AUBURN UNIVERSITY

School of Forestry & Wildlife Sciences

Remembering Martha Dixon

1915-2017

pg. 2

FEATURE STORY

A tiny creature helping solve big problems pg. 4

WHAT'S INSIDE

SFWS NEWS • Spring 2018

Working with Nature for Society's Well Being

In This Issue

Upcoming Events

Golden Eagles Luncheon, March 23
Compass Circle Roundtable and Social, March 29
Student Awards Ceremony, April 11
Spring Graduation, May 6

sfws.auburn.edu/give
Learn how you can support SFWS.

sfws.auburn.edu/newsletter
Visit our newsletter website to read past issues and access digital content related to stories you see here. When you see one of the icons below, you know more content is available online.

slide show · video · related articles

President Leath's Visit

Dean's Round Table

Online Exclusive Content

Visit auburn.edu/sfws for more on these stories.

Auburn Oaks Rosser Dedication

Dean's Tailgate

THIS IS AUBURN.

AUBURN UNIVERSITY
SCHOOL OF FORESTRY AND WILDLIFE SCIENCES

602 Duncan Drive
1161 W. Samford Ave., Bldg. 8
Auburn, AL 36849-0001

NON-PROFIT ORG.
U.S. POSTAGE
PAID
AUBURN, AL
PERMIT NO. 9

A Message from the Dean

Dear Alumni and Friends:

Mrs. Martha Dixon's recent passing has given us pause to reflect on Auburn's history and the significant impact of the Dixon's educational and philanthropic legacy. Under Doris Tyler's leadership, Martha Dixon and the Solon and Martha Dixon Foundation fulfilled Solon's wishes for Auburn University to become an internationally known, top-ranked natural resources program in the state and nation.

With their support, we have seen the Solon Dixon Forestry Education Center grow to include a state-of-the-art learning center, dormitories, and other amenities that have combined to create one of the finest facilities of its kind in the nation. The Foundation's support has also established other educational programs at Auburn such as the Solon Dixon Endowed Professorship and the naming of the Dixon Executive Conference Room, which contributed toward the construction of the School of Forestry and Wildlife Sciences building. These investments have allowed the school to attract world-class faculty and provide a high-quality educational experience for our students.

We, at the School of Forestry and Wildlife Sciences, honor the Dixons' vision by striving every day to develop well-prepared graduates for the workforce, identifying practical and forward-thinking solutions to industry challenges, and providing a continuous flow of resources and information for landowners, practicing foresters, industry professionals, government representatives, and the general public.

Please join us in continuing this important work with a memorial donation to benefit the Solon Dixon Forestry Education Center or to one of the school's many other programs in support of education and the state's natural resources.

Wishing you good health and prosperity in 2018!

War Eagle!

Best regards,

Dean Janaki R.R. Alavalapati

Alumni & Friends

Martha Dixon, Andalusia philanthropist and longtime friend of Auburn University, passes away

Martha during a celebration of her 100th birthday

Martha Dixon, widow of Solon Dixon and former president of the Solon and Martha Dixon Foundation, passed away December 16, 2017, at her home in Andalusia at the age of 102.

A WWII veteran and retired employee of Alatex, an Andalusia manufacturing company, Martha married Solon Dixon, a pioneer of the state's forestry industry, at Huntingdon College in 1976.

Their shared sense of community and passion for education and the state's natural resources fostered a lifelong philanthropic legacy which has benefited Auburn and many other organizations within the state.

Shortly after the sale of the Dixon Family timber enterprise in 1976, which included sawmills, turpentine stills, gristmills, and farms, the Dixons formed the Solon and Martha Dixon Foundation in support of forestry education, the arts, health organizations, and other charities.

As a 1926 graduate from Auburn University, Solon Dixon aspired to promote excellence in forestry education by providing students with a hands-on laboratory to develop and practice responsible forest management.

In 1978, the Dixons fulfilled this vision with an initial monetary donation and 80-acre gift of land to Auburn. This land would later combine with another larger deed of property—at the time the largest of its kind in Auburn's history—to create the Solon Dixon Forestry Education Center, a 5,350-acre forestry and wildlife conservation education facility in Andalusia.

After Solon's death in 1986, Martha served as president of the foundation's board of directors until 2001. With the assistance of its current members, including Board President Doris Tyler, she continued her involvement with the foundation until her own passing.

