative wood products.

Brashaw works with the group's Washington, D.C.-based team and technical and market development leadership within the Forest Service's nine regions, while also leading the FPL's marketing unit.

He said the Forest Service is invested in innovative wood products from discovery to market, noting the team's mass timber strategy as an example of this all-encompassing approach.

"Wood Innovations supports education and technical assistance to help the building industry embrace mass timber use in commercial or multifamily structures. FPL conducts performance-based product research to inform and demonstrate performance, which ultimately led to national building code changes that allow for taller wood-based buildings. We are also investing in catalytic projects to create more markets for mass timber," he said.

Brashaw noted one special initiative the USDA and Softwood Lumber board kicked off in 2014—the U.S. Tall Wood Building Competition, which set the stage for CLT in a commercial setting.

"Since then, the U.S. has seen over 1,000 CLT buildings built, under construction or in planning and design. Ten manufacturing plants are now producing products, and Walmart has chosen to build their new headquarters from CLT produced in Arkansas," he pointed out.

The Forest Service's grants program is another special initiative Brashaw discussed. Its Wood Innovations Grants Program, launched in 2015, awarded \$7.62 million to 35 recipients in 2020, 27 of which focused on expanding wood products markets including CLT. The Community Wood Grants Program, established in 2020, will award approximately \$2 million to its first recipients in 2021.

2020 Wood Innovations Grants Program recipients include MSU, to study the development of preservative-treated southern pine cross-laminated timber, and the Mississippi Forestry Foundation, which plans to build a Forestry Educational and Utilization Center to showcase the benefits of CLT and other innovative wood building materials.

Brian Brashaw (Photo Submitted)



"The CLT building we're supporting with the Mississippi Forestry Foundation is an example of a catalytic investment aimed to educate the public about CLT. Another example is the Ascent building in Milwaukee, Wisconsin, currently under construction, which will be the tallest mass timber building in the world," Brashaw said.

He explained how CLT diminishes a building's carbon footprint exponentially.

"CLT replaces other fossil fuel intensive building materials. Trees absorb carbon dioxide and convert it to wood, which is 50 percent carbon. When we build with wood, that carbon continues to be stored for the life of the building, which might be a hundred years or more," he explained.

Brashaw said the Forest Products Lab's marketing unit is an interface between industry, research, and the Forest Service lands, supporting market development and outreach that helps bring innovative products to market.

"We connect what's happening in research, in the marketplace, and at the local level. Most states have their own wood utilization specialist who is most familiar with the industry in the state, so we partner with them to support wood utilization and market development," he explained.

Growing up, Brashaw wanted to be a forester. But after a forestry bachelor's degree from the University of Wisconsin—Stevens Point, he delved into wood products with a master's in the subject from Washington State and then went on to the University of Minnesota Duluth's Natural Resources Research Institute as a researcher and wood industry specialist.

While at the Natural Resources Research Institute, Brashaw worked on everything from baseball bats to kitchen cabinets as an engineer, researcher, and manager for the university's non-teaching research and development group that supported wood products economic development in Minnesota.

There he met Dr. Rubin Shmulsky, now MSU's sustainable bioproducts department head. Years later, he reached

out to Shmulsky to explore the possibility of pursuing a Ph.D.

"I'll forever appreciate that MSU gave me a great opportunity to earn a Ph.D. while working full-time. It has been of tremendous value to me," he said.

Having already spent 20 years as a published researcher, his time at MSU further shaped him as a scientific leader.

His time in the Magnolia State also opened his eyes to the challenges and opportunities of southern forestry. These days, however, his national focus has led him to an unlikely place—helping tell the story of America's forests and forest products industry with a rock and roll legend.

While Chuck Leavell is best known for his piano and keyboard work with the likes of Eric Clapton and the Rolling Stones, off tour, he's more likely to be found revving up a chainsaw on his Georgia tree farm. Leavell hosts the PBS television series, "America's Forests," to communicate how forests and the forest products industry benefit Americans. The Forest Service supported the pilot episode, which featured CLT in Oregon in 2017. Brashaw became a champion for the series, and most recently, he helped tell the story of Wisconsin's forests, across two episodes showcasing both the Forest Products Lab and the forest where Brashaw grew up.

"The show is so effective in communicating. My goal was to elevate awareness of the Forest Service and the Forest Products Lab but upon doing so, we highlighted so many other stories related to Wisconsin's forests," he said.

Whether it's working with Leavell to tell the story of the Northwoods Brashaw once called home or educating Forest Service regional leadership on new markets for wood products, it's clear Brashaw is at the forefront of a thrilling time in the industry.

"As mass timber markets become stronger and progress is made in wood energy, biochar, cellulose nanomaterials, and other wood products, we'll continue to work collaboratively and have an impact. Our goal is to keep forests as forests and create markets that help them remain healthy and resilient," he said. *

PHEASANTS AND QUAIL FOR THE FUTURE

CFR alumnus informs policy to protect upland birds

BY TAYLOR VOLLIN

S HE SITS AT HOME working from his computer with his bird dog at his feet, there is nowhere **JIM INGLIS** would rather be than somewhere in the uplands of the U.S. anticipating the flush of a rooster pheasant or a covey rise of quail with his wife, two sons and Ozzy, his Wirehaired Pointing Griffon.

"At the office, I think of how to develop and support policies and programs that create opportunities now and for future generations," Inglis said. "I have two young kids, and I know the ample opportunities that I had to enjoy the outdoors growing up, but what opportunities will they have, especially when it comes to hunting and fishing?"

It was on a dairy farm in Clifton Springs, New York that Inglis uncovered a love for hunting, fishing, agriculture, and natural resources at an early age. Today, as the experiences that shaped his past and defined his future dwindle in the Empire State and beyond, conserving these traditions has become his life's work.

Inglis has been the director of governmental affairs at Pheasants Forever and Quail Forever for nine years, but started his professional career with the organization 20 years ago as the regional biologist for Ohio. The nonprofit organization began in 1982 in Minnesota with Quail Forever launching in 2005, something Inglis helped create. The organization aims to conserve pheasants, quail, and other wildlife through education, policy, and habitat improvements.

Inglis works alongside a team of dedicated policy and field staff to advocate for conservation policy and programs at the national scale while also engaging in state level efforts that help their mission to conserve pheasants, quail, and other wildlife through habitat improvements, public access, education, and conservation advocacy. While each day is different, the goal remains the same: ensure conservation and wildlife policy is put in place and implemented correctly.

"We work with members of Congress, federal agencies, and staffers on a daily basis to make sure we are getting effective policy in

place and then make sure it's implemented correctly, partnering with the U.S. Department of Agriculture and the U.S. Department of Interior at the federal level. We also work closely with state wildlife agencies and are part of broad coalitions of many other national and state hunting and conservation groups," Inglis stated. "I traveled quite a bit before COVID-19, attending national wildlife meetings and conferences and a highlight of the year was bringing our Pheasants Forever and Quail Forever volunteers, farmers, ranchers, and landowners to our nation's Capital to tell their story of how conservation is important to them."