Nearing 40 years of operation, the Solon Dixon Forestry Education Center has been a cornerstone of the School of Forestry and Wildlife Sciences' educational program.

In addition to Auburn students, thousands of university students and natural resource managers from Alabama and across the country visit the center annually to learn best practices in forestry, wildlife, and natural resources management.

Martha and Solon Dixon shown on the property they would donate to create the Solon Dixon Forestry Education Center.

School of Forestry and Wildlife Sciences Dean Janaki Alavalapati credits Martha's leadership of the foundation for the success of the center. "It is this unique educational asset that allows the school to excel in preparing resource managers," says Alavalapati.

With the support of the foundation, the Dixon Center has grown to include the 6,500-square-foot Solon and Martha Dixon Foundation Learning Center, which houses a state-of-the-art auditorium, classroom and conference room; two large bunkhouses, five semi-private dormitory buildings, a rec center, administrative building, classroom and computer lab building, maintenance shop, and cafeteria.

"Martha was instrumental in fulfilling Solon's wishes, and we are very grateful she was able to see the many generations of students graduate from Auburn with the knowledge and skills necessary to become leaders in their field," said Alavalapati.

In addition to their significant contributions to Auburn, the Dixons also supported many other educational programs and institutions in the Andalusia area, including the Lurleen B. Wallace Community College, Lyman Ward Military Academy, and Camp ASCCA.

Martha was awarded an honorary doctorate degree from Auburn University in 1991.

She was born in Covington County in 1915 and was preceded in death by her parents, Fannie Brewer Belvin and Robert L. Belvin; her sister, Allie Dunn; and her husband, Solon Dixon. She is survived by her extended family and many devoted friends within the community of Andalusia.

Funeral services and interment were held on December 28, 2017, at the Solon Dixon Forestry Education Center. Memorial gifts may be made to the Dixon Center through the Auburn University Foundation, 317 South College Street, Auburn, AL 36849.

Photo Credits – Cover: Solon and Martha Dixon Foundation, Top: Andalusia Star, Bottom: Solon and Martha Foundation

School of Forestry & Wildlife Sciences

SFWS NEWS • Spring 2018

Dean ..... Janaki R.R. Alavalapati

Associate Dean of Academic Affairs ..... Scott Enebak

Associate Dean of Research ..... B. Graeme Lockaby

Managing Editor ..... Jamie Anderson

Office of Communications and Marketing

Project Manager ..... Mike Hales

Editor ..... Hayley Harris

Designer ..... Mary Huddleston

Contact Us

The SFWS newsletter is distributed to alumni and friends of the school. Inquiries and suggestions concerning the newsletter should be directed to the school's Office of Communications and Marketing at the address below.

Auburn University School of Forestry and Wildlife Sciences
Office of Communications and Marketing
602 Duncan Drive • Auburn, AL 36849
334-844-9248 • sfwscom@auburn.edu

Giving

Questions concerning the school's development program, including annual and corporate giving, planned gifts, and estate planning, should be directed to Heather Crozier, School of Forestry and Wildlife Sciences Building, 602 Duncan Drive, Auburn, AL 36849. Inquiries may also be made by email to vannhea@auburn.edu or by phone at 334-844-2791.

AUBURN UNIVERSITY
SCHOOL OF FORESTRY AND WILDLIFE SCIENCES

sfws.auburn.edu

In The Spotlight

Gov. Ivey awarded forest certification by Alabama TREASURE Forest Association

The Alabama TREASURE Forest Association (ATFA) recently presented Alabama Gov. Kay Ivey with the TREASURE Forest Certification for her property in Monroe County.

The TREASURE Forest Program was established in 1974 and recognizes landowners for following the values outlined in its acronym: Timber, Recreation, Environment, Aesthetics, Sustainability, Usable, and Resources.

During the joint ATFA and Alabama Natural Resources Council awards banquet held in Florence, Governor Ivey addressed landowners and industry representatives, noting the importance of forestry to Alabama's economy and commending forest landowners for their stewardship.

"I, too, understand and join with you in caring for what God has entrusted us," Ivey said. "In fact, from the very, very beginning, God told mankind to care for the earth. With your efforts and your leadership, we're fulfilling that responsibility."

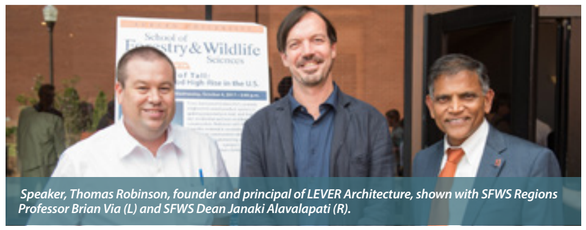
An Alabama native and Auburn University alumna, Ivey's statements reflect her commitment to the state's natural resources and its forestry industry.

Recently Ivey participated in a press event to announce a nearly $20 million investment by International Beams, a Florida-based wood products company, for a new manufacturing facility located near Dothan where they will produce cross-laminated timber panels (CLT) and glue-laminated beams.

"IB's decision to locate this innovative, technologically advanced manufacturing facility in Dothan sends a clear message to the world that Alabama is an ideal destination for investment and job creation," Ivey said in a statement.

From left, Alabama Farmers Federation President Jimmy Parnell, ATFA Executive Director William Green, Alabama Forestry Commission's Ryan Holland, Ivey, State Forester Rick Oates, and Alabama Department of Wildlife and Freshwater Fisheries' Andrew Green.

Attendees browsed exhibits showcasing bio-based architectural design and products.



Speaker, Thomas Robinson, founder and principal of LEVER Architecture, shown with SFWS Regions Professor Brian Via (L) and SFWS Dean Janaki Alavalapati (R).

SFWS hosts stakeholders for sustainable construction seminar and discussion on the emerging bio-based economy

The School of Forestry and Wildlife Sciences hosted a seminar and reception, "Future of Tall: Building a Wood High-Rise in the US," on Oct. 4 at Auburn's Telfair B. Peet Theatre. Thomas Robinson, architect and founder of the Portland, Oregon-based international architectural firm LEVER Architecture, answered the question: Can high-rise buildings be made of wood?

Nearly 400 faculty members, students, and industry stakeholders were in attendance for the seminar where Robinson shared how the use of CLT is revolutionizing sustainable construction with details about his firm's pioneering use of CLT in "Framework," a Portland construction project slated to become the first mass timber high-rise in the US.

The seminar and reception were organized in partnership with the Office of Vice President for Research and Economic Development, Facilities Management, Office of Sustainability, Alabama Cooperative Extension System, and the colleges of Agriculture, Engineering, and Architecture, Design and Construction.

Prior to the seminar, the SFWS invited industry stakeholders, researchers, and students to participate in a panel discussion and luncheon titled "Moving toward a Sustainable Bio-based Economy." Auburn faculty guided academic and industry panelists in discussion about research and development of forest bio-based products such as CLT and structural products, bio-energy and chemicals, nanocellulose, and packaging.

Fall Icebreaker and Family Open House

During the Homecoming Barbecue, Dr. Nancy Loewenstein (left of Aubie) provided an identification tour for alumni and their guests.

Forestry Club

Forestry Club students volunteered their time to help with storm cleanup at the Kreher Preserve and Nature Center after one of the many tropical storms that impacted our area.

Portable Sawmill

Forestry students were recently trained to use the portable sawmill to show them various aspects of wood measurements, growth, products, and quality.

New Faculty & Staff

Please join us in welcoming new faculty and staff.

Kara Ball
wildlife technician

Dr. Guangsheng Chen
research fellow

Troy Dunn
wildlife technician

Wendy Franklin
student recruiter and event coordinator

Dr. Sabahattin Isik
research associate

Dr. Adam Maggard
assistant professor and extension specialist

Dr. Ryan Nadel
assistant research professor

Dr. Rich Stanton
postdoctoral fellow

Awards & Recognition

Congratulations to our faculty and students on their recent achievements.

Dr. Chris Lepczyk & Dr. Brian Via were promoted as full professors.

Dr. Joseph Fan earned tenure.

Dr. Latif Kalin selected as an Environmental & Water Resources Institute Fellow.

Sarah Lessard (Maj. Prof. Wayde Morse) received the Auburn Master's Thesis Award and was chosen as a Sea Grant John A. Knauss Marine Policy Fellow.

Dr. Lisa Samuelson chosen as one of "Four Top Women Researchers" by the Office of the Vice President for Research and Economic Development.

Fall 2017 Dean's List.

Congratulations to our students who qualified for the Dean's List.