In his career, Inglis has impacted conservation at many levels, from the local to the national scale. He has worked on previous Farm Bills, including 2008's Food, Conservation, and Energy Act; the Agricultural Act of 2014; and the Agriculture Improvement Act signed into law in 2018 and played a vital role in reauthorizing the Great American Outdoors Act in 2020. Policy is where Inglis clearly thrives.

"The Farm Bill is key, and that's why I shifted to work on the policy side as someone who had the field implementation experience and could advocate for conservation programs that have a significant impact on private lands and Pheasants Forever's mission," Inglis said. "From being able to relate from my farm background and the field biologist perspective early on, to creating and enhancing legislation that really can make a difference has been fulfilling," said Inglis, noting that there is about \$30 billion for conservation programs over the five-year authorized 2018 Farm Bill, that impact tens of millions of acres each year.

Inglis said the Great American Outdoors Act (GAOA), which the National Parks Conservation Association describes as "a conservationist's dream," as another noteworthy accomplishment of which he played a small part. The legislation will provide \$9 billion over the next five years to repair national parks,

Jim Ingliss with hunting dogs in a open field. (Photo submitted)



wildlife refuges, forests, and other federal lands. It will also guarantee \$900 million a year—with no end date—for the Land and Water Conservation Fund (LWCF). Given the GAOA was a long shot, its bipartisan success made history.

"The Great American Outdoors Act was a really big win in 2020. It was a lot of work with many groups and members of Congress that became a historic win for conservation. It took bipartisan effort to get that permanently reauthorized and permanently funded, and we were able to get it done by the end of 2020. Now, we have a tremendous amount of funding for our public land and water conservation efforts," he said.

Policy was not always the goal for Inglis, however. After obtaining his undergraduate degree in forestry and wildlife at SUNY College of Environmental Science in Syracuse, New York, Inglis worked as a research associate on projects at both The Ohio State University and Virginia Tech. In 1998, he relocated to the Magnolia State after a master's research project became available at MSU. The project studied wild turkeys in the Longleaf Pine ecosystem, with Inglis focused specifically on the Leaf River Wildlife Management Area in the De Soto National Forest. Inglis credits his co-major professor, Dr. Wes Burger, current interim dean of the College of Forest Resources and interim director of MSU's Forest and Wildlife Research Center, for fostering his interest in Farm Bill programs and policy.

"Mississippi State was where I was introduced to the Farm Bill and its benefits for wildlife on private lands. Dr. Burger was really on the forefront of how the Farm Bill conservation programs and the Conservation Reserve Program could impact quail, and that's when it clicked for me. That first introduction in his class made me realize the importance of agriculture and private land policy," Inglis said.

The 2001 CFR graduate has grown with Pheasants Forever. Since his start, the organization has expanded from having less than 50 employees to being just shy of 400. In addition, the organization has grown to nearly 140,000 members across 750 chapters nationwide.

Looking ahead, Inglis predicts habitat loss, climate solutions, and a growing population will be major topics of interest informing national policy. For Inglis and his team, their mission, which is expanding, will always remain focused on benefiting pheasants and quail and providing access opportunities at the center of their work.

"Some of the biggest issues we're looking at now is what some of the climate solutions are going to be. We're already seeing this administration's priorities, and we're going to make sure that it makes sense for farmers, ranchers, and private landowners, as well as rural areas of our country," Inglis said. "Voluntary-based natural resource solutions can also make sure opportunities exist to hunt and fish, keep those areas available for recreation, and get the next generation of kids or new hunters outside, that's what we really work on as an organization."

For Inglis, the COVID-19 pandemic has shown just how important these outdoor spaces are to him and the rest of the U.S. population.

"Hunting, fishing, and outdoor recreation generates nearly \$900 billion annually across this country each year, and with the pandemic we've only seen people get outdoors more," Inglis said. "We've had more first-time hunters and anglers buying equipment, and even kayaks and bicycles were in high demand. People sought the outdoors for a sense of normalcy, and we need those opportunities in the future. I'm a hunter, angler, and outdoor enthusiast, so knowing that my wife, kids, and Ozzy, and future generations have opportunities motivates me to protect this way of life, now and forever." *

MAN OF THE PEOPLE, MAN OF THE STATE

CFR alumnus promotes forest management across many roles

BY REAGAN POSTON

ESPITE HONORING HIS ROOTS and settling down in the small central Mississippi town of De Kalb, **ORLANDO ELLERBY'S** job can take him from Pascagoula to Southaven any given day, and that's why he loves it.

Ellerby, a 2002 forestry graduate, serves three important roles with the Mississippi Forestry Commission, two of which hold statewide responsibilities. The common thread among all of them, however, is that they allow Ellerby the opportunity to serve both his community and Mississippi.

Ellerby is the outreach officer for Region 3—which covers twenty counties south of Highway 20 and north of Hattiesburg, from the Mississippi River to the Alabama border—as well as the Mississippi firewise coordinator, and the underserved landowner forester.

"As an outreach officer, I spend a lot of time just introducing people to all that the Mississippi Forestry Commission offers," Ellerby said. "Sometimes that means talking directly with landowners about how best to utilize MFC resources and sometimes it means presenting at conferences or on a panel at a workshop. I do a lot of work with kids, too. We host conservation carnivals for students and forestry field days, and I'll present at libraries and teach young children about Smokey Bear."

Ellerby's role as firewise coordinator, in addition to photo opportunities with Smokey, gives him the chance to share important and potentially lifesaving information about wildfires and wildfire prevention. Ellerby and his team host firewise presentations in local communities and schools to discuss safety measures for prescribed burns; maintenance for removing kindling from gutters, rooftops, and flowerbeds; safe escape routes in the case of a fire; and other tips to keep safe during wildfire season. Ellerby himself is also often on the frontlines of these Mississippi blazes and coordinates with first responders across the state to

make sure that people's homes and timberlands are protected.