Cullen Anderson, Elizabeth Barnette, Mary Jo Berkstresser, Crystal Boutwell, Daniel Bowman, Brandon Buckelew, Alexandria Crow, Kate Custer, Drew Davis, Alisia Diamond, Areta Dickerson, Tara Durboraw, Arielle Fay, Sara Hankins, Victoria Harrison, Tucker Heptinstall, Aida Holland, Cody Krause, Abigail Morgan, Henry Morris, Bailey Morton, Autumn Patterson, Marissa Plunk, Seth Rankins, Gabrielle Ripa, Scott Seelbinder, Walker Shortnacy, Andrew Sinclair, Zach Singh, Zach Slay, Katherine Stahl, Megan Swanson, Ansley Wellham, Olivia Wilkes, Max Williams, and Marcus Williford

Of Mice and Medicine

A tiny creature helping solve big problems

Is it possible to improve genetic science and grow opportunity in an impoverished nation, while improving the conservation of a threatened species?

Auburn professor **Sarah Zohdy**, as part of a multi-institution research team, says that the Madagascar mouse lemur, a primate half the genetic distance between mice and humans, is the ideal candidate to transform the future of biomedical research, all while conserving the species and creating opportunity for the Malagasy people, according to a study published in the scientific journal *Genetics*.

Zohdy, an assistant professor of disease ecology in Auburn's School of Forestry and Wildlife Sciences and College of Veterinary Medicine, collaborated on the study, titled "The Mouse Lemur, a Genetic Model Organism for Primate Biology, Behavior, and Health," along with several other scientists from the Department of Biochemistry and Department of Comparative Medicine at Stanford University, Howard Hughes Medical Institute, and the Department of Animal Biology at the University of Antananarivo, Madagascar.

The researchers have developed a new genetic model organism and a framework for how health and biomedical research can be conducted in a way that can simultaneously improve conservation efforts, contribute to the development and education of a poverty-stricken nation, and transform the future of biomedical research in a way that considers the biology and ecology of the organism to be critical for the advancement of our understanding of human health and well-being.

Biomedical research traditionally focuses on understanding a model organism to improve our understanding of human health and disease and lead to advanced treatments and even cures. Fruit flies, zebrafish, and mice are well-studied laboratory model organisms, which, in the last century, have dramatically improved our understanding of human development, genomics, and disease.

"We have a very thorough understanding of these organisms at the genomic and phenomic levels, possibly more than any other organisms on earth," said Zohdy. "The animal model closest to humans physiologically is the mouse. However, it is now recognized that nearly 50 percent of the time the mouse model, or knockout, created to better understand human disease fails to present with the same symptoms as humans."

A knockout mouse is a genetically modified mouse where an existing gene has been inactivated or replaced with an artificial piece of DNA. This allows researchers to better understand the role of the gene in relation to its normal behavior or physiology.

"For decades, scientists have relied on mice, fruit flies, and worms as genetic models, but despite all their success, these organisms routinely fail to mimic many aspects of primate biology, including many human diseases," said Mark Krasnow, professor of biochemistry at Stanford University.

Frustrated by the lack of a good study model, Krasnow and his colleagues turned to the mouse lemur, the smallest primate in the world, found only on the island of Madagascar.

Though plentiful on the island, mouse lemurs, like all lemurs are threatened due to habitat loss, and many species are considered endangered or critically endangered. Also problematic, the mouse lemur only produces four to six babies per year, thus normal research methods of producing genetic knockouts using this species would require more time since they do not reproduce as frequently.

Realizing the limitations of studying the mouse lemur in a traditional lab environment, Krasnow turned to Zohdy, an ecologist who has studied the natural history of wild mouse lemurs in the eastern rainforests of Madagascar.

Zohdy's long-term research in Madagascar has produced a well-established field protocol with more than 500 individually identifiable wild mouse lemurs, many of which have been captured and recaptured annually for nearly 10 years.

It was during their initial meeting in 2010 in Madagascar that Zohdy discussed with Krasnow the societal and ecological benefits of studying the wild free-ranging mouse lemur.

> "Through noninvasive advanced imaging and phenotyping and genotyping technologies, it is possible to understand the physiology and ecology of wild lemurs. We have an identified population which can be studied and then returned immediately back to the wild on the same branch they were captured."
>
> - Sarah Zohdy

"Instead of introducing mutations in mice or fruit flies, we are doing something much more similar to what is done in humans," he said. "We are looking at all the wonderful genetic variation already existing in nature, since there are so many millions of mouse lemurs out there. We calculate that most knockout mutations are already present in nature, and all we have to do is find them. And because the cost of sequencing a genome is rapidly dropping, it's now possible to sequence the genomes of thousands of mouse lemurs to see what mutations they are carrying."

In doing so, the researchers could accomplish in a few years for a tiny fraction of the cost what the International Knockout Mouse Consortium will accomplish in 10 years, at a cost of nearly $1 billion, he said.

Establishing a field study in Madagascar, the researchers are building capacity on the island by teaching local Malagasy guides and students about mouse lemurs and training them in the use of modern genomic techniques.

"Technology is so advanced today that the ideal way to build capacity and educational programs in Madagascar while simultaneously working with a new model organism was to bring the 21st-century world of genomics to Madagascar," said Zohdy.

At Zohdy's research center and field site in Ranomafana, Madagascar, at Centre ValBio, the research team has created a sophisticated molecular biology and genetics lab where the scientists are able to conduct research in the field and use it as a training opportunity for Malagasy students. This is more efficient for researchers than collecting samples for analysis at high tech laboratories in the US or Europe, and it provides revenue and educational opportunity for the local population.

The scientists report that they already have identified more than 20 individual lemurs with unique genetic traits, including obesity, high cholesterol, high blood sugar, cardiac arrhythmias, progressive eye disease, and motor and personality disorders. The lemurs have also been found to develop a form of dementia and accumulate plaques in the brain that resemble those of Alzheimer's patients.

"I hope that this research will build awareness and improve our understanding of the biology and ecology of mouse lemurs, and all lemurs, to become a model example of the intersection of field ecology and modern advanced genomics," said Zohdy. "Ultimately I hope this framework can be used to advance modern genomics in a way that can also be used to help conserve the natural world."

Brown mouse lemur (Microcebus rufus) during handling.

Auburn and Malagasy researchers preparing the mouse lemur mobile lab in the jungle.

Malagasy schoolchildren looking at microscope slides through the Stanford-developed Foldscope, a paper microscope that can be used for educational outreach even in the most remote settings.

The smallest primate in the world, the Madagascar mouse lemur (pictured here the Gray mouse lemur, Microcebus murinus) is a primate half the genetic distance between mice and humans.

SFWS scientist part of research team identifying impacts of deforestation

An Auburn University scientist is part of an international research team that has identified the impacts of deforestation on global biodiversity. Breaking up the rainforest into small, isolated patches is forcing more species to live at the forest edge and putting those that are dependent on the forest core at risk, according to the team's study.

The research article, "Creation of Forest Edges has a Gobal Impact on Forest Vertebrates," published in the prestigious scientific journal, *Nature*, highlights how biodiversity is changing as a result of deforestation—forcing some species to the brink of extinction while others flourish in the changing environment.

The team includes Auburn postdoctoral fellow Brian Klingbeil of the School of Forestry and Wildlife Sciences and was led by Newcastle University, United Kingdom, and Imperial College London. The scientists collected data for over 1,500 forest vertebrates and found that 85 percent of species are now being impacted by this forest fragmentation.

The winners are those that seek out the forest edge while the losers are those that rely on the forest core and whose habitat is being constantly squeezed.

"Tropical forest loss and fragmentation is a global threat to biodiversity and many vertebrate species are at risk of extinction from human activities," said Klingbeil. "An important step to protect these species, is to know exactly how human-induced fragmentation of the land is impacting the animals that live there."

This aerial photograph of Amazon rainforest shows fragmentation and the creation of edges as a result of human activity. The site is near Iquitos, Peru, where Auburn scientist Brian Klingbeil studied bat communities. (Photo by Stephen P. Yanoviak)

Researchers study longleaf pine drought resilience

by Kristine Fedorenko

Troughs intercept rainfall and transport it off the plot.

Longleaf pine ecosystems may be the key to creating more drought resilient forests and help sustain crucial plant and animal habitat.

Dwain G. Luce Professor of Forestry Lisa Samuelson, who is also an Auburn Alumni Professor and director of the Center for Longleaf Pine Ecosystems in the School of Forestry and Wildlife Sciences, leads a longleaf pine experimental drought study in Marion County, GA.

"There is increased interest in the restoration of longleaf pine forests for forest products, a variety of important ecosystem services, and more recently, as a species resistant to disturbances associated with changes in climate," said Samuelson.