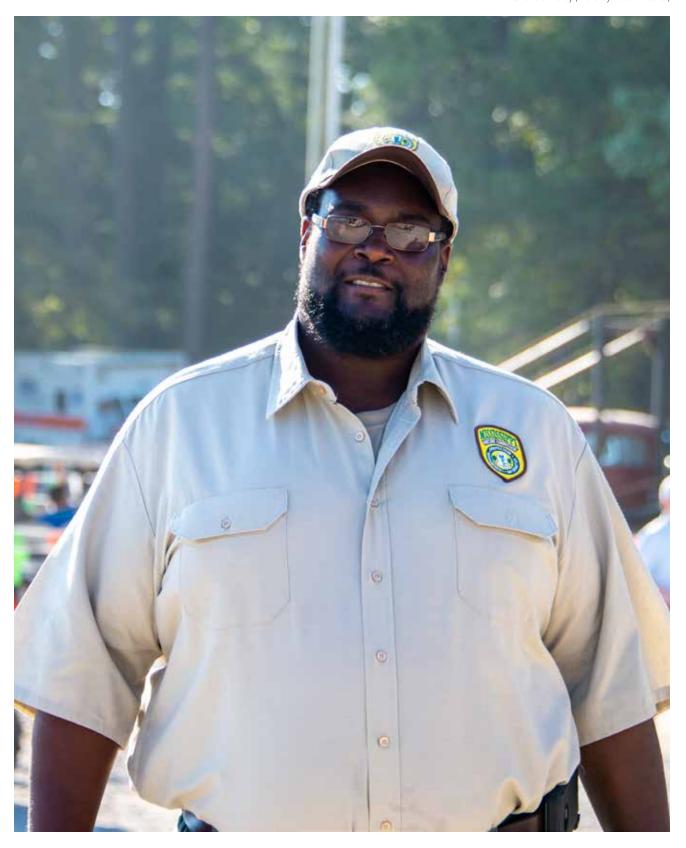
Being Mississippi's underserved landowner forester brings Ellerby's positions as outreach officer and as firewise coordinator together. As the title might suggest, Ellerby's primary duty is devoted to ensuring that landowners who traditionally are inexperienced with forestry receive the knowledge and guidance necessary to help them succeed in managing their lands, be it practical steps to prevent wildfires or advice about resources available to them through the Mississippi Forestry Commission.

"As the underserved landowner forester, I get a lot of oneon-one time with people. I'll spend a few days getting to know them, their experience levels, their land goals, and then I help them figure out a management plan that gets them closer to those goals. The individual setting lets me develop a meaningful relationship with these underserved landowners, and they become friends. There's a personal pride just in watching them succeed," Ellerby said.

Ellerby shared that this commitment to community and environment began right at home, where his family exemplified an enterprising spirit and a love of nature.

"My grandparents owned a small farm. My dad and my grandpa were both loggers. My aunt has a flower shop, along with my uncle's country store and trucking business, so I grew up around family members who were working for themselves and making things work. Because of that influence, I knew that I wanted to be a part of that world, and going to Mississippi State opened doors for me to introduce others to the importance of forestry and environmental stewardship," Ellerby said. "The outreach work I've done has put me in a position to help anyone I run across become a good steward of their land. If you've got timberland, if you've got wildlife, if you've got water, then you have a responsibility to manage and protect it. I'm here to help Mississippians figure out the best way to do that." *

Orlando Ellerby.(Photo by Karen Brasher)



DEVELOPMENT

MEMORIALIZING MARIANN

Support gifted toward the study of open pine grassland ecosystems

BY REAGAN POSTON

ESPITE NEVER HAVING ATTENDED the university herself, Mariann R. Cooper's legacy at Mississippi State has been cemented by the Mariann R. Cooper Open Pine Grassland Ecosystems Fund.

After Mariann's passing in 2019, her son Jeff, a two-time alumnus of the university, established this estate gift in honor of the love his mother held for the university and the love she held for the natural world, both of which she instilled in him. Mariann, a native of Tipton County, Tennessee, spent more than thirty years with Memphis District U.S. Army Corps of Engineers, where many of her colleagues and associates were MSU alumni.

"When she and I discussed what should be done with her estate, the answer was obviously and unanimously Mississippi State," Jeff said.

Jeff received his bachelor's and master's degrees in forest resource management and wildlife ecology, respectively, from MSU so Mariann's heart was set on gifting her estate to the College of Forest Resources. When the duty fell to Jeff to specify what she would want it used for, the study of open pine grassland ecosystems rang true.

"Even though my mother enjoyed fishing, she wasn't much of an outdoors person," Jeff said. "The open pine grassland ecosystems direction emerged partly because that's what I studied for my master's degree, but mostly because of the fond memories my mother and I shared back when open pine grasslands flourished."

Jeff went on to share an anecdote from his childhood in which he and his mother gathered alongside their extended family to enjoy annual quail dinners harvested in the local grassland habitats once abundant in Tipton County, Tennessee.

"We looked forward to those bird dinners as much as Thanksgiving or Christmas dinners," Jeff said. "It seemed fitting to try and preserve the memory of my mother by helping preserve the culture tied up in quails' open pine grassland ecosystems habitat."

Open pine grasslands have been in a decline for upwards of forty years, endangering the wildlife that live there and the traditions—like the memories held fondly by the Coopers—that are rooted in its soil, and this gift will contribute both to counteracting the degradation of these ecosystems and to preserving the happy times they established.

"Forests and fields can yield lifelong memories of home, and I have no doubt that my mother's fund will support professors and students in protecting those treasures for years to come," Jeff said.

In practice, the gift will be used to support education, research, and outreach activities that are directly related to open pine grassland ecosystems ecology and conservation, with an emphasis on habitat restoration and wildlife population in southern fire-dependent forests. The fund will support relevant applied research focused on developing, evaluating, and demonstrating conservation practices in a working land-scape context and its effect on agricultural wildlife.

Jeff Little, senior director of development for the Bulldog Forest, has seen firsthand the impact charitable donations such as these have not only on the university but also on the interests for which they were created.

"The Mariann R. Cooper Open Pine Grassland Ecosystems Fund is one piece of the incredible mosaic that constitutes our upland game and upland ecosystems programs. There are many moving parts when thinking about wildlife and how best to preserve, research, or teach it. One group might focus on wildlife biology, another on local flora, and the Coopers' contribution to that effort fits right in and is greatly appreciated," Little said."

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GROWING TOMORROW'S RESEARCHERS

Fund honoring Dr. George M. Hopper boosts undergrad research

BY VANESSA BEESON

N HONOR OF DR. GEORGE M. HOPPER'S legacy of leadership, an endowed fund has been established in the Mississippi State University Foundation to support undergraduate research scholars in the College of Forest Resources.

The Dr. George M. Hopper Fund for Research Excellence was initiated by administrators, faculty, staff, and friends of the College of Forest Resources to honor the dean who retired in June 2020 after 15 years of service.

Dr. Wes Burger, interim dean of the College of Forest Resources and interim director of the Forest and Wildlife Research Center, said the effort will continue Hopper's legacy of fostering growth and excellence in CFR students.

"Under Dr. George Hopper's leadership, the College of Forest Resources experienced an unprecedented period of growth and prosperity. His passion, throughout his tenure, was equipping future natural resource professionals by providing students with experiential learning opportunities. He was equally passionate about recognizing excellence among his students, faculty, and staff. The Dr. George M. Hopper Fund for Research Excellence will honor two of his passions by recognizing excellence among CFR undergraduate research scholars," Burger said.

Several programs initiated by Hopper have helped position MSU's College of Forest Resources as one of the nation's premier natural resource programs. During Hopper's tenure, student enrollment doubled along with a 75 percent increase in degrees awarded, and a 20 percent increase in scholarship funding. Hopper began a passion project in 2013—the Undergraduate Research Scholars Program—funded through the Forest and Wildlife Research Center. Since its inception, the program has

provided support for nearly 80 undergraduates to take the lead on individual research pursuits under faculty mentorship.