Along with Samuelson, research associate Tom Stokes and graduate students Michael Ramirez, Jake Blackstock, and Caren Mendonca work to collect field data and perform analyses.

Assistant Professor Sanjiv Kumar and graduate student Ashutosh Pandey will conduct the modeling experiments to study soil moisture dynamics using the community land model.

"Our study is unique in that we are removing precipitation to study drought effects, whereas most studies utilize irrigation to remove drought effects rather than create drought," said Samuelson.

The research site, owned by the Georgia Department of Natural Resources and managed by The Nature Conservancy, is located on an 11-year-old longleaf pine plantation. "The study is located on Army compatible use buffer lands, which are important in lessening environmental constraints on Fort Benning and in coordinating habitat conservation planning," said Samuelson.

"Our research will provide information on the current and future vulnerability of longleaf pine to drought. The data will also be used in parameterizing process-based models that simulate longleaf pine growth under varying climate and fire regimes," explained Samuelson.

The research from the study will be published in various journals including *Tree Physiology*; *Forest Ecology and Management*; *Trees Structure and Function*; and *Ecological Applications*.

Graduate student Caren Mendonca measuring needle phenology.

Scientists identify factors contributing to West Nile virus outbreaks

In a study published in the *Journal of Vector Ecology*, Auburn researchers have identified climatic, ecological, and socioeconomic factors contributing to the incidence of West Nile virus, with further studies underway to refine risk predictions that could help public officials save lives during West Nile virus outbreaks within flood-prone or hurricane impacted areas.

Graeme Lockaby, professor and associate dean of research in the School of Forestry and Wildlife Sciences, is the lead author of "Climatic, Ecological, and Socioeconomic Factors Associated with West Nile Virus Incidence in Atlanta, GA." His Auburn colleagues, associate professor Wayde Morse, Professor Latif Kalin, and researchers Robin Governo and Rajesh Sawant, served as co-authors among the multi-agency research team that included scientists from the University of Georgia and Pennsylvania and the USDA Forest Service.

"Our research indicates that climate and meteorological conditions, vegetation characteristics, land use and land cover type, and socioeconomic factors directly contribute to the presence of West Nile virus," Lockaby said. "More specifically, soil moisture and temperature, as well as forest size and pine composition of forests were significantly correlated to the vector index."

Lockaby is heading a new two-year study with graduate student Nicole Castaneda, in conjunction with the Audubon Society and US Forest Service, to further refine our ability to determine locations of highest or lowest risk for West Nile virus based on the presence of specific risk factors. Castaneda will characterize bird species diversity, soil wetness, age, and species of trees and socioeconomic factors near mosquito sampling sites across Atlanta. Her data will clarify the mechanisms behind some of the first study's findings and improve the accuracy of risk predictions.

SPOTLIGHT on alumni

ORVILLE BACH '69

Interpretive Park Ranger, Yellowstone National Park

Orville "Butch" Bach credits SFWS with dream job at National Park Service

by Maggie Smith

Orville "Butch" Bach Jr. always knew working for the National Park Service was his dream job, even when he was studying in the Auburn University College of Business.

Bach, now an interpretive park ranger at Yellowstone National Park, credits the School of Forestry and Wildlife Sciences for his dream job becoming a reality. "Everything I have accomplished I can relate to my education at Auburn," he says.

While a student at Auburn, Bach spent two summers in Yellowstone working for the food and lodging company. "I fell in love with the place and realized I wanted to work for the National Park Service; however, I was too far along in my coursework to change majors," Bach said.

Bach, a 1969 Auburn graduate, took classes in the School of Forestry and Wildlife Sciences, such as wildlife management, wildlife biology, and wildland recreation so he could one day work for the National Park Service. "I carefully studied the necessary qualifications to be eligible to work for the National Park Service and selected electives within my major," Bach said.

Some of Bach's responsibilities at Yellowstone include staffing the visitor center, conducting living history demonstrations, and giving guided tours of the park.

Today, the SFWS offers courses that prepare students to follow in Bach's footsteps to potentially work for the National Park Service. "We now have a minor in nature-based recreation and ecotourism that trains you for exactly what Bach does," said Wayde Morse, an associate professor at the SFWS.

Classes such as environmental interpretation and ecotourism prepare students to work as an interpretive park ranger.

Also, just like Bach, students do not have to be SFWS majors in order to minor in nature-based recreation. "A minor in nature-based recreation is available to anyone on campus," Morse said.

Students who choose the career path of park ranger or other similar positions can feel certain that their education at the SFWS will prepare them well. "The School of Forestry and Wildlife Sciences courses were perfect for the challenges I faced in being a ranger at Yellowstone," Bach said.

Photo credit – Yellowstone Insider

Our Newest Leadership-Level Donors

The **Woodlands and Wildlife Society** (WWS) is composed of the SFWS' most loyal donors who support the school with annual contributions of $1,000 or more.

New Members
Charley Walker Foundation
Mr. David Conway Jr.
Mr. Arthur C. Herndon
Mr. J and Mrs. John Harry Lange III
Louisiana Pacific Corporation
Mr. and Mrs. Bob Lowe
Mr. Alexander McCall
Mr. and Mrs. Bryant Mende
Mr. and Mrs. Wayne Pearce
Mrs. E. Devery Wright

The **Compass Circle** (CC) is our young alumni society launched in May 2016 as an opportunity for alumni within their first 15 years after graduation to reconnect with fellow students and grow their business network through annual giving.

New Members
Mr. Flynt Barksdale '08
Mr. John D. Bennett '08
Mr. Thomas D. Bowen '11
Mr. Skylar Clark '10
Mr. Scott E. Corley '10
Mr. Brandon K. Craft '15
Mr. Michael Delaney '03
Mr. Malachi Gandy '11
Mr. Michael W. Heatherly '08
Mr. Jacob D. Lembke '13
CPT Brandon James Loomis '16
Mr. Hamed Majidzadeh '16
Mr. Wes Peters '15
Mr. Kelly Raulerson '08
Mr. Kevin Rose '04
Mr. Matt Sams '02
Mr. Ben Simms '11
Dr. Emily Anne Stutzman '10
Mr. Daniel Wyrick '05

Funds garnered through these leadership societies are invaluable in supporting scholarships, opportunities for faculty development, technology upgrades, and special programs. For a complete list of members, visit auburn.edu/sfws.

Roberson Climbs Mount Kilimanjaro

Congratulations to Auburn alum and friend of the SFWS, Joe Roberson '88, on his recent summit of Mount Kilimanjaro! Here is Joe, proudly flying the Auburn flag with his guide, Henry.

Extension & Outreach

Dr. Max Walker, center, receives a W. Kelly Mosley Environmental Award from Dr. Mark Smith, left, executive secretary of the W. Kelly Mosley Awards Program, and Crenshaw County extension coordinator Derek Bryan, who nominated Dr. Walker for the award.

W. Kelly Mosley Environmental Award

Dr. Max Walker of Crenshaw County was awarded a W. Kelly Mosley Environmental Award for Achievement in Forestry, Wildlife, and Related Resources in November 2017. As an owner of a certified tree farm and TREASURE forest, Dr. Walker has been a strong supporter and active promoter of wise use management of Alabama natural resources. Through his leadership and support roles in the Crenshaw County TREASURE Forest Chapter, Soil and Water Conservation District, and Forestry Planning Committees, Dr. Walker has made significant voluntary contributions to educate forest landowners of the value of proper forest and natural resource management. To learn more about the W. Kelly Mosley Environmental Awards Program or to submit a nomination, visit aces.edu/natural-resources/mosley.

Representative Joe Lovvorn presents check to KPNC

Recently Joe Lovvorn, Alabama House District 79 Representative, presented a check to Auburn University School of Forestry and Wildlife Sciences to benefit the Kreher Preserve and Nature Center.

Left to right: SFWS development director Heather Crozier, Representative Joe Lovvorn, outreach administrator Jennifer Lolley, and SFWS Dean Janaki Alavalapati.

Wildlife students gain real world experience in Africa

by Maggie Smith

Wildlife student Brae Buckner handles bones found during a hike in the neighboring Mlawula Nature Reserve.

In August 2017, eight students majoring in wildlife ecology and management and wildlife pre-veterinary medicine had the opportunity to gain hands-on experience and exposure to wildlife management and conservation issues in southern Africa.

The 15-day trip included a 10-day stay at the Mbuluzi Game Reserve in Swaziland and a three-day stay at Kruger National Park in South Africa.

The trip was led by SFWS professor Dr. Stephen Ditchkoff and Dr. Bret Collier, an associate professor at the Louisiana State University School of Renewable Natural Resources. The two professors wanted to provide students a way to understand wildlife management and conservation issues present in southern Africa, develop an understanding of Swazi and South African culture, and recognize the similarities and differences in how society and culture drive wildlife management and conservation in North America.