"Dr. Hopper's Undergraduate Research Scholars Program created an opportunity for CFR undergraduates to work with faculty mentors on original and relevant research, igniting the fire of scientific discovery and shaping the future career paths of many of our students," Burger said.

Initially, the fund will be designated toward undergraduate research with a committee comprised of faculty engaged in undergraduate research mentorship selecting the ideal candidates for the awards.

Jeff Little, senior director of development with the MSU Foundation, said the gift is a fit for honoring Hopper, who along with his wife, Dr. Missy Hopper, professor in the College of Education's Department of Curriculum, Instruction and Special Education, remains active in supporting the MSU and Starkville communities today.

"This fund is a perfect way to honor Dr. George Hopper. As dean, he loved nothing better than for students to come meet with him in his office and ask him questions about their paths. He loved conversations with students and was extremely supportive of research, travel, and scholarly endeavors for them. Dr. Hopper and his wife, Dr. Missy Hopper, are very philanthropic and Dr. Hopper always made a point to remind us that our first priority should always be helping students succeed," Little said. *

Those interested in contributing to the Dr. George M. Hopper Fund for Research Excellence should contact Jeff Little at (662) 325-8151 or via email at jlittle@foundation.msstate.edu.

Dr. George M. Hopper (Photo by David Ammon)



COLLEGE NEWS

FORESTRY

\$2.5 MILLION DOE GRANT TO HELP MSU RESEARCHERS MEASURE BENEFITS OF GROWING TREES FOR BIOFUEL

A \$2.5 MILLION GRANT from the U.S. Department of Energy will benefit Mississippi State researchers in the university's Forest and Wildlife Research Center studying the economic and ecological benefits of growing trees for biofuel production.

The DOE funding will help MSU scientists study how to produce better, hardier hybrid poplars and eastern cottonwoods harvested for biomass energy. The team also will quantify the ecosystem services these fast-growing trees provide.

DR. HEIDI RENNINGER, assistant professor, is the project's principal investigator.

"Short rotation hybrid poplar and eastern cottonwood trees grow fast as woody crops used to produce biomass energy,"



Associate Professor Courtney Siegert, from left, Assistant Professor Qin Ma, Assistant Professor Austin Himes and Assistant Professor Heidi Renninger, all in the Department of Forestry in Mississippi State's College of Forest Resources, visit a hybrid poplar plantation research site in Monroe County. (Photo by David Ammon)

Renninger said. "These trees can grow between 20-40 feet in two to three years, at which time the trees are then coppiced, or cut back. The cut trees are harvested and used in the creation of biofuel while a new crop re-sprouts from the coppiced stumps."

She said the team will develop an economic model that landowners can use to determine if short rotation woody crop production for bioenergy is right for them.

"We hope to find ways to make utilizing these trees for renewable energy more profitable for landowners and the emerging biofuel industry alike," Renninger said. "In order to do that, we need resilient trees that can grow on different land-scapes under different circumstances."

Other MSU researchers on the project include **DR. COURTNEY SIEGERT**, associate forestry professor; **DR. QIN MA**, assistant forestry professor; **DR. AUSTIN HIMES**, assistant forestry professor; and **DR. RAY IGLAY**, assistant professor of wildlife, fisheries and aquaculture. Collaborators also include the University of Tennessee and Louisiana Tech University. Oregon's Green-Wood Resources Inc. is providing access to the company's hybrid poplar cuttings.

MSU EXTENSION ASSOCIATE HONORED AS NEW FELLOW OF NATIONAL FORESTRY SOCIETY

A PROMINENT NATIONAL FORESTRY ORGA-NIZATION recognized a Mississippi State Extension Service staff member with a prestigious honor.

Senior Extension Associate MARCUS MEASELLS is one of only 17 honorees nationwide recently named a fellow of the Society of American Foresters. One of the organization's highest accolades, fellows are honored for their extensive and long-standing dedication to the advancement of the forestry industry

at local, state, and national levels.

The Morton native has been actively involved with the organization and industry since his undergraduate years at Mississippi State, when he served as secretary to the SAF student chapter. He graduated with bachelor's and master's degrees in forestry in 1999 and 2001, respectively.

"One thing the SAF looks for in naming a fellow is involvement at multiple levels of the society. I've served in various local leadership roles over the years. I was secretary for nearly seven years at the state level, then served terms as vice chair and chair. Another consideration is the service that an individual does for



the profession in general. In my case, this was my commitment to forestry organizations alongside the SAF and work I do with the MSU Extension Service," Measells said.



MSU, A TREE CAMPUS USA FOR THE SEVENTH CONSECUTIVE YEAR, CELEBRATES ARBOR DAY WITH ANNUAL CAMPUS TREE PLANTING

MISSISSIPPI STATE FACULTY, STAFF, AND STUDENTS commemorated Arbor Day on February 7, 2020 by planting trees along Hail State Boulevard. Seedlings planted included loblolly pine, burr oak, and bald cypress, supplied by Paul Jeffreys, an MSU College of Forest Resources alumnus and reforestation advisor at ArborGen, Inc.

MSU was recognized for the seventh consecutive year as a Tree Campus USA, an Arbor Day Foundation distinction. MSU currently is the only university

in the Magnolia State with this honor that recognizes commitment to the value and maintenance of trees. The distinction requires that MSU have a campus tree advisory committee, plan for tree maintenance, allotted maintenance budget, an Arbor Day observance, and a community outreach project. This work is showcased through the 10,000 to 15,000 trees found throughout the Starkville campus and is supported through the efforts of faculty, staff, students, and the larger community.

MSU FORESTRY ORGANIZATION HONORED AGAIN AS LEADING NATIONAL CHAPTER

FOR THE THIRD YEAR IN A ROW,

Mississippi State's student chapter of the Society of American Foresters, or SAF, placed first in the national Outstanding Student Chapter competition.

The award honors the top

three SAF student chapters in the nation, as well as their faculty advisor. MSU has been recognized with the first-place award nine times in the last 25 years and has placed in the top three consecutively for more than two decades.

NOTABLE ACHIEVEMENTS

DR. COURTNEY SIEGERT, associate professor, won the faculty research award for the College of Forest Resources and the Forest and Wildlife Research Center. The awards were presented by the Office of Research and Economic Development and the Division of Agriculture, Forestry, and Veterinary Medicine.

STUDENT AWARDS

2019-2020 College of Forest Resources award winners in the Department of Forestry include:

ALLISON BERGER won the Senior Academic Achievement and George Switzer Outstanding Undergraduate Award for the natural resource and environmental conservation major.

Two master's students placed at the MSU Graduate Research Symposium. **DARCEY COLLINS** won first place oral presentation in Social and Behavioral Sciences and **CLAYTON HALE** won third place poster presentation in Life and Biomedical Sciences.

WILL KRUCKEBERG

won the Moehring
Outstanding Graduate
Student Award Master's
Level. Kruckeberg also
received the graduate
student research award
for the College of
Forest Resources, which
was presented by the
Office of Research and
Economic Development
and the Division of
Agriculture, Forestry, and
Veterinary Medicine.

LANE DANIEL won the Sophomore Academic Achievement Award in the forestry major.

RACHEL NATION

won the George
Switzer Outstanding
Undergraduate Award
in the forestry major.
Nation also won the
undergraduate research
award for the College of
Forest Resources, which
was presented by the
Office of Research and
Economic Development
and the Division of
Agriculture, Forestry, and
Veterinary Medicine.

ASHLYN NAYLOR

won the Sophomore Academic Achievement Award in the natural resource and environmental conservation major.

sam seamon won the Senior Academic Achievement Award in the forestry major. Seamon also received the Student Leadership Award from the Society of American Foresters.

SUSTAINABLE BIOPRODUCTS

NATION'S FOURTH LARGEST WOOD COLLECTION ACQUISITION MAKES MSU HOME TO THE SOUTH'S PREMIER TEACHING, RESEARCH TOOL

MISSISSIPPI STATE is now home to one of the nation's largest wood collections, making the university a prime training ground for research on rare and exotic species.

MSU's Department of Sustainable Bioproducts in the College of Forest Resources has acquired the 32,000-specimen David A. Kribs wood collection, the fourth largest in the U.S. according to the International Association of Wood Anatomists. This acquisition also makes MSU home to the premier reference wood collection in the South.

DR. RUBIN SHMULSKY, professor and department head, said this major collection is not only enhancing education in the field of wood identification and the university's growing wood anatomy program, but offering student research opportunities to address current industry issues such as illegal logging, along



Sustainable Bioproducts Assistant Professor Frank Owens examines a red oak specimen from the David A. Kribs wood collection, one of the nation's largest recently acquired by the MSU College of Forest Resources. The acquisition also makes the university home to the premier collection in the South. (Photo by Dominique Belcher)

with the misrepresentation and mislabeling of wood and wood products.

"It is going to be a vital resource for our work in machine learning, forensics, and artificial intelligence," Shmulsky said. "All imported wood must be accurately identified to prevent illegal logging and trade, and this collection acquisition is critical in working to curtail this problem and enhancing sustainability." Dr. Elisabeth Wheeler, professor and Dr. Alex Wiedenhoeft, research botanist and team lead at the Center for Wood Anatomy Research at the USDA Forest Service Forest Products Laboratory, helped facilitate MSU's procurement of the collection. Kribs, a nationally recognized career wood anatomist who was a longtime professor at Pennsylvania State University, started the collection nearly 100 years ago.

emeritus at North Carolina State Uni-

versity, where the collection was housed,

THE USDA FOREST SERVICE AWARDED MSU A \$250,000 GRANT TO ADVANCE INNOVATIONS IN WOOD PRODUCTS INDUSTRY

THROUGH ITS WOOD INNOVATIONS GRANT PROGRAM, the Forest Service awarded a \$250,000 grant to Mississippi State University for a project to develop the preservative-treatment procedures for industrial cross-laminated timber mats composed of southern yellow pine lumber.

The project will develop pre- and post-treatment methods for cross-laminated timber panels using a commercial environmentally-friendly preservative system. Cross-laminated timber, an

engineered wood product, is attractive for residential and industrial use because of its outstanding mechanical properties, low environmental impact, and light weight. This project can improve the value and demand of matting made from southern yellow pine lumber, and it can also open new opportunities for cross-laminated timber in other exterior applications.

"Mississippi State University is proud that this project will help further our stewardship of forest resources by both increasing the longevity of wood products in-service and by creating new markets for pine timber. In the case of mats, this work allows us to use a portion of smaller, younger, and more plentiful pine trees in place of larger, more coveted, mature hardwoods. By increasing this product's longevity, we improve our overall sustainability," said **DR. RUBIN SHMULSKY**, professor and head of the Department of Sustainable Bioproducts.

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NOTABLE ACHIEVEMENTS

STUDENT AWARDS

2019-2020 College of Forest Resources award winners in the Department of Sustainable Bioproducts include:

GABRIELLY DOS SANTOS BOBADILHA won the Outstanding Graduate Student Award/Ph.D. Level.

WILLIAM GRIFFIN won the Outstanding Graduate Student Award/Master's Level.

RYAN LURK won the Senior Academic Achievement Award.

NEW COMMERCIAL PRESS INSTALLED IN SUSTAINABLE BIOPRODUCTS

A NEW FRAME PRESS was recently acquired by the department. The commercial press can be used to manufacture oriented-strand board, plywood, laminated veneer lumber. and cross-laminated timber.

The department has a pilot-scale press that will generate 3' x 3' engineered lumber. The new commercial press allows the department to produce boards at scales desired by the industry.

Graduate student CODY **BATES** is the first to conduct research using the press. Bates will be studying bonding pressure, or the amount of pressure applied inside the press, to construct a board and thickness of laminate in each layer of cross-laminated timber. The research is expected to provide the optimal thickness and optimal pressure to construct cross-laminated timber from southern yellow pine.



The new frame press sits in the Timtek Building at the Department of Sustainable Bioproducts complex. (Photo by Karen Brasher)

WILDLIFE, FISHERIES & AQUACULTURE



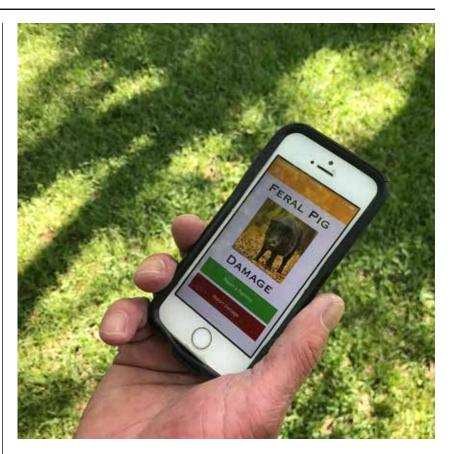
THE WILDLIFE SOCIETY SELECTS MSU COLLEGE OF FOREST RESOURCES FACULTY MEMBER AS FELLOW

A MISSISSIPPI STATE College of Forest Resources faculty member is acquiring the prestigious title of fellow from The Wildlife Society (TWS).

DR. LESLIE BURGER, assistant extension professor in the Department of Wildlife, Fisheries and Aquaculture, was honored at the organization's annual conference held virtually in fall of 2020. As one of the highest awards bestowed by TWS, the honor recognizes Burger for her remarkable service to the wildlife profession.

For the past 12 years, Burger has worked to create programs to educate youth and the broader community about natural resource conservation as it relates to wild-life. She also serves as her department's undergraduate coordinator, preparing students for a future in natural resources.

A native of Jeannette, Pennsylvania, she earned her bachelor's degree in biology at Murray State University in Kentucky, a master's degree from the University of Missouri, and doctoral degree from Mississippi State with a focus on wildlife ecology and education.