Marisa Pierluisi (Auburn student), Gabby Benavides (Savannah Research Center), Monday Mdluli (University of Swaziland student), Bethany Guined (Auburn student), Marshall Herron (Auburn student), Sophi Fox (Auburn student), Brittney Finn (AU student), Brae Buckner (Auburn student), Alisia Diamond (Auburn student), Bruno Ortiz (intern).

From left to right below the flag are: Mdu Ngwenya (Savannah Research Center), Zamekile Bhembe (University of Swaziland student), Autumn Patterson (Auburn student), and Phumlile Mabuza (Savannah Research Center).

While visiting the Mbuluzi Game Reserve, students were able to gain hands-on experience in the field. "They spent one-half to three-quarters of each day in the bush, sometimes alone with only one other student, and so they really developed an understanding of the floral and faunal characteristics of the region, as well as the climatic influences on life in this region," Ditchkoff said.

During their time spent in the field, students ran camera surveys for large mammals, trapped guinea fowl and impalas, went bird watching, and assisted University of Swaziland graduate students with small mammal research.

Brae Buckner, a student who attended the trip, said she was blown away by her experience in Swaziland.

Buckner and other students were able to offer their input on how to combat the destruction of sugar cane fields caused by warthogs and vervet monkeys. "We were able to give our input on ways that we thought would help decrease this problem, such as creating greater edge habitats and keeping people on guard to lethally manage these nuisance animals," Buckner said.

The rest of the trip provided the opportunity for students to see large mammals for which South Africa is famous: lions, buffalo, zebras, elephants, and many more. "The first day in Kruger National Park is a life-changing experience for them all, and it always brings at least one student to tears," Ditchkoff said.

Ditchkoff said the trip allowed the students to draw parallels to what they learn in the classroom and to enhance their understanding of the real-world application of the skills they learn in class.

> "Seeing these animals in their natural habitat displaying natural behavior, without human intervention, was by far the most incredible experience of my life."
>
> - Brae Buckner

"The exposure that the students get to other challenges and societal pressures with wildlife management and conservation is invaluable," Ditchkoff said.

Ditchkoff also said the trip was beneficial because students learned that some wildlife and conservation issues dealt with in North America are not necessarily different from those in southern Africa.

"Overall, it was an incredibly humbling experience that I believe has changed the way I look at wildlife management," Buckner said.

Ditchkoff and Collier plan to take the trip again in 2018 with students from both Auburn and LSU.

SFWS to begin offering online graduate certificate programs for working professionals

The School of Forestry and Wildlife Sciences recognizes a need for more opportunity and convenience for professionals to pursue continued education and advanced degrees. This year the school has proposed several online graduate certificate programs to support individuals who wish to further specialize or advance in their careers.

Earning a certificate often takes less time and is more affordable than traditional graduate programs. And because classes are online, students can complete courses at a time that is convenient for them, allowing time in their schedules for other priorities.

Courses are available now and, pending approval by the Alabama Commission on Higher Education in March 2018, individuals may begin applying credit towards a certificate program in restoration ecology, one-health, or forest finance and investment beginning this fall.

The restoration ecology graduate certificate is designed to help students better understand natural processes in terrestrial ecosystems and provide them with information on processes and practices that are relevant to the restoration of these ecosystems.

The forest finance and investment certificate was developed for forestry professionals or other types of professionals, such as a real estate brokers, bankers, accountants, or appraisers with interests in forest operations or forest investments. With this certificate, students may customize the program based on their background to either learn more about forest operations and investments or to gain the skills necessary to make sound forest finance and investment decisions.

The One Health graduate certificate program is based on the 'one-health' concept that health related interactions among people, animals, and the environment have profound influences on disease risk, transmission, and prediction efforts. This certificate will prepare individuals to educate and inform people about One Health and those factors which continuously cause variation in the interacting processes among people, animals, and the environment.

Online graduate certificate programs require 12–15 credit hours of online coursework, which can also be applied toward the pursuit of a graduate degree if desired. Students must apply through the Auburn University Graduate School, however there is no GRE required and no minimum GPA.

To learn more about the graduate certificate programs, visit http://sfws.auburn.edu/online-professional-graduate-certificate-programs.