MISSISSIPPI STATE DEVELOPS SMARTPHONE APP TO ASSESS WILD HOG DAMAGE

ACCORDING TO A MISSISSIPPI STATE

research study, feral pigs cause \$66 million in property damage in the Magnolia State each year. With the wild hog population increasing and damage estimates constantly changing, it's now easier to report and assess impacts with a newly designed MSU app.

The "Feral Pig Damage" app makes it easy for users to report the location of wild hog sightings and the damage they cause. Users can pinpoint or draw a polygon on a specific location, upload photos, estimate economic loss, and describe multiple attributes about the type of damage—including crop type, whether it's an agricultural, hardwood or pine area, as well as growth stage.

DR. MARK MCCONNELL, app developer and assistant professor, and **DR. BRONSON STRICKLAND**, St. John Family Endowed

Professor of Wildlife Management, collaborated on the project. Partners in the app's development include the Mississippi Agricultural and Forestry Experiment Station, MSU Extension Service, the University of Georgia's Warnell School of Forestry and Natural Resources, the Mississippi Department of Agriculture and Commerce, Mississippi Department of Wildlife, Fisheries, and Parks, and the MSU Forest and Wildlife Research Center's Center for Resolving Human-Wildlife Conflict.

The app is available for download in the Apple Store. Visit https://apps.apple.com/us/app/feral-pig-damage/id1265239102. Android download is available at https://play.google.com/store/apps/details?id=org.bugwood.feralpigdamage.





NATIONAL CONSERVATION GROUP HONORS MSU DEER LAB FOR ENVIRONMENTAL STEWARDSHIP

MISSISSIPPI STATE'S DEER ECOLOGY AND MANAGEMENT LAB received a national award from one of the country's premier conservation groups.

The MSU Deer Lab received the Boone and Crockett Club 2020 Conservation and Stewardship Award. Boone and Crockett Club, the country's foremost big game conservation group, gives the award annually to an organization that best exemplifies two of the club's core values of natural resource conservation and stewardship.

The MSU Deer Lab, founded in 1974 by Drs. Dave Guynn and Harry Jacobson, is recognized as one of the premier applied deer management research units in the U.S. As part as the MSU Forest and Wildlife Research Center and the MSU Extension Service. the lab seeks to address big game management issues regionally and nationally. The lab is co-directed by DR. STEVE **DEMARAIS**, Taylor Chair in Applied Big Game Research and Instruction, and DR. BRONSON STRICKLAND, the St. John Family Professor of Wildlife.

Demarais said the lab's research includes both short- and long-term studies aimed at benefiting landowners, hunters, wildlife managers and other stakeholders interested in the most significant wildlife species of the Southeastern U.S.

For more visit www.msudeer.msstate.edu.

NOTABLE ACHIEVEMENTS

DR. PETER ALLEN, associate professor, received the Regions Bank-Division of Agriculture, Forestry, and Veterinary Medicine Superior Faculty Award in International Research and Outreach.

DR. BETH BAKER, assistant extension professor, received the Region's Bank-MSU Division of Agriculture, Forestry, and Veterinary Medicine's Superior Faculty Award in Extension and Outreach. Baker also received the Graduate School Advisor of the Year Award, sponsored by the Provost and Executive Vice President's Office and the MSU Alumni Association.

DR. STEVE MIRANDA, fisheries professor and assistant unit leader of the USGS Mississippi Cooperative Fish and Wildlife Research Unit, received the Clarence W. Watson Award from the Southeastern Association of Fish and Wildlife Agencies.

DR. GARRETT STREET, assistant professor, received the Region's Bank-MSU Division of Agriculture, Forestry, and Veterinary Medicine's Superior Faculty Award in Teaching.

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STUDENT AWARDS

2019-2020 College of Forest Resources award winners in the Department of Wildlife, Fisheries and Aquaculture include:

MORIAH BOGGESS won the Gluesing Outstanding Graduate Student Award master's level.

REBECCA BRACKEN, doctoral student. won second place oral presentation and MIRANDA HUANG, master's student, won second place poster presentation in Life and Biomedical Sciences at the MSU Graduate Student Research Symposium.

LINDSAY G. CULPEPPER was one of nine freshmen selected as Presidential Endowed Scholarship recipients. Culpepper received a Steve and Melody Golding Presidential Endowed Scholarship.

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ZOE DUDIAK, LAUREN WHITMIRE. and LEIGH ELLEN NOE won the Senior Academic Achievement Award.

ALEXANDRA FIRTH won the Gluesing Outstanding Graduate Student Award doctoral level. Firth was also honored as an MSU Graduate Student Hall of Fame Scholar in 2020.

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NICK MOSBY, a junior, won the Outstanding Undergraduate Student Award.

RAINER NICHOLS won second place for his poster and MORIAH BOGGESS won third place for his presentation at the 43rd Southeast Deer Study Group meeting.

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ANDREW SHAMASKIN, a doctoral candidate, won the David Nabi Memorial Award, which recognizes the graduate student who best exemplifies selflessness in leadership, service, research, and learning. Shamaskin was also selected for a national marine policy fellowship as a 2021 finalist for the John A. Knauss Marine Policy Fellowship program. The fellowship, which began February 2021, took Shamaskin to Washington, D.C., for one year, where he gained experience with the policy-making process in agencies and committees that deal with marine and coastal issues at the federal level

SPENCER WEITZEL, master's student. placed third in oral presentation and **SKYLAR LINER**, junior, placed third as a three-minute lightning talk winner at the 2020 Mike deGruy Bays and Bayous Symposium Student Presentation Awards.

TAITE WILLIAMSON and MADISON **GNOOSE** won the Sophomore Academic Achievement Award

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STUDENT SPOTLIGHT

INSPIRING CONSERVATION FROM IG TO IRL

BY REAGAN POSTON

OR MORGAN ALEXANDER AND MAKAYLA BRISTER, recent CFR alumni and proud creators of Instagram's "Culture and Conservation" account, the conversation about conservation is one that infiltrates their whole lives. However, the aim of "Culture and Conservation" is to create an all-inclusive space that engages its followers with the natural world and demonstrates how we're all impacted by conservation.

Alexander and Brister, two Black women who grew up in urban Jackson and rural Raymond, Mississippi, respectively, share strikingly similar stories as to how they became involved in wildlife and conservation.

"We both grew up outside," Brister said. "We grew up watching Steve Irwin and digging in the dirt and pretending we were from those Dawn commercials washing oil off baby ducks. As much as we loved it, it wasn't something we knew we could make a career out of as Black women until we enrolled in the College of Forest Resources."

Brister graduated in May of 2019 with dual degrees in wildlife, fisheries, and aquaculture and environmental economics and management, which is in the agricultural economics department in the College of Agriculture and Life Sciences. Alexander graduated in 2020 with a wildlife, fisheries, and aquaculture degree. Both remain at the university—Alexander as the public relations and programming coordinator in the Department of African American Studies in the College of Arts and Sciences and Brister as a wildlife, fisheries and aquaculture graduate student studying the use of precision agriculture technology for conservation and economic opportunities across the Black Belt Prairie and Mississippi Delta. It was upon taking these next steps in their futures that the pair decided their collaboration in conservation wasn't finished.

For Brister, the Instagram page is more than just a collection of photos and interesting taglines.

"Culture and Conservation is a brand focused on wildlife, conservation, and environmental education, but it's also a place

that deliberately invites people of color and women into a space traditionally dominated by white men. Of course, it's open for everyone, but it's a place where we can highlight the accomplishments and perspectives of minorities in the field and where we can show other little Black girls pretending to be Steve Irwin that conservation involves them, too," Brister said.

Though Brister and Alexander are both seasoned veterans in the world of conservation, they assure that their aim is meet people where they are, citing pollinators as one of the most common ways they do that.

"We'll have the pollinators-are-necessary-for-life talk with someone, and the next time we see them, they'll tell us how they saw a bee and didn't swat it. It seems like a small thing to not swat a bee, but you know what? We'll take it. Everyone has to start somewhere in their conservation journey," Alexander said.

Though Brister and Alexander started the account to generate interest for a podcast they hope to launch soon, the social media presence they've established along the way, with more than 650 followers and counting, has allowed them to engage their audience digitally with nature and highlight how conservation concerns and welcomes everyone.

"There's not a piece of our lives that isn't affected by nature," Alexander said. "It doesn't matter who you are, and this is something that is often resonant for those of us who live in Mississippi. There's so much history tied up with it. My great-grandparents were share-croppers, which isn't at all uncommon for Black people in the South, and it's not something we can ignore when thinking about the roots of our cultural relationship to nature. It might not be a pleasant truth, but the things I learned about the environment as a child, I learned from my mother, who learned it from hers, who learned it from my great-grandmother. Reconnecting to the environment gives everyone a chance to reclaim and celebrate intergenerational tradition and knowledge, so that both the environment and the culture of conservation can endure for generations to come." *

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Morgan Alexander and Makayla Brister in front of Thompson Hall. (Photo by David Ammon)



2020 GRADUATES



Owen Andrews



Gabrielly Bobadilha



Sara Burran



Jamie Cantey



Marly Carmona



Cole Davis



Dylan DesRochers



Austin Gentry



William Griffin



Lilly Grace Hill



Alison Marchant



Ellen Leigh Noe



Marie Perrigin



Allison Purdue



Madeline Redd



Preston Rushing



Anusha Shrestha



Caleb Simnicht



Robert Smith



Emily Stolz



Jennifer Sublett

Ryan Lurk



Adam Wade



Autumn Watrous

Anusha Shrestha



Lauren Whitmire

SPRING 2020 Graduating Class

Ram Adhikari Samuel Akers Morgan Alexander John Almond Owen Andrews Blake Bagwell Kyler Barnett Craig Bell Elise Benson Alison Berger Charles Boggess Jacob Breeden Wesley Burger Sara Burran Jamie Cantey Marly Carmona Kacy Chapman Alison Childs Darcey Collins Bojan Cosovic Joni Creel Cole Davis James DesRochers Gabrielly Dos Santos Bobadilha

Duston Duffie Charles Dye Bradley Ezekiel Michael Falls Austin Gentry Payton Gilmore Mallory Grady David Grant William Griffin Mackenzie Gunn Dylan Hann Branden Hannah Allison Harris Matthew Harrison Raven Hartley Austin Hartman Colby Henderson Bryan Herron Lilly Grace Hill Savannah Holcombe Daniel Holder Sabhyata Lamichhane Ty Lollar Adrian Lopez Porras John Lowery

Alison Marchant Audrey McCrary Jazmine McGinnis Haley Moore William Nettles Rainer Nichols Ellen Leigh Noe David Norris Kelly Olson Samuel Patrick Joseph Patterson Marie Perrigin Justin Pitts Allison Purdue Kiera Reardon Madeline Redd Bradley Richardson Tyler Rogers Preston Rushing Taylor Saucier Nathan Schroeder Samantha Seamon Shanice Seawright Ganesh Sedhain

Caleb Simnicht Dalton Smith Robert Smith Nicholas Sprinkle Leah Stewart Lucas Stewart Elliot Stockett **Emily Stolz** Jennifer Sublett James Sullivan Daniel Taylor Thomas Terral Ryan Thomason Kelsey Torres-Schroeder Adam Wade Joseph Walters Autumn Watrous Iason Watson Geneva White Lauren Whitmire Bayley Wilmoth Emily Wilson Corey Yarber Marcus Young

30 CFR

Natasha Drotar







Richard Campbell



JP Cromwell



Collins Finch



Alexis Higgins



Erik Johnson



Brady Kepper



Mahesha Kuluppuarachchi



Mark Lance



Sunith Babu Madduri



Megan Martin



Rachel Nation



Tedrick Ratcliff



Katie Strickland



Mason Thomas



Stone Turner

FALL 2020 GRADUATING CLASS

Catrina Bates Bradley Boykin Tea Burdine Marshall Callicott Richard Campbell Alexandra Chodzin JP Cromwell John DelPapa Robert DeVries Kayla Drouilhet Matthew Dziamniski

Collins Finch Kelsey Fleming Utsaha Gurung Savannah Harville Harrison Henderson Alexis Higgins Benjamin Holifield Erik Johnson Brady Kepper Mahesha Kuluppuarachchi Shaina Lampert

Mark Lance Sunith Babu Madduri Megan Martin Adam McKnight Heidi Miller Rachel Nation Kripa Neupane Brandon Palmer James Parker Cody Peak Tedrick Ratcliff

Mallory Risinger Courtney Selby Hunter Stapleton Katie Strickland Cannon Stroud Mason Thomas Stone Turner Iennifer Warman Hunter Weatherford Spencer Weitzel Kenneth Wells

CHANGING OF THE GUARD

NEW FACULTY



DR. ERIC HILEMAN joined the Department of Wildlife, Fisheries and Aquaculture as an assistant research professor. He received a bachelor's at the University of Wisconsin–Parkside, a master's at the University of Wisconsin–Milwaukee, and a Ph.D. at Northern Illinois University. All three degrees were in biological sciences. His research interests center on population ecology and factors such as management practices, land use changes, and disease, which regulate vital rates, population dynamics, and species distribution.



DR. AUSTIN HIMES joined the Department of Forestry as an assistant professor. He received a bachelor's in English literature and a bachelor's in environmental science from the University of Oregon, a master's in environmental and forest science from the University of Washington, and a Ph.D. in forest ecosystems and society from Oregon State University. His research interests include silviculture, forest ecology, ecosystem services and nature's benefit to people, and short rotation woody crops for bioenergy.



DR. ERIC MCCONNELL joined the Department of Forestry as an assistant professor. He received his bachelor's in forestry at Louisiana Tech University and his master's in forest products and Ph.D. in forest resources from Mississippi State University. His research interests include forest industries, business and operations, and wood utilization.

RETIREMENTS

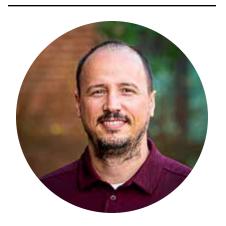
DR. RANDY ROUSSEAU, extension and research professor in the Department of Forestry, retired after 14 years of service. As a forest geneticist, Rousseau developed the Land Owner Tree Improvement Cooperative to encourage landowners to invest in better seedlings. In 2019, Rousseau was named a James R. Moreton Fellow in Forestry.



NEW FACULTY



DR. ADAM POLINKO joined the Department of Forestry as an assistant professor. He received his bachelor's and master's in forestry from Northern Arizona University and his Ph.D. in forestry from the University of British Columbia. His research interests focus on silviculture and forest stand dynamics. Specifically, he is interested in tree and stand growth across gradients of site quality and competition as well as the development of mixed species stands.



DR. BRUNO DA SILVA joined the Department of Forestry as an assistant research professor. He received his bachelor's in forestry from Universidade Federal do Paraná, his master's in silviculture and forest management from Universidade de São Paulo, and a master's in economics and a Ph.D. in forest economics from North Carolina State University. His research portfolio focuses on timber and non-timber products' economics, forest management of small and large landscapes, forest disturbances, such as wildfire and deforestation, and business strategies.



DR. XUEFENG "JASON" ZHANG joined the Department of Sustainable Bioproducts as an assistant research professor. He received his bachelor's and master's in wood science from Nanjing Forestry University in China and his Ph.D. in forest resources from MSU. His research interests include the development of functional materials using natural biopolymers including cellulose, lignin, and chitin for environmental and energy application.

ALUMNI NEWS



W. MICHAEL AUST (Forestry 1982, 1985) was named the Honorable Garland Gray Professor of Forestry by the

Virginia Tech Board of Visitors. He is a professor of forestry in the College of Natural Resources and Environment at Virginia Tech where he has been a member of the faculty since 1989. His work has focused on maintaining and improving long-term sustainability of managed forests.



JUSTIN JOHNSON

(Forestry 1994) is living his dream of protecting Eglin Air Force Base's diverse ecosystems. He was featured

as an Air Force CE: Into the Wild profile in 2020. For almost 20 years, Johnson's passion, purpose, and proactive approach to endangered species have helped keep Eglin's test and training missions on track.



TODD MATTHEWS

(Forestry 2000) was named forest management chief for the Mississippi Forestry Commission. He has

been with the commission for more than 17 years and most recently served as assistant forest management chief and coordinator for the Forest Stewardship Program and Forest Health Program.



Two MSU alumni were recently reunited at a U.S. Army training event in Fort Irwin, California. Chaplain (Major) **SHAWN EARLES** (Wildlife and Fisheries 2000) and Chaplain (Captain) SCOTT **EDWARDS** (Forestry 2001, Wildlife Science 2004) were friends and classmates at MSU, yet neither realized that they had become ordained ministers in recent years and joined the Mississippi Army National Guard as chaplains. They recently completed a 30-day training rotation at the grueling National Training Center in the Mojave Desert and rekindled their friendship. Earles serves as the battalion chaplain for the 2-198th Combined Arms Battalion headquartered in Southaven. Edwards serves as the battalion chaplain for the 106th Brigade Support Battalion headquartered in Hattiesburg; both units are part of Mississippi's 155th Armored Brigade Combat Team.

OBITUARIES



GEORGE DONALD MILLER, JR. (Forest Products 1999) Miller, 64, died on January 8, 2021 in Starkville,

Mississippi. Miller worked at Mississippi State University for over 40 years, with the last 34 as a research associate in the Department of Sustainable Bioproducts (formerly the Forest Products Lab). He was committed to seeing that the students received the best education possible and wanted each one to be a success.

Miller was an avid MSU baseball fan and before the stadium renovation, he could always be found in the right field with his broom, waiting for the "clean sweep" of a series. He was also very passionate about caring for animals.

He was preceded in death by his parents, George D. Miller, Sr. and Elizabeth Fancher McKenzie; and his sister, Grace Marie Miller.

He is survived by his aunt, Martha Fancher, and cousins. He will be missed by his many friends who loved and cared for him.

"George was a critical member of our department with respect to resin/adhesives, engineered composites, safety, and facilities. George was always concerned about the students. He was passionate about their education and research and wanted each student that ever came into our fold to be successful," said Dr. Rubin Shmulsky, sustainable bioproducts professor and department head.



DR ROY DELBERT ROSS (Forestry Former Faculty) Ross, 91, of Ozark, Missouri, died on July 27, 2020, in

Cox Medical Center South in Springfield. As a young man, Ross joined the United States Army and proudly served his country. After his military service, he attended the University of Missouri, where he received his bachelor's degree. He continued on to earn his master's degree from the University of Georgia and his doctoral degree from Syracuse University. After receiving his doctorate, Ross became an associate professor at Mississippi State University in the forestry department, where he served for 36 years until his retirement in 1992.

Ross was preceded in death by his daughter, Robin Ross, his parents Caroline and Oliver, and his five siblings Clarence, Chester, Jesse, Anna Chloe, and Charley.

Ross is survived by his son, Russell Ross and wife Heather; his son, Randall Ross; and his son, Ryan Ross and his partner, Tony. He is also survived by eight grandchildren and five great-grandchildren. Ross loved his Mississippi State Bulldogs, Missouri Tigers, and St. Louis Cardinals.



DR. ROLAND REAGAN (Wildlife, Fisheries and Aauaculture Former Faculty)

Reagan died on August 26, 2020. He was born on October 26, 1942 in Montgomery, Alabama to Roland Sr. and Ora Nell (Thompson) Reagan. Growing up in Montgomery, Reagan loved to fish, hunt, and play football. He graduated from Auburn University in 1964 with a bachelor's degree and again in 1969 with a master's degree. He then attended North Carolina State University receiving a doctorate in aquaculture in 1973. Reagan spent his career as a professor at Mississippi State University where he earned the rank of full-professor.

In 2003, Reagan moved to Butte to marry the love of his life, Rosemary McNellis. Roland loved living in Butte. He especially loved learning about the mining history of the area, driving through the Big Hole and Wise River valleys, and describing Butte's weather to friends and family not living in Montana. Reagan was a member of the Southwest Montana Church of Christ.

Roland is survived by his wife Rosemary Reagan of Butte; his sister Jo Anne Woociker (Sam) of Enterprise, Florida; brother Raymond Reagan of Montgomery, Alabama; a cousin Gail Hartin of Potterville, Michigan; sister-in-law Ginger (Bob) Toivonen of Butte, Montana; sister-in-law Margie McNellis of Helena, Montana; sister-in-law Barbara (Joe) Comfort of Turah, Montana; brother-in-law Jim McNellis of Tacoma, Washington; stepsons Allen (Bobbie) Chatriand of East Wenatchee, WA; Craig Chatriand of Pocatello, ID; Paul (Tamrah) Chatriand of Helena, MT; and numerous nephews, nieces, and grandkids. He was preceded in death by his parents Roland Sr. and Ora Nell Reagan.



